

FEDERAL TRADE COMMISSION

PROVIDER COMPETITION AND QUALITY:
LATEST FINDINGS AND IMPLICATIONS
FOR NEXT GENERATION OF RESEARCH

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DR. CLANCY: Good morning. I'm Carolyn Clancy from the Agency for Healthcare Research and Quality, and I very much want to thank Chairman Muris, David Hyman, Sarah Mathias, and others from the FTC for joining us in this research agenda development meeting, and also for the fabulous work they've done in organizing the hearings on health care, many of which focus on health care quality. I particularly want to give thanks to David Hyman, who not only has done a terrific job but makes it all look very, very easy.

And I also want to note that our being here today is something that we've discussed a number of times at the agency, although I must say it sort of felt like a fantasy then. So it's quite lovely to be here concretely. And it's very much, I think, a product of Warren Greenberg when he spent a few years with us as a visiting scholar at the agency, starting this series of conversations, since he had been at the FTC before. So thank you for that, Warren.

There are a couple, at least, important aims of today's discussion. The first is to share and discuss the latest findings from some very recent research related to provider competition and quality, and implications that they have for antitrust policy. This

1 is clearly squarely within the jurisdiction of the
2 Federal Trade Commission.

3 And the second is to develop an agenda to
4 anticipate the near future policy challenges and where
5 we're going to need a better evidence base to address
6 some of the challenges facing the healthcare system.

7 We have a very wonderful group today. A couple
8 of folks I had the opportunity to testify with at one of
9 the hearings yesterday, including Marty Gaynor, who did a
10 fabulous job, and almost persuaded me of some things I
11 wasn't sure I believed. So I have a feeling that today's
12 discussions will be really wonderful.

13 We have researchers here; some policy-makers
14 who rely on research. We have quantitative researchers
15 and qualitative researchers, and legal and policy
16 analysts. So I think this is going to be a really
17 terrific conversation.

18 I see this very much as fitting within AHRQ's
19 agenda because we're very proud of the work that we've
20 done to be able to develop evidence to inform policy
21 decisions.

22 We don't regulate health care or make policy,
23 but we do consider it a very important priority for us to
24 be able to work closely with those who do so that we can
25 anticipate their needs and make sure that the research

1 investments we're making fit very squarely with the needs
2 of policy-makers. Timing is sometimes a little bit of a
3 challenge here, but we're still working on that.

4 I also wanted to leave you with one provocative
5 thought, and actually risk embarrassing myself in front
6 of a couple of my colleagues. I got my issue of the New
7 England Journal this week early. Normally this only
8 happens when all of the articles are focused on sub-
9 molecular topics. But actually, this week there are two
10 articles on quality of care.

11 And so I wanted to make you aware, particularly
12 those of you who believe that competition inexorably
13 leads to better quality of care, one of the articles
14 compares the performance of the Veterans Affairs health
15 care system to Medicare. And I have to say that the
16 performance ratings, that is to say, the percentage of
17 evidence-based care that is provided for the VA, are
18 about the best numbers I've ever seen anywhere.

19 Now, it does make you wonder a little bit about
20 some of the competitive aspects here. I interpret this
21 as underscoring the importance of our understanding how
22 that happened and why, and what can be replicated and so
23 forth. So you'll probably read about it in the headlines
24 tomorrow, but I just wanted to bring that to this
25 conversation as well.

1 We've asked Larry Bartlett here to facilitate
2 today's discussions, and Larry has always done a really
3 fabulous job of doing this. So I want to thank you for
4 being here today as well.

5 So without further ado, it gives me great
6 pleasure to introduce to you Chairman Tim Muris.

7 CHAIRMAN MURIS: I'm an on-leave college
8 professor, so I have to stand in front of the class.

9 I want to welcome you here today.

10 VOICE: Microphone.

11 CHAIRMAN MURIS: Here's another one. Is this
12 one working? Okay. Thanks. I wanted to welcome you all
13 here today for this research conference, which we're
14 sponsoring jointly with AHRQ. We're certainly pleased to
15 host the conference.

16 And I want to acknowledge -- to begin, to thank
17 Carolyn and her team, and to acknowledge the hard work
18 and planning that goes into any effort such as this.
19 This conference had its origins in a proposal by Warren
20 Greenberg, who is an FTC alum, to AHRQ for a conference
21 on -- are we getting some more? I'm going to have
22 multiple ones here now? Okay.

23 Warren had this idea for a conference. When he
24 left AHRQ for the GAO, Peggy McNamara took over the
25 project. She reconceptualized the conference, and worked

1 tirelessly to pull everything together. Here at the FTC,
2 David Hyman, Sarah Mathias, Cecile Kohrs, and Nicole
3 Gorham of the General Counsel's office assisted in
4 several ways. And again, I want to thank everyone. I
5 hope it's the first in a series of collaborations between
6 AHRQ and the FTC.

7 I suspect that many of you are wondering,
8 particularly those of you who don't know a lot about the
9 FTC -- we may be somewhat mysterious to you. In the
10 history of dealing with some of these health care issues,
11 I think the Commission has done well.

12 But there are times when I think we felt a
13 little bit like the famous American philosopher, Lawrence
14 Yogi Berra. When he was in high school, he was
15 confronted -- he wasn't doing very well, and he was
16 confronted by the nuns, who were actually berating him.
17 And they finally said, "Lawrence, don't you know
18 anything?" And he looked back and he said, "I don't even
19 suspect anything."

20 I think at the beginning, at least some could
21 assert that about the FTC and quality. But I think
22 actually we have become fairly sophisticated. And let me
23 just tell you briefly about us, those of you who don't
24 know, and a refresher course for those who do.

25 We enforce competition in consumer protection

1 law and policy at the federal level. And that means that
2 we enforce antitrust laws and a large number of federal
3 statutes involving consumer protection and consumer
4 information.

5 We're alleged to be an expert administrative
6 agency. Part of that means that we research and report
7 on the state of competition in the performance of various
8 markets. We often advocate statutory and regulatory
9 improvements to make markets work better. We promote
10 informed consumer choice and public understanding of the
11 competitive process. We enforce prohibitions on business
12 practices that are, under our statutes, anticompetitive,
13 deceptive, or unfair to consumers.

14 The seal of the FTC indicates that we've been
15 in business since 1915. We often make headlines when we
16 oppose a large corporate merger or bring consumer fraud
17 against internet scam artists and psychic hotlines.
18 Believe it or not, we even sued Miss Cleo but, you know,
19 surprisingly, she didn't see it coming.

20 We make fewer headlines in matters involving
21 health care quality. In a recent article, and an
22 excellent article which I commend to everyone, in Health
23 Affairs, co-authored by three people sitting in this
24 room, competition law was described as the forgotten
25 stepchild of health care quality. I think this

1 conference is a first step toward familial
2 reconciliation. It's also a continuation of our efforts
3 to understand the latest research about healthcare
4 quality.

5 To be sure, our enforcement and research
6 efforts in health care are extensive and long-standing.
7 In the mid-1970s, when I was an assistant to the director
8 of the FTC's planning office, we established a task force
9 to investigate occupational regulation in several
10 industries, including healthcare.

11 In the intervening three decades, the FTC has
12 been a constant presence in health care. Each of our
13 three bureaus -- competition, consumer protection, and
14 economics -- plays an important role.

15 The Bureau of Competition has sued hospitals,
16 physicians, trade associations, pharmaceutical companies,
17 and other entities engaged in anticompetitive conduct.

18 The Bureau of Consumer Protection has a long
19 history of attacking deceptive advertising and marketing
20 of a wide range of health care goods and services,
21 including miracle cancer cures and weight loss diets and
22 pills. The Bureau now faces new and challenging
23 initiatives involving direct-to-consumer advertising of
24 prescription drugs, health claims on food products, and
25 consumer patient privacy.

1 The Bureau of Economics assists the other
2 Bureaus in pursuing these enforcement initiatives. It's
3 also published several important papers on health care
4 and competition, and the Bureau of Economics supervised
5 several of the research papers you will hear today.

6 As many of you know, this is not our first
7 conference in the intersection between health care and
8 quality. We're about halfway through seven months of
9 hearings on the subject. Not coincidentally, we are now
10 focusing on quality. We held hearings yesterday, at
11 which Carolyn spoke. Tomorrow and the day after, we will
12 hold hearings on hospital and physician markets from a
13 consumer information and quality perspective.

14 Of course, you are all invited to attend these
15 hearings or any of the sessions that we are holding.
16 We're always looking for speakers, so you should feel
17 free to volunteer, and many of you in fact have spoken or
18 will speak.

19 In the last year, we've also sponsored two
20 other relevant workshops, one last September, which
21 focused extensively on health care and competition law
22 and policy, and the other last November involved
23 e-commerce. It included sessions on telemedicine and
24 pharmaceutical sales over the internet.

25 Around the FTC, we call these endeavors policy

1 research and development. Our goals for the health care
2 policy R&D include information gathering, dialogue, and
3 consensus-building.

4 The skeptics among you may wonder whether
5 competition law is the forgotten stepchild of health care
6 quality for a good reason. Stated differently, if one
7 believes that the Commission exercises its enforcement
8 powers based primarily on how the conduct in question
9 affects price, one could fairly ask how serious we are
10 about quality and about non-price competition more
11 generally.

12 Let me assure you that the commission
13 recognizes that quality is a crucial part of the
14 competitive mix when purchasing health care, or anything
15 else, for that matter. A sensible competition policy
16 must include issues of quality.

17 Of course, our recent health care cases have
18 mostly not required a sophisticated analysis of quality
19 because the challenged conduct was naked price-fixing.
20 Such conduct is summarily condemned under the antitrust
21 laws because it has no pro-consumer justifications.

22 It doesn't follow, however, that all collective
23 conduct by competitors is problematic. For example, when
24 competitors such as physicians join together to create
25 efficiencies and improve the quality of care, we will

1 examine that conduct under a different lens.

2 Last year, Commission staff closed an
3 investigation in which physician collaboration resulted
4 in a large degree of market concentration. Nevertheless,
5 the group demonstrated that considerable efficiencies
6 resulted from their collaboration, including substantial
7 improvements in the quality of care.

8 Our staff also issued a favorable advisory
9 opinion to an organization of independent physicians in
10 Denver who proposed an innovative form of clinical
11 integration to enhance quality. The staff concluded that
12 the physicians' collective negotiation of fees appeared
13 to be reasonably related to the physicians' proposed
14 clinical integration and quality objectives, even though
15 there was no financial integration.

16 Now, as these two matter demonstrate,
17 competition law supports collaborative efforts to improve
18 health care quality. We will always listen to anyone who
19 can articulate how a particular transaction or specific
20 conduct will lead to efficiencies in the financing or
21 delivery of health care services.

22 We'll pay close attention to such arguments in
23 weighing the competitive implementations. Moreover,
24 because quality is so important in health care, we will
25 aid on the side of conduct that promises to improve

1 patient well-being.

2 Now, to be sure, antitrust enforcers are
3 appropriately suspicious of concerted conduct by
4 competitors. As the Supreme Court noted in an FTC case,
5 Indiana Federation of Dentists, there is always the
6 danger that self-interested providers will preempt "the
7 working of the market by deciding that customers do not
8 need that which they demand."

9 Quality encompasses a range of issues, from
10 objectively defined professional norms for quality, to
11 service quality, to matching the care that is provided to
12 patient preferences. In the future, we expect to
13 confront more arrangements involving challenging issues
14 of quality and non-price competition.

15 Not surprisingly, we have more familiarity with
16 some aspects of health care quality than others. In
17 keeping with the basic medical insight that diagnosis
18 must precede treatment and that knowledge is necessary
19 both to diagnose and to treat, we are using our hearings
20 and this conference to study quality issues in the
21 evolving health care market. We will use this
22 information in future investigations and cases.

23 Finally, although the Bureau of Consumer
24 Protection emphasizes out-and-out fraud, consumer
25 information in health care raises issues that are

1 obviously not limited to miracle cancer cures.
2 Information asymmetries in health care are pervasive,
3 particularly with respect to quality.

4 Concerns about patient privacy are common
5 place. The hearings in this conference help us study
6 these issues. We are considering, with your help, the
7 role the Commission should play in ensuring that
8 Americans have access not just to high quality care but
9 to high quality information to assist them in making
10 decisions about their own health.

11 There is no question that applying competition
12 law and policy to health care is challenging and
13 sometimes quite controversial, particularly when the
14 issue is privacy -- I'm sorry, is quality. As Bob
15 Pitofsky, my good friend and immediate predecessor as
16 Chairman, noted in a speech he gave in 1997 to the
17 National Health Lawyers Association, "As markets have
18 become more competitive and our antitrust law analysis
19 more sophisticated, and even as policy-makers rely more
20 and more on competition as a useful tool for improving
21 the delivery of health care, the question continues to be
22 raised: Is competition a good idea in this context?"

23 This conference, our hearings, and our broader
24 research and enforcement agenda reflect the Commission's
25 continued commitment to promoting competitive health care

1 markets. They reflect our efforts to ensure that
2 Chairman Pitofsky's rhetorical question will continue to
3 be answered in the affirmative.

4 Thank you for your attention and your
5 willingness to assist us in this challenging endeavor.

6 Let me now turn, I guess, to Larry, and we can
7 spend the rest of the day learning more about quality and
8 competition. Because of the miracles of modern
9 technology, I'm actually going to sit in my office and be
10 able to -- in between meetings, which I haven't scheduled
11 too many -- hear a lot of what you're going to do today.
12 So thank you very much.

13 (Applause.)

14 DR. BARTLETT: Good morning, everybody. I'm
15 Larry Bartlett. I've had the pleasure over the years to
16 work with AHRQ in facilitating a number of agenda
17 development meetings. So I'm delighted to be here again.

18 As opposed to Chairman Muris, whose experience,
19 academic experience, is that of a professor, my
20 experience is very much that of a student. So I'm used
21 to sitting and trying to make myself look small and
22 inconspicuous. So I will play that role here.

23 I'd like to take a few minutes in just a moment
24 to operationalize the agenda that you have all seen. But
25 before I do that, I think the most important thing that

1 we can do at this moment is to make sure we all introduce
2 ourselves to one another. Because what I think is unique
3 about this meeting is just the quality of the
4 participants and the intellectual capital and
5 perspectives that you bring.

6 So what I'd like to do is ask each of us to go
7 around the room very briefly and introduce ourselves.
8 Then we'll talk about the agenda, and then we'll move on
9 to the good stuff.

10 Irene, how about we start with you, please.

11 DR. FRASER: Good morning. I'm Irene Fraser.
12 I'm director of the Center for Organization and Delivery
13 Studies at AHRQ. And many of my staff are here, and
14 many -- I see many of our grantees here as well.

15 Our center does research and supports research
16 on delivery, organization, and markets. And the whole
17 issue of competition in markets is a very high priority
18 for us, both in the research and in the databases that we
19 accumulate to support that research.

20 DR. ROMANO: My name is Patrick Romano. I'm a
21 general internist as well as a general pediatrician and
22 health services researcher at U.C. Davis in Sacramento,
23 California. And I'm here because of my work related to
24 outcomes measurement in quality of care.

25 DR. IEZZONI: I'm Lisa Iezzoni. I'm in the

1 division of general medicine and primary care of Beth
2 Israel Deaconess Medical Center in Boston. And I'm a
3 health services researcher interested in quality
4 measurement.

5 DR. ROSENTHAL: Hi. I'm Meredith Rosenthal.
6 I'm a health economist from the Harvard School of Public
7 Health, and I'm a co-investigator on one of AHRQ's PO1
8 grants on markets.

9 DR. SAGE: I'm Bill Sage. I'm a law professor
10 at Columbia Law School, and I've done a lot of work on
11 antitrust law and non-price competition in healthcare,
12 most with Professor Peter Hammer, who's across the way.

13 DR. MILSTEIN: I'm Arnie Milstein. I'm
14 medical director at the Pacific Business Group on Health
15 and head of their clinical consulting practice at Mercer.
16 I've written about the psychological dimensions of
17 quality perception.

18 DR. VOGT: Hi. I'm Bill Vogt. I'm an
19 economist at Carnegie Mellon University. Presently I'm
20 on leave at the FTC. I'm interested in competition in
21 health care markets.

22 DR. STRYER: Good morning. I'm Dan Stryer.
23 I'm a general internist at AHRQ. I'm the acting director
24 for the Center for Quality Improvement and Patient
25 Safety.

1 DR. TOWN: I'm Bob Town, an economist at
2 University of Minnesota, and broadly interested in
3 competition in health care markets.

4 DR. WONG: I'm Herb Wong. I'm an economist
5 with the Agency for Healthcare Research and Quality. And
6 my primary responsibilities are involved in getting the
7 HCUP databases out to all of you.

8 DR. PAULY: My name is Mark Pauly. I'm a
9 health economist. I'm chair of the Department of Health
10 Care Systems in the Wharton School at University of
11 Pennsylvania.

12 DR. VITA: Hi. I'm Mike Vita. I'm an
13 assistant director for antitrust in the FTC's Bureau of
14 Economics.

15 DR. YOUNG: My name is Gary Young. I'm a
16 professor at Boston University School of Public Health,
17 and direct the program on health policy and management
18 there. And one of our interests is competition law.

19 DR. HYMAN: I'm David Hyman. I'm a professor
20 at the University of Maryland School of Law, and in my
21 free time I'm special counsel at the Federal Trade
22 Commission. And I'm coordinating the extended set of
23 hearings that we're doing over the course of this year on
24 health care and competition.

25 MS. McNAMARA: Good morning. My name is Peggy

1 McNamara. I'm a policy analyst at the Center for
2 Organization and Delivery Studies at AHRQ.

3 DR. KESSLER: Good morning. I'm Dan Kessler.
4 I'm a professor at Stanford Business School, currently
5 visiting at the Wharton School at the University of
6 Pennsylvania.

7 DR. BARTLETT: If anybody cannot hear anything
8 that's being said around the room, just wave wildly.
9 Thank you. So if I could ask, Brent, if you'd just belt
10 it out.

11 DR. JAMES: Brent James from Intermountain
12 Health Care in Salt Lake City. I head the Institute for
13 Health Care Delivery Research. We're a large integrated
14 delivery system that's made clinical quality our core
15 business strategy, so this is dead-on topic for us.
16 Heavily involved with AHRQ as well.

17 MR. MUTTER: Ryan Mutter at the AHRQ's Center
18 for Organization and Delivery Studies. I'm also a Ph.D.
19 candidate in health economics.

20 DR. HAMMER: Peter Hammer. I'm a professor at
21 the University of Michigan Law School, and work with Bill
22 Sage. We've done a lot of work on how antitrust courts
23 and judges deal with quality issues in health care.

24 DR. GREENBERG: My name is Warren Greenberg.
25 I'm a professor of health economics at George Washington

1 University. And I was scholar in residence at AHRQ part-
2 time for the last four years preceding this. And I spent
3 my beginning career with the Federal Trade Commission for
4 eight years.

5 MR. GEPPERT: Hi. My name is Jeffrey Geppert.
6 I'm a senior analyst at the Center for Primary Care and
7 Outcomes Research in the Center for Health Policy at
8 Stanford University.

9 DR. GAYNOR: I'm Marty Gaynor. I'm an
10 economist at Carnegie Mellon University. And I'm
11 interested in competition in healthcare markets and
12 antitrust.

13 DR. ENCINOSA: William Encinosa, health
14 economist at the agency. I've been working on hospital
15 finances and patient safety indicators.

16 DR. CHRISTIANSON: Jon Christianson, University
17 of Minnesota.

18 DR. CASALINO: Larry Casalino. I'm a family
19 physician at University of Chicago.

20 DR. BAZZOLI: And I'm Gloria Bazzoli, a
21 professor of health administration at Virginia
22 Commonwealth University.

23 DR. BARTLETT: Thank you. Well, the
24 conversation today, much of the discussion is going to
25 really be centered around the people at this table. We

1 have a wonderful group of individuals sitting off the
2 table and listening to this discussion. I want to give
3 them an opportunity to very briefly introduce themselves
4 as well.

5 Sarah, how about we start over here?

6 MS. MATHIAS: Sarah Mathias with the FTC.

7 MS. KOHRS: Cecile Kohrs with the FTC.

8 DR. BARTLETT: Please. Denise?

9 DR. REMUS: Denise Remus with AHRQ.

10 MS. ORLEFSKY: Tamara Orlefsky, AHRQ and UNC
11 Chapel Hill, Ph.D. candidate.

12 DR. FRIEDMAN: I'm Gary Friedman and I'm at
13 AHRQ also.

14 MR. HAGAN: Mike Hagan. I'm an economist. I
15 work with external investigators at AHRQ.

16 DR. BARTLETT: Please.

17 MS. MORLAND: Annika Morland with the FTC.

18 MR. VOLPER: Paul Volper with the Bureau of
19 Economics at the FTC.

20 MR. SILBERG: Seth Silberg, FTC.

21 MR. IOSO: Bob Ioso, economics, FTC.

22 DR. BARTLETT: Okay. Thank you very much.

23 Just touching very quickly on the objectives of this
24 meeting, you have a good sense that we have many
25 disciplines represented. We have economists, clinicians,

1 health services researchers.

2 What we are trying to do is really sort of
3 bring those different perspectives together and look at
4 what is known and understand better what the health
5 services research tells us about competition and quality
6 in the health care field.

7 We're also going to be spending time today
8 looking at some new research, sharing it, discussing it.
9 And very importantly, as we build on this discussion, our
10 hope is that this afternoon we will begin to talk about
11 what's referred to here as the next generation of
12 research, and talk about what you folks from your
13 different perspectives would suggest would be the high
14 priority health services research that should be
15 conducted in this area, health care competition and
16 quality.

17 Let me give you a quick take on how the agenda
18 is set up. And I should tell you that my main role here
19 is making sure that all the good information, all the
20 good discussion, that we hope to share today occurs, and
21 one thing doesn't crowd out the others.

22 This agenda, if you take a look at it -- I
23 think it's in Tab 1 -- really has four major components.
24 In a few minutes, we will turn to a series of three
25 presentations. They're referred to as overview

1 presentations in the agenda.

2 Actually, when Peggy and I were talking,
3 they're much more foundation presentations, I think
4 really building a solid foundation for the different
5 disciplines represented here so we can move forward.
6 I'll talk about them in just a second.

7 In subsequent sessions, we will talk about some
8 new research dealing with physician competition and
9 quality. And I regret to tell you that Carol Simon, who
10 was going to present her work today, is unable to attend.
11 So we will use the time that she would have had for her
12 presentation to make sure that we have adequate
13 discussion.

14 We then have a series of presentations on
15 hospital competition and quality, presenting new
16 research. And in each of those -- each of those
17 particular segments, what we have done, we've asked the
18 people making the presentations to talk for not more than
19 20 minutes. And I'll be the time traffic cop, if you
20 will. That's why I'm sitting here. I'll be passing
21 notes. We haven't quite figured out the timing system
22 here.

23 We then have a series of commentators who will
24 share their thoughts on the material that's presented.
25 I'm going to ask them to limit their remarks to ten

1 minutes apiece. And then we're going to go out to the
2 group for any thoughts or observations or implications
3 for new research that are generated by the presentations.

4 After we go through those panel presentations
5 on new research concerning physician competition and
6 hospital competition and quality, the latter part of the
7 agenda is going to focus on what does it mean in terms of
8 what's the new research agenda? What are the priorities
9 for new work that needs to be done in the area of
10 competition and quality?

11 We will hear from a number of folks who will
12 share with us FTC's perspectives on what work is needed,
13 and then we're going to open it wide open to the group
14 for their thoughts as well. And then, Irene, we're going
15 to come back to you at the end of the day to wrap things
16 up.

17 The last thing I'd say before we move into the
18 good stuff is I think you found a number of loose
19 materials at your place. In many cases, those are
20 updates to presentation materials that you'll find in the
21 book, so they'll replace certain drafts that you have, or
22 they're new material. Carol Simons work, while she's not
23 going to be presenting it is nonetheless included so you
24 can stick that in the appropriate tab.

25 Let me just stop here and ask if there are any

1 questions from anybody about the objectives of the
2 meeting, what we're trying to do, or how we're going to
3 go about trying to accomplish those objectives.

4 (No response.)

5 DR. BARTLETT: We're okay? All right. Then
6 let us then move to the first segment of the agenda,
7 those foundation presentations. We're going to hear from
8 Mark Pauly in just a second, who's going to talk with us
9 about the underlying conceptual models and some history
10 about competition in medical services and quality of
11 care.

12 We're then going to move right from Mark's
13 presentation to Patrick Romano, who's going to talk about
14 quality measurement issues. And then from there, Marty,
15 we're going to go to you, who will provide us with an
16 overview of the appropriate literature, both the
17 conceptual and the empirical literature, in this area as
18 well.

19 So we will take those three presentations in
20 sequence, and then we'll open it up for discussion.

21 So Mark, can I turn to you, please, if you want
22 to come on -- swing up this way?

23 DR. PAULY: I'm happy to be here to give one of
24 the first talks about foundations. That means, at least
25 for me, that I'll be able to listen more attentively to

1 what look like a fascinating set of subsequent talks and
2 not have to worry about what I'm going to say.

3 And I need to warn you, as probably most people
4 who know me have already guessed this: I'm a congenital
5 economist. Oh, missed all the great jokes there. I'm a
6 congenital economist, so my definitions and concepts will
7 be economic ones.

8 And it's actually interesting, I think, to
9 compare what I'm going to say with what Dr. Romano is
10 going to say next. I believe it's possible to translate
11 one set of language into the other, and that's probably a
12 large part of what we'll be about today.

13 So this is what I intend to talk about. I want
14 to provide some benchmark economic definitions of key
15 terms like quality and competition. I do want to say a
16 bit about the normative economics of optimal quality and
17 the optimal level of quality from the viewpoint of
18 economics for any product, and might as well assume for
19 medical care, too, is the Goldilocks definition: neither
20 too high nor too low, but just right. So that's what we
21 want to look at.

22 I want to talk a little bit about some positive
23 models of alternative institutional settings in which
24 competition occurs and quality gets determined, primarily
25 two, one that I called unfettered competition and one I

1 call administered prices. And then I was also asked to
2 show some basic data on trends in competition and discuss
3 what is lacking in research. So I'll try to do all of
4 that in about 20 minutes.

5 Okay. Well, the basic definition of
6 competition in economics actually has a number of
7 different flavors. Usually the kind of person in the
8 street, or for some cases the judge in the street
9 definition, usually focuses on the number of sellers or
10 some measures of the concentration of sellers. But a
11 sophisticated interpretation of what competition can mean
12 can suggest that you can have competition even without
13 very many sellers if, for example, barriers to entry are
14 unusually low.

15 So in Philadelphia, formerly known as the City
16 of Brotherly Love, now known as the City of Health
17 Insurance Duopoly, we actually -- at least I don't lay
18 awake nights worrying about that. As an employee of the
19 University of Pennsylvania, I figure if we get persecuted
20 too much, since we're the largest private employer in
21 town, we can self-insure and organize our own health
22 insurance, which we have to some extent, to avoid some of
23 those nasty things.

24 Because health insurance is child's play.
25 Anybody can do it. You just have to get a lot of people

1 together and get them to agree to share their medical
2 expenses. Of course, not quite that simple, but that's
3 the idea.

4 And then finally, sometimes we measure
5 competition or its absence -- mostly its absence -- by
6 the ability to sustain above-normal profits. And at
7 least depressed hospital administrators sometimes wonder
8 why we're picking on them about competition. Look at our
9 profit margins. Look at how terrible they are. How can
10 you believe that it's not competitive? Otherwise, we'd
11 make a lot more money. So there's -- and there's some
12 truth to that, I guess.

13 Definition of quality: I think in economics
14 it's whatever matters that isn't quantity. And by
15 matters, I mean primarily matters to consumers, although
16 it's something we'll obviously talk about a lot here
17 because healthcare consumers are not necessarily
18 perfectly informed. This can be whatever matters to
19 people who have to care about the well-being of
20 uninformed consumers.

21 And I think that's important. Sometimes, at
22 least, it bothers me, and I think that it's worth noting,
23 people will talk about we have low quality healthcare in
24 the United States because many people are uninsured.

25 I tend to look at that as low quantity; at

1 least for the most part, what happens to people who are
2 uninsured is that they use less of the services that the
3 rest of us use. Probably they use somewhat different
4 services as well, but primarily the adverse consequences
5 that flow from being uninsured are probably correctly
6 described as low quantity, not low quality. And you can
7 have low quantity. You can also have too high a quantity
8 as well.

9 Ordinarily, it's easiest to think about quality
10 when it follows a kind of ordered characteristics version
11 so that informed buyers -- so you could say higher
12 quality is what informed buyers would prefer at equal
13 prices. I presume, for the most part, something like the
14 mortality rate meets that criteria. And almost everybody
15 would prefer lower mortality to higher mortality at equal
16 prices.

17 Some other things, like the color of the room,
18 the color of the Jello in the hospital meal, and so
19 forth, may not be able to be ordered in such a way. But
20 for the most part, I'll be talking about these ordered
21 characteristics.

22 And I guess, to try to make a bridge to general
23 health services research, this broad definition of
24 economist quality certainly includes clinical quality,
25 but it also includes other things which we might call

1 amenities.

2 And I suppose, in a way, the most important
3 practical one that I see is -- it includes something like
4 travel time. So if, in fact, the mortality rate, even
5 holding costs constant, is lower in hospitals in
6 Philadelphia than in Scranton, there will be some
7 consumers who will rationally choose to stay in
8 Scranton -- at least they might be rationally choosing
9 that -- because they don't want to pay the time cost.

10 So that's another definition of quality, having
11 a hospital close by. We may debate at some point whether
12 that's higher or lower quality, but at least it affects
13 quality.

14 And then the final punch in with a land mine
15 slightly buried in it, efficient quality from an economic
16 point of view is where marginal benefit equals marginal
17 cost. That means that quality can definitely be too low;
18 that's where it would be worth more than what it would
19 cost to produce it. It also means that -- economists
20 have to say this -- it can also be too high.

21 When I first started teaching health economics
22 and doing research here, we talked about Cadillac quality
23 care to show that we weren't total Neanderthals. What we
24 usually meant was trying to make the case for physician
25 substitutes and arguing that some of the dimensions of

1 what physicians at the time claimed was quality could --
2 were not that important. That was Cadillac quality.

3 I find when I talk to my undergraduates now, I
4 get a blank stare. So this is Lexus quality care we may
5 not want to have. But quality can be too high as well as
6 too low, and there's some reason to pay attention to
7 that.

8 I'm going to show the picture here. You can
9 follow along with this little narrative. This is the way
10 I think of competition and quality, and try to get
11 everything or almost everything in one chart. And, oft,
12 there is sort of real world analogue of this.

13 If you array hospitals in Philadelphia or, I
14 assume, many other cities based on their price or cost
15 and something like their mortality rate for coronary
16 artery bypass grafting or some inpatient procedure that
17 has a high enough mortality rate that it varies, you tend
18 to get points like the Xs. And one of the issues here
19 is, does cost and quality trade off? Economists are fond
20 of talking about tradeoffs. We're brought up on
21 tradeoffs. We're put on this earth to talk about
22 tradeoffs. But are there tradeoffs in cost and quality
23 when it comes to health care?

24 And maybe not. Coming down on the train, I
25 passed Mike's Collision Repair, and Mike's slogan is,

1 "High quality doesn't cost. It pays." And the same
2 thing might be said for health care. And, in fact, if
3 you fit a least squares line between the quality/cost
4 combinations that I've indicated on that diagram,
5 ignoring for the moment -- assuming Os are points and Xs
6 too -- you'd probably find that a higher cost goes along
7 with a worse mortality rate. Far from trading off,
8 better quality saves money.

9 What I think, though, that economists might be
10 thinking of when they talk about tradeoffs, and I guess
11 the message here is, quality and cost don't always trade
12 off, but the punch in is they eventually trade off or
13 they should trade off if the system is highly
14 competitive.

15 Because what ought to happen-- and now we kind
16 of start the trumpets -- what ought to happen with
17 competition to make life beautiful is that those Xs would
18 start to -- first, consumers would start to move away
19 from the Xs in the high right-hand corner toward the
20 frontier, so at least from their point of view that would
21 be good for them. They'd get higher quality at the same
22 cost or lower cost for the same quality.

23 Some of the Xs might disappear. They don't
24 seem to do that much in Philadelphia, even though they
25 should. Some capitalist hospital chain comes in and buys

1 them and keeps them in existence. But maybe they should
2 disappear.

3 But maybe a more upbeat way of viewing this is
4 we love all those hospitals. Let's have them migrate
5 toward the frontier. So that's what they ought to do.
6 And then, finally, maybe even the frontier hospitals,
7 under the pressure of competition and the incentives
8 associated with it, would push the frontier further
9 toward the point of origin.

10 So that's what you'd like to see happen. And I
11 guess that is what we hope will happen under competition.
12 It's worth noting, and I actually need to correct my
13 slides here a bit, what can -- well, I need to say first
14 of all it's kind of hard oftentimes to define -- if you
15 ask the question, is quality higher under competition,
16 compared to what?

17 But it certainly is possible, especially if you
18 give economists enough time and enough rope, to think of
19 a model in which the impact of competition on quality can
20 be negative. But it can still be better off for
21 consumers. That would be the case in which quality fell
22 but price fell by a lot.

23 Or, of course, it could be that quality will
24 rise and price will stay the same. It could be that
25 quality will rise and price will fall. The only thing

1 that's ruled out, actually, is quality falling and price
2 rising. That's not supposed to happen under competition.

3 But other sorts of combinations are possible,
4 and from the viewpoint of normative economics, as long as
5 they represent something that's preferred from the point
6 of view of consumers like, for example, Mrs. A with an
7 indifference curve indicated by IA in that diagram, that
8 level of quality and cost is right for her, and some
9 higher level of quality down to the right there, some
10 lower mortality rate at a higher cost, would not
11 necessarily be desirable. So that's sort of the punch
12 line on unfettered competition. I could actually deliver
13 a whole lecture on this diagram, but I'm sure people
14 don't want me to.

15 The alternative model is the model of
16 administered pricing, where some entity -- let's call it
17 Medicare just for fun -- that's not only -- that's big --
18 a lot of insurers set prices, but if they're small
19 insurers, who cares? But if it's a big insurer setting
20 prices or if it would be government setting prices for
21 everyone, as has occasionally been contemplated in this
22 country and exists in other countries, what's supposed to
23 happen?

24 Well, this is a way to think about that. If we
25 think about setting the price at P star -- it can't go

1 below P star; it can't be above P star; that's the
2 easiest way to think about it -- what's going to happen
3 is that some of the points to the right of P star will no
4 longer be observed. Some of them may be points of lower
5 quality, higher mortality rate. But one of the little Os
6 floating over there to the right forlornly would probably
7 disappear if price was set at P star.

8 So setting price at some level can actually
9 reduce quality compared to some alternative benchmark,
10 like maybe unfettered competition. The other main point
11 that this diagram is supposed to illustrate, though, or
12 maybe convey by osmosis, is that if you raise the
13 regulated price you should get more quality. So the O
14 that wasn't feasible when price was maxed at P star
15 because that particular hospital could no longer cover
16 its cost of very high quality would be feasible if price
17 was shifted up to P double star.

18 The model that generates this kind of behavior
19 has a history in economics. It's what I call the airline
20 pub lounge war model. And the philosophy or the thought
21 there was that back in the old days, when airlines were
22 price regulated, quality was too high. That was hard to
23 believe. They left on time. They had pub lounges. They
24 had interesting flight attendants.

25 And they no longer have any of those things.

1 But the argument from sour-faced economists was, that's
2 too high a level of quality. And every time the
3 government tried to get the rate of return up to its
4 target level, which I guess in retrospect we thought was
5 too high, the excess profits would be competed away in
6 terms of quality.

7 There are some pub lounge war models for health
8 care, again, somewhat ancient now, one by me and Phil
9 Held, one by Paul Joskow, showing that where prices were
10 higher, at least some dimensions of what some consumers
11 might think of as quality, like the ability to get a
12 hospital bed when you needed one, or the ability to get
13 your dialysis on weekends or at night when it was more
14 convenient, were actually more common in places where the
15 administered price was set high compared to where the
16 administered price is set low. What we don't know
17 certainly is whether that applies to clinical quality.
18 But anyway, those are the two main models that I wanted
19 to talk about by way of foundation. And this just
20 mentions them.

21 There is a third model, price discrimination
22 and selective contracting, that I mentioned in the paper
23 but I won't talk about here. And I guess this is the
24 points that I've just made. Depending, of course, on
25 what happens to the price, the quality may either rise or

1 fall compared to unfettered competition. And at least
2 some of us who occasionally work on end stage renal
3 disease think that the very tight limits that the
4 government has put on payment for dialysis at some points
5 in time might actually have led to something that looked
6 like low quality rather than high quality, although those
7 have been relaxed somewhat, and thank goodness for
8 technological change.

9 Here are some other considerations that might
10 matter. Ordinarily you wouldn't think that a
11 monopolist -- although it's theoretically possible -- a
12 profit-seeking monopolist would provide higher quality
13 than profit-seeking competitors.

14 But if it's a nonprofit monopolist who gets its
15 jollies from quality as opposed to quantity, then it's
16 certainly possible that the nonprofit monopolist may have
17 higher quality even than the nonprofit competitive market
18 or certainly than the for-profit competitive market.

19 And the second line is one that actually is,
20 I'm sure, something we'll be talking about a lot today.
21 All of these normative conclusions about high and low
22 quality and how competition can lead to either one and
23 how it can all be great imply or assume that consumers
24 know what they're doing and that buyers know what they're
25 doing.

1 And I guess certainly in healthcare, we
2 wouldn't assume that of individual patients. We might
3 not even assume it of other proxy buyers like HMOs and
4 kindly health care benefits managers for large firms.
5 And the paradox is, sometimes a little information can
6 actually be worse than none at all, so we're not even
7 sure which way is up when it comes to information. So
8 that's an important point.

9 And the final theoretical point that I just
10 wanted to lay on the table is, it's also worth thinking
11 about, in addition to competition versus monopoly, it's
12 worth thinking about monopsony not only because that's
13 fun to say but also because potentially it is a
14 possibility with large insurers, especially if they
15 dominate a market for managed care as opposed to just
16 risk pooling.

17 So a little bit of ancient history. I'll go
18 through this very quickly. It used to be in non-rural
19 areas many disintegrated sellers -- the hospitals were
20 separate from physicians' practices, and there were
21 almost walls of separation that sort of kept it that way,
22 and everybody knew their place in the world and it was
23 lovely. But thank goodness things have changed -- and it
24 was cost-plus reimbursement because obviously nobody was
25 in this for the money and so we just needed to cover

1 their costs.

2 And things have changed, obviously, since then.
3 Part of the problem is at least a lot of the research
4 that has been done, and even some I think we may talk
5 about today, tries to compare some new arrangement,
6 particularly the arrangements that prevailed after the
7 abolition of anti-selective contracting laws in
8 California and elsewhere, with the old situation. And at
9 least I don't know how to describe the old situation.
10 But Medicare-administered pricing and selective
11 contracting did upset the good old days.

12 Recent history: Broad trends in industrial
13 structure is hospitals have integrated, both up and down,
14 for -- at least according to the research I've done, and
15 I'll also blame my colleague, Rob Burns, at Wharton for
16 this -- for no good reason other than maybe market power,
17 hint hint, but for no good efficiency reason. There has
18 been some horizontal consolidation, and M.D.'s are
19 grouping up, although the typical size group is still
20 relatively small.

21 Broad trends in payment environment: Medicare
22 is starting to throw its weight around. That's what I
23 interpret as a lot of the consequence of the Balanced
24 Budget Act. The private insurers tried to push forward
25 on pressuring providers to charge lower prices and

1 succeeded, but for various reasons, including at least
2 health economist patients sitting in their underwear got
3 harangued by their providers and therefore offered advice
4 to the HMOs, backed off.

5 Markets have segmented more, and there are some
6 hints of consumer control or more active consumer
7 participation, although I think at the moment they remain
8 more hints than facts.

9 A little bit of basic data and then I'll
10 sit down. What's been happening to horizontal
11 concentration? Well, let me show figure 3 and table 1,
12 and I'll show both of them.

13 So this is actually some data from Rob Burns.
14 And these are unweighted averages, I need to say, of
15 Herfindahl-Hirschman indexes across cities in the United
16 States. And the blue line is just basing this on
17 inpatient days and treating each hospital that's listed
18 by the AHA as a separate hospital as a separate hospital.

19 And you can see -- I guess I don't know exactly
20 what's modest and what's large here, and I'll even
21 backpedal on that a bit. But it doesn't look like
22 there's been an enormous change in concentration,
23 although there has been a slight upward trend.

24 If you take account of the system factor, that
25 some of the hospitals have been grouped into systems, and

1 assume that the hospitals within a system don't compete
2 with each other -- I actually know from experience that's
3 not necessarily true -- but if you were willing to assume
4 that, you could get more worried, especially after 1997
5 when everything started to fall apart, that the level of
6 competition was diminishing.

7 That doesn't look too terrible, though. Here
8 is some evidence on vertical integration. I'm assuming
9 everybody knows most of these acronyms here except maybe
10 GPWW, group practice without walls. And the main message
11 here is that except for acquisition, most of these other
12 ways of integrating healthcare systems rose and then
13 fell, reaching a peak around 1996 and then some of them
14 actually dropping off quite dramatically, others more
15 slowly.

16 But vertical integration seems to be ebbing
17 rather than flowing except, of course, for the
18 acquisition route. So that's the main point that I
19 wanted to make there for our future discussion.

20 Let's see. I'm missing one chart. I'll go
21 back to that other one. I hope I can go back. So I said
22 that the aggregate data show that the level of
23 competition hasn't changed all that much. But I started
24 worrying about that, and every time I go through this, I
25 get a little more worried.

1 Maybe that's hiding some things. After all, if
2 a very large city has a lot of hospitals, a few more,
3 more or less, won't make much of a difference. But my
4 very crude interpretation of the Breznehah-Rice argument
5 is that around four is the number of sellers where more
6 than four is good and fewer than four is bad.

7 And so I tried to tabulate in all U.S.
8 metropolitan areas that started out with four or more
9 hospitals in 1990, what had happened, and you can see
10 good news and bad news here. For the great bulk of
11 metropolitan areas -- in fact, for 90 percent of them --
12 they stayed above five in both years.

13 But about 10 percent of the market areas, the
14 numbers actually slipped below four, either from five to
15 three or four to three or less. And if you lived in a
16 small city, which are generally the ones that have those
17 small numbers of hospitals, actually a relatively large
18 proportion of them did slip below the competitive level.
19 So if you did want to worry about even what's happening
20 to competition, in some cases it does seem like it's
21 potentially worrisome.

22 The last thing that I wanted to say a bit about
23 was competition in certain selective procedures. One of
24 my arguments, which I'm kind of hinting at already and is
25 in the paper, is that as usual, looking at things in the

1 aggregate can be misleading because products in
2 healthcare are very different products, although they're
3 kind of sort of related.

4 And so I thought I'd look at something the
5 Pennsylvania's famous for in various ways, data on
6 coronary artery bypass grafting and its concentration.
7 And here's what the data says on that.

8 And you can basically see the message here,
9 that the number of hospitals doing CABG, in almost all
10 cities except Harrisburg where they keep the data, and I
11 guess they can keep their thumb on those hospitals --
12 although we're not actually sure about the Harrisburg
13 data; it looks a little squirrely -- but in almost all
14 cities in Pennsylvania, the number of hospitals doing
15 CABG either increased or stayed the same.

16 There was definitely an increase if we measure
17 competition by the number of people getting into the act,
18 in competition for coronary artery bypass grafting in
19 Pennsylvania. And generally, the explanation for that,
20 the intuitive explanation that is usually offered, is
21 it's a lucrative procedure given the way Medicare
22 reimburses it, and it paid to get into the act.

23 And so this does the same thing at the
24 physician point of view, and basically makes the same
25 point, that competition did increase, not as dramatically

1 as for hospitals because publication of the data on CABG
2 did cause some low-performing physicians to drop out.
3 But nevertheless, the number who entered exceeded the
4 number who dropped out. So there's also more competition
5 among physicians for doing this procedure.

6 And, let's see, let me go back here. I guess
7 the basic message then is the high profit margin on CABG
8 that caused this to happen. And I think an important
9 message for thinking about competition is that as I've
10 already said, in models of administered pricing, you need
11 to note that the extent or level of quality will be
12 determined by the price level.

13 What this experience also suggests is that the
14 extent of competition will be determined by the price
15 level. Pay a higher price, Medicare, and you're going to
16 get more people supplying this particular service. And I
17 guess the thing to worry about -- I think I have this on
18 my next slide -- the thing to worry about here is that
19 there may be economies of scale under the practice makes
20 perfect idea. So having more hospitals and surgeons
21 getting into the act doing open heart surgery, bypass
22 grafting, in Pennsylvania may not be the greatest thing
23 in the world, although it certainly makes it a lot more
24 convenient than it used to be. But that may not be the
25 only dimension of quality that we want to look at.

1 So here's my checklist for research. One, kind
2 of going along with what I've just said, I think
3 competition in quality is probably best interpreted at
4 the product level. So you need to look at it that way.

5 It's probably also interpreted differently at
6 the payment type level. I would interpret, even for a
7 given procedure, competition to work differently for
8 Medicare than for competing indemnity or even HMO
9 insurers.

10 Administered price can cause competition to be
11 a function of quality. That was the point I just made.
12 And the journalistic -- or the headline on the stories
13 about the proliferation of CABG in Pennsylvania is,
14 medical arms race restarts.

15 We usually look at arms races, appropriately,
16 as undesirable. But somebody must like what the
17 hospitals are arming themselves with, so there must be
18 some positive value. If we're going to make some
19 normative judgments here, we need to worry about that,
20 something to attract people to the hospitals that are
21 doing these things.

22 Some further thoughts. Economies of scale in
23 hospitals: I, along with a number of others, have looked
24 for many years for economies of scale in hospitals.
25 Generally, what we find is above about 100 or 150 beds,

1 there aren't any. In fact, the average cost curve may
2 tweak up a little.

3 But one possibility is that that finding is
4 affected by our inability with the data generally
5 available to adjust for quality. If you did adjust for
6 quality, you might find economies of scale. Or I cite
7 some literature in the paper that suggests that if
8 hospitals compete with quality, if you don't properly
9 adjust for quality you'll find constant returns to scale
10 no matter what is true in reality.

11 And then the two other things that I do worry
12 about, and maybe these will be a special on TV pretty
13 soon, the strange case of hospital outpatient care. It's
14 growing rapidly. What's going on there? What's the
15 competitive situation? What's quality got to do with
16 that? And likewise, the rise of hospitalists and
17 salaried docs. Again, why is that happening and what's
18 quality got to do with it?

19 Thank you.

20 DR. BARTLETT: Thank you, Mark. We'll now turn
21 to Patrick Romano, who I think will be able to provide a
22 complementary presentation focusing on quality
23 measurement.

24 DR. ROMANO: Okay. So I'm going to talk a
25 little bit about the evolving science of quality

1 measurement: promises and cautions. We'll start with a
2 clinical perspective or definition of quality.

3 Dr. Pauly has talked about quality from the
4 economist's perspective as everything that isn't price.
5 From the clinical perspective, a variety of definitions
6 that I'll offer to you.

7 We really have to credit the work of Avedis
8 Donabedian, who was one of the forefathers, if you will,
9 in the field of quality measurement. And he originally
10 defined quality as a management that's expected to
11 achieve the best balance of health benefits and risks,
12 taking into account the patient's wishes, expectations,
13 and the distribution of that benefit within the
14 population.

15 The Institute of Medicine defined quality as
16 the degree to which health services increase the
17 likelihood of desired health outcomes -- of course,
18 desired by whom? That's an open question -- and are
19 consistent with current professional knowledge, which of
20 course may be wrong.

21 Brook and McGlynn: Similarly, the emphasis is
22 on high quality care producing positive changes or
23 slowing the decline in health.

24 There are three general approaches to quality
25 measurement that have been described in the literature,

1 originally by Donabedian. The first approach focuses on
2 structure, that is, the conditions under which care is
3 provided. Here we talk about the material resources that
4 we use to provide care, the human resources, and the
5 organizational characteristics, the characteristics of
6 the organizations in which care is provided.

7 Process features are the activities that
8 constitute healthcare itself, what we do in screening and
9 diagnosis, treatment and rehabilitation, education and
10 prevention, our use of medications, our use of laboratory
11 tests, our use of visits and hospital days.

12 Finally, outcomes are changes attributable to
13 health care, things such as mortality and morbidity
14 functional status. Knowledge, attitudes, and behaviors,
15 of course, are outcomes of certain types of health care
16 delivery. If our goal is to reduce smoking, we need to
17 look at changes in smoking behavior as a consequence.
18 And finally, satisfaction may also be viewed as an
19 outcome.

20 So let's think about this a little bit in the
21 context of competition and consolidation. Structural
22 measures, I think, most of us really view as enabling
23 factors that make it easier or harder for professionals
24 to provide high quality care.

25 In empirical studies, these measure are often

1 weakly associated with process and outcome measures, and
2 usually explain relatively little of the observed
3 variability in processes and outcomes.

4 We also have a problem because structural
5 measures are easy to measure but they're often hard to
6 modify. If we're looking at features of hospitals
7 such as teaching characteristics or staffing
8 characteristics, these things cannot be studied typically
9 in randomized controlled trials. Therefore, we don't
10 really know whether these structural measures improve
11 quality. We assume that they do from observational
12 studies. But in the absence of randomized trials, we're
13 working with limited data.

14 The causal relationships are often unclear. Do
15 better structures lead to better processes? Or,
16 conversely, do better processes create a demand for
17 better structures? The classic example is the
18 relationship between volume and outcome. Does higher
19 volume actually lead to better quality of care, that is,
20 practice makes perfect? Or does better quality lead to
21 selective referral, therefore the aggregation of patients
22 in higher-volume, better quality hospitals?

23 So structural measures really should probably
24 be viewed as markers or facilitators of quality rather
25 than as true measures. The empirical studies of

1 competition and quality have really not relied on
2 structural measures, as we'll see in a minute.

3 And we also have a problem in this area because
4 pro-competitive and anticompetitive interventions may
5 directly affect structural measures. So as hospitals
6 consolidate, they often consolidate services.

7 One hospital becomes the orthopedic hospital.
8 Another hospital becomes the women and children's
9 hospital. Therefore, volumes change. Teaching
10 affiliations change. Contractual relationships change.
11 These are all inherent in the consequences of market
12 transactions.

13 So structural measures really aren't promising
14 for evaluating the impact of competition and
15 consolidation on quality except to the extent that they
16 help us understand the pathways. So if we can say that a
17 certain consolidation in a market, for example, reduced
18 quality of care -- or increased quality of care by
19 increasing the volume of patients going to high quality
20 providers, that may be a mediating variable.

21 So let's shift to outcome measures. Outcome
22 measures have several attractive features. They're
23 really what matter to patients, families, and
24 communities. They're intrinsically meaningful. They're
25 easy to understand. We all know what it means when a

1 patient dies or experiences a postoperative complication.

2 Outcomes reflect not just what was actually
3 done, but how well it was done. This is something that's
4 very difficult to measure directly. When we look at
5 process measurement, typically we're actually measuring
6 underuse or overuse. We're measuring medications that
7 should have been prescribed that weren't, tests that
8 should have been done that weren't; or procedures that
9 were inappropriately performed.

10 But in many cases, we're really more interested
11 in how well something was done. How well did the surgeon
12 really deal with the problems that came up in the
13 operating room and stop bleeding? Those features of how
14 well care is provided are reflected in outcomes even
15 though they're difficult to measure directly.

16 Finally, we have tools for ascertaining
17 outcomes using administrative data such as the HCUP data
18 offered by AHRQ.

19 Of course, there are a number of problems with
20 outcomes measurement. Morbidity measurement tends to be
21 particularly difficult because complications are often
22 documented and reported inconsistently.

23 Two major reasons for that: One is that coders
24 in hospitals can only code what physicians document, and
25 physicians are often reluctant to document their

1 complications clearly. The coding rules are very clear
2 that coders cannot make up diagnoses. They have to code
3 only what physicians diagnose.

4 So that requires, first, the physician
5 explicitly diagnose a complication, and second, that that
6 diagnosis be entered explicitly in the record. There's
7 also, of course, variability in coding practices across
8 hospitals which may also interfere with our ability to
9 ascertain morbidity.

10 Both mortality and morbidity measures may be
11 confounded by variation in transfer rates and length of
12 stay. So if, for example, you have market changes that
13 lead to higher transfer rates, if you don't track the
14 outcomes of those transfers, you may believe that
15 mortality is going down when in fact it's simply being
16 shifted to a different setting.

17 That was shown very nicely in Cleveland looking
18 at the impact of the Cleveland health quality choice
19 program on hospital mortality. They found that inpatient
20 mortality dropped for most of the conditions that were
21 analyzed, but it was largely explained by a reduction in
22 length of stay and shifting of mortality to post-hospital
23 settings.

24 Of course, severity of illness varies widely
25 across providers and administrative data capture little

1 of this variation. Many adverse outcomes are rare or
2 delayed. So if we're trying to look at the impact of
3 interventions in the market, it may be very difficult to
4 measure that impact if we rely on outcome measures. The
5 outcomes may appear years down the line, and our initial
6 analyses may be markedly underpowered.

7 Finally, there's a question that always lurks
8 in the back of our minds as to to what extent outcomes
9 are really under the control of providers. In many cases,
10 providers will argue justifiably that there's nothing
11 that they can do, nothing that they know how to do, to
12 prevent certain bad outcomes. And therefore, in many
13 cases, it's not really appropriate to look at bad
14 outcomes as a quality measure.

15 Now, where are we going with outcomes
16 measurement? A few ideas that may be relevant to this
17 field of competition. First of all, recent studies
18 suggest that certain complications may be better coded
19 and reported than others. So we may be able to focus on
20 certain types of complications that may be more
21 accurately measured, particularly complications that
22 require specific therapies or extend hospital stays. A
23 good example would be, for example, postoperative blood
24 clots, deep vein thromboses or pulmonary emboli.
25 Postoperative acute MIs.

1 Data linkages are now available in many data
2 sets which allow us to minimize confounding due to
3 variation in transfer rates and length of stay. Because
4 we now have the ability with many data sets to look at
5 post-hospital outcomes and to attribute those outcomes
6 back to the original hospital.

7 We can also capture readmissions. In some data
8 sets, such as the state data sets in New York and
9 California, we can not distinguish comorbidities that
10 were present at admission from complications that develop
11 after admission. This is useful both for ascertaining
12 the complications of care and for better adjusting for
13 differences in severity of illness at admission.

14 Finally, we've learned more about how to
15 measure comorbidity and how to include those measures in
16 risk adjustment models. Many of the earlier studies used
17 the Charlson comorbidity index. More recent work
18 suggests that the comorbidity developed by Elixhauser and
19 colleagues at AHRQ may be better in terms of capturing a
20 wider range of comorbidities and being more adaptable
21 across a broader range of conditions and procedures.

22 Finally, we're on the verge of seeing large-
23 scale patient satisfaction surveys. And I really
24 shouldn't use the word satisfaction here. The focus
25 really is more on patients' reports of the quality of

1 care that they receive. It's the patients' perspective
2 on process of care, and the hospital CAPS work is really
3 pushing the field forward.

4 Okay. What about process measures? Can we use
5 process measures to look at the impact of pro-competitive
6 or anticompetitive interventions? Process measures are
7 directly actionable by health care providers. They
8 represent opportunities for intervention. So they're
9 very attractive to health care providers.

10 They've generally been tested and validated in
11 randomized trials, so we know that they work. They
12 really help elucidate the pathways by which market forces
13 affect patient outcomes. So we want to understand not
14 just whether a certain market change has affected
15 outcomes, but how it's done so. This will allow policy-
16 makers to monitor the potential adverse effects in a more
17 timely manner.

18 The problem is that process measures are often
19 costly to collect. They require chart review or
20 participant interviews. Sometimes they require patient
21 surveys.

22 There are two general categories of process
23 measures. We talk about implicit measures, which are
24 based on some kind of a global rating by health care
25 providers. The typical question here is: Would you send

1 your mother to this hospital? So the idea is that we ask
2 for some kind of a global assessment.

3 The problem is that these measures often lack
4 reliability. If you're going to do this right, you need
5 to have at least five people or seven people, peer
6 reviewers, reviewing each medical record.

7 Also, if you don't blind the reviewers to the
8 outcome of the patient, which is a very tricky thing to
9 do, the reviewers tend to be biased. In other words, if
10 they know that the patient died, they're more likely to
11 find quality problems during the hospitalization. But in
12 many cases, blinding is infeasible.

13 Implicit process measures also aren't directly
14 actionable. Just because a provider says they wouldn't
15 send their mother to a hospital, well, so what? You
16 don't know what to do about that.

17 So explicit process measures are preferable in
18 many cases. But you have to again ask some key
19 questions. Are they really evidence-based? If you look
20 at the process measures that are out there, I've seen a
21 number of process measure sets that claim to be evidence-
22 based.

23 But when you look at the evidence on which
24 they're based, it's really not very strong evidence. It
25 really comes down to professional opinion or "consensus."

1 Some processes that seem important or that clinicians
2 think are important probably aren't, and many important
3 processes haven't yet been recognized.

4 So where are we going? What's the potential
5 that we have in this field? Well, electronic medical
6 record systems and linked pharmacy and laboratory claims
7 really have dramatically reduced the cost of collecting
8 process measures. So hopefully over the next few years
9 we'll be able to incorporate process measurement into
10 more studies while looking at the impact of competition.

11 We've also developed patient surveys, thanks to
12 the work of Cleary and the Picker Institute and others,
13 that really reliably measure patient-centered processes
14 of care. And hopefully these kinds of surveys can be
15 used to evaluate the impact of competition.

16 And finally, there's new and growing emphasis
17 on the use of randomized trials and systematic reviews to
18 make sure that when we say a process of care is good,
19 that we really know it's good.

20 So how do we put this all together? Well, we
21 want outcome measures, of course, that are relevant to
22 the objectives of care. So if a patient is terminally
23 ill, the primary objective may be comfort rather than
24 extending life. And therefore, mortality may not be an
25 appropriate outcome measure.

1 The outcome should be partially attributable,
2 both conceptually and empirically, to health care
3 organizations. We could actually look at that
4 empirically, look at hospital-level variability in
5 outcomes after adjusting for severity of illness.

6 We'd like to integrate outcome and process
7 measures because this will provide a more complete
8 assessment of quality and clarify these causal pathways.
9 We'd also like to see agreement. We'd like to see that
10 the hospitals that perform better on process also perform
11 better on outcomes. That makes us more confident in our
12 measurement of both phenomena.

13 If we don't find agreement, we get concerned.
14 We get concerned about the quality of our data. We get
15 concerned about whether we've adequately adjusted for
16 severity of illness; whether there are some strange
17 selection factors such as low risk patients getting
18 pulled off to go into ambulatory surgery centers, for
19 example; or perhaps our conceptual model is flawed and
20 these processes really don't affect outcomes.

21 The next series of slides I'm going to run
22 through very quickly. It's really just an example of the
23 measures that have been promulgated by different
24 organizations. JCAHO, of course, is responsible for
25 accrediting hospitals and other health care

1 organizations. These are its core measures for
2 evaluating inpatient care.

3 In blue are the measures that focus on process.
4 In white are measures that focus on outcomes. You can
5 see that the great majority of these measures for acute
6 MI and heart failure are process-oriented measures, with
7 the exception of AMI mortality. Similarly, for
8 pneumonia, these are all process measures. For
9 pregnancy, there's a mix.

10 I was actually on the panel that reviewed
11 surgical procedures and complications. We did suggest a
12 couple of core measures in this area for JCAHO, but they
13 weren't able to implement them for a variety of reasons.

14 The National Quality Forum is the new standard-
15 setting organization for health care quality measurement.
16 It's basically borrowed much of the work that JCAHO and
17 other organizations have done. But it's added a few
18 indicators of its own.

19 It did move forward with surgical procedure and
20 complication-related measures that JCAHO has not yet done
21 so. And it also developed some indicators related to
22 pediatric conditions, which are also focusing on process
23 of care.

24 In group 2, which is the next group that's
25 currently under review, you'll see that there are a

1 number of structural measures shown in yellow that have
2 been added to the measure set, as well as the outcome
3 measures in white.

4 CMS in its current statement of work for QIOs
5 again borrows from these JCAHO and NQF core measures.

6 The Leapfrog Group is really a coalition that's
7 spearheaded by large business organizations, and it's
8 really put an emphasis on structural measures and process
9 features closely related to those structural measures.
10 So you can see evidence-based hospital referral focusing
11 very much on volume for specific conditions and
12 procedures for which a volume/outcome association has
13 been demonstrated.

14 Finally, AHRQ has been active in the field of
15 quality measures. These are the inpatient quality
16 indicators, which include a set of both volume, process,
17 and outcome measures. Most recently, we've put forward a
18 set of patient safety indicators, which are really
19 measures of morbidity or complications. And these are
20 all outcome measures. So that gives you a sense of the
21 field.

22 Now, this just shows, if you believe that there
23 may be competition effects, it may be interesting to look
24 at rural hospitals because, of course, most of these
25 rural hospitals are operating in noncompetitive markets

1 or relatively noncompetitive markets.

2 And so when we looked -- this is a paper that
3 came out last month in Health Affairs -- we looked at the
4 rate of these patient safety indicators across different
5 categories of hospitals to see how rural hospitals
6 compared with urban teaching and non-teaching hospitals.

7 And you can see there's a fair amount of
8 heterogeneity. For some outcomes, such as anesthesia
9 complications and postoperative hip fractures, it appears
10 that rural hospitals do have higher rates. But for
11 others, it appears that rural hospitals are very similar
12 or perhaps even lower, as for iatrogenic pneumothorax.

13 Here again, you can see the rural hospitals are
14 sometimes lower for line infections, postoperative
15 respiratory failure. Of course, our ability to risk
16 adjust here is limited because we only used the
17 comorbidity measures and demographic measures that were
18 available from the administrative data. However, you can
19 see these data don't create a clear picture as to whether
20 these outcomes, in any case, are better at rural
21 hospitals or urban hospitals.

22 So a key research policy question is: Why are
23 some of these indicators less frequent at rural
24 hospitals, which operate in less competitive environments
25 and which are thought to offer poorer quality of care

1 based on prior studies?

2 It may be that there's worse documentation in
3 coding of complications. So we have to consider that our
4 measurement may be flawed. There may be issues related
5 to severity of illness, that the urban hospitals may be
6 seeing sicker patients. And, of course, there may be
7 true differences in quality of care.

8 So the next set of slides just briefly review
9 some of the studies that will be presented at this
10 conference. And Ryan Mutter really summarized this very
11 nicely. You can see that only two of the studies have
12 looked at process measures. The great majority of the
13 studies have focused on outcome measures and, of course,
14 mortality has been the predominant outcome measure, with
15 a few studies looking at readmission, particularly after
16 MI. More recently, a couple of studies have looked more
17 broadly at outcome measures that include morbidity based
18 on the AHRQ measures.

19 So finally, we'd like to kind of pull this
20 together with some concluding thoughts. What we'd like
21 to do is to find quality measures that may be especially
22 sensitive to the effects of decreasing competition and
23 consolidation. We'd like to find -- before patients
24 start dying right and left from the effects of decreased
25 competition, we'd like to find the canaries in the mine

1 to warn us that that's going to happen.

2 Perhaps we could study existing monopoly
3 markets to identify quality measures that may be
4 sensitive to these extreme effects. We'd also like to
5 select quality measures that are intrinsically
6 meaningful, as we discussed, avoiding surrogate outcomes.

7 And we'd like to avoid over-reliance on a
8 single data system. We have a number of different data
9 systems that are available to us, administrative data,
10 but also patient survey data, medical records monitoring
11 systems. In the future, we may have more active
12 reporting systems for medical errors, in particular.

13 We have a variety of hypotheses that we'd like
14 to test. Consolidation may decrease quality. It may
15 increase quality, depending on the specific mechanisms
16 here.

17 So if hospitals compete on quality, we may
18 expect to find the greatest effects for measures that are
19 observable to consumers, purchasers, or both. In other
20 words, more competitive markets should show the greatest
21 benefits in terms of the measures that are observable to
22 consumers and purchasers.

23 Publicly reporting outcomes therefore should
24 enhance the impact of competition. There should be an
25 interaction between public reporting and competitive

1 markets.

2 Patient-centered measures may be the most
3 promising in markets in which public reporting does not
4 occur because these measures may be more likely to be
5 disseminated by word of mouth.

6 On the other hand, if hospitals compete based
7 on the hotel services model, the amenities model, then we
8 may expect to find the greatest effects for measures that
9 capture observable amenities. An increasing competition
10 may unleash a medical arms race by hospitals that are
11 attempting to signal higher quality by offering services.

12 So offering bypass services, for example, may
13 be a way for a hospital to signal that it's a higher
14 quality hospital, and therefore make itself appear better
15 in a market in which hospitals compete based on hotel
16 services rather than based on true quality.

17 Finally, if our practice makes perfect
18 hypothesis is true, we have a completely different
19 framework for thinking. And here we expect the greatest
20 effects for the conditions and procedures in which volume
21 is an important predictor of mortality. Actually, we
22 would expect that if consolidation increases volume, that
23 it will lead to higher quality rather than lower quality.

24 So in the future studies, should apply both
25 process and outcome measures whenever possible. We

1 should apply patient-centered measures when possible,
2 based on the availability of data. And we now have in
3 California, for example, data from about 180 hospitals
4 that have participated in a statewide study of patients'
5 experiences with care.

6 This will expand, I think, to more states. And
7 these kinds of studies will really lead to better
8 understandings of which dimensions of care are most
9 susceptible to the effects of provider competition, and
10 therefore which measures we should track after mergers
11 and consolidations.

12 Thank you.

13 DR. BARTLETT: Thank you, Patrick, very much.

14 The third presentation in this segment of the
15 agenda, we're going to turn to Marty Gaynor, who will
16 talk with us about what we know and what we don't know
17 with respect to quality and competition.

18 DR. GAYNOR: Thank you. It's a pleasure to be
19 here. I appreciate it.

20 Let me tell you a little bit about what I'm
21 going to do. There's just an outline. There are roughly
22 two parts to my presentation. I first want to talk about
23 some general issues concerning competition and health
24 care markets, and then turn specifically to quality and
25 competition. Also, the overheads today are different,

1 somewhat different, than are in your packet. I'm
2 certainly happy to make those available to anybody who's
3 interested.

4 We can see evidence of the impact of lack of
5 competition on quality. If you take a look at the little
6 symbols to the left of the lettering here, those are not
7 the symbols that I put on my presentation, but Microsoft,
8 not facing any significant competition in the software
9 presentation market, doesn't bother to have to make the
10 things compatible across different computers. So we get
11 these symbols that are not what I put on.

12 In any event, let me talk a little bit first
13 about whether health care is different. At one level,
14 there's a trivial answer: Yes, it's different. It's not
15 like the competitive market that you saw in your econ I
16 textbook. But so what? Nothing is. Even pencils,
17 toothpaste, chewing gum, things like that, may be pretty
18 close, but they're certainly not exactly like what's in
19 the textbook market.

20 All markets are different. All brides are
21 beautiful. These are truisms. The markets for computer
22 operating systems and cement are very different. That
23 certainly implies different economic analyses. I don't
24 think we treat cement and operating systems markets in
25 the same way as economists, nor would antitrust analysis

1 proceed in the same way.

2 So the fact that health care markets are
3 different from other markets or different from perfectly
4 competitive markets at one level is not a surprise and
5 doesn't necessarily imply anything particularly different
6 from what economists or antitrust analysts would do.

7 It is nonetheless true, of course, that health
8 care has some specific characteristics we must take
9 account of in economics and antitrust. As I said, at one
10 level this is totally consistent with a standard
11 antitrust view of case-specific analysis.

12 Of course, quality assumes particular
13 prominence in health care. If we're talking about
14 cement, it may not be such a big deal -- although you can
15 alter the proportions of the mix in cement and produce
16 lousy cement, which gives you lousy roads such as we have
17 in western Pennsylvania because of lack of competition
18 over the contracts for road construction. But that's
19 another market, not the health care market.

20 So let me briefly say something, or at least
21 stress something, that I think is germane to the issue
22 surrounding quality and competition, an overall question
23 of whether markets can give us what we want in health
24 care. And I just want to address this from an antitrust
25 policy perspective.

1 At present, for better or for worse, depending
2 on one's political perspective, perhaps, the U.S. relies
3 on a market system for healthcare financing and delivery,
4 certainly for delivery and for financing for the most
5 part. And that appears unlikely to change any time soon.

6 I'm not sure that I'm the most astute in
7 hearing the drums beating along the Potomac, but my guess
8 is that we're unlikely to see command and control
9 policies emanating from Washington any time in the near
10 future.

11 The presumption of antitrust is that monopoly,
12 unregulated monopoly, is bad. Now, is this true in
13 health care markets? That is a question that we have to
14 ask. Well, again, relative to what?

15 Let me propose at least two alternatives for a
16 thought exercise. One is no regulation at all. And I'll
17 just contend flat-out that unchecked monopoly is clearly
18 bad, that it's possible that you could get a benevolent
19 hospital monopolist or physician cartel, but that it's
20 unlikely that across the board that unchecked monopoly
21 would do what's best for consumers and society as a
22 whole.

23 Another alternative is self-regulation. And
24 this is certainly a relevant alternative. It's certainly
25 an alternative that's proposed quite frequently in this

1 market: Let the market participants basically regulate
2 themselves.

3 Again, we have to ask ourselves how likely this
4 is to give us what we want. I'll contend it's very hard
5 for market participants to self-regulate in a global
6 fashion in the market in a way that promotes social
7 welfare. There are certainly areas of activity where
8 market participant self-regulation is the best way to go.
9 Technical standardization is a prominent area where
10 that's clearly a beneficial activity. Regulating the
11 market as a whole, allowing the participants to do that
12 again is not too hard to see it's like putting the fox in
13 charge of a chicken coop.

14 So if we put firms' goals in conflict with
15 those of society, which will win? I'll contend that the
16 experience of medicine is not particularly reassuring.
17 There are antitrust violations on the part of -- in
18 medicine that go back a long way, at least to the 1930s.
19 A Supreme Court case decided against the AMA. I think
20 that goes back to 1936. All the legal scholars can
21 correct me on this.

22 All the recent brouhaha about medical errors
23 and so forth again is not particularly reassuring. Self-
24 regulating efforts are important, but they're clearly, in
25 my mind, not sufficient. We do need market incentives.

1 And again, there are self-regulatory efforts that I think
2 are complimentary with markets.

3 So a conclusion, just to draw this section to a
4 close: I think antitrust enforcement is a critical
5 element of health policy. It preserves the functioning
6 of the markets on which the health care system is based
7 in the U.S. and it's relevant not just for private payors
8 but also for public payors, Medicare and Medicaid,
9 because they do rely on the functioning of these markets
10 as well. And I think you'll see, when I get to talking
11 about some of the evidence on competition and quality and
12 health care, how that plays out.

13 So let me now move more directly to quality and
14 competition. In health care, why is this important?
15 There's probably not even a need for this slide, but
16 certainly quality is one of the aspects that is
17 particularly prominent in health care.

18 It's been very, very extensively documented.
19 There's a lot of variation in quality. The consequences
20 of variation can matter a great deal. There is variation
21 in the quality of cement and toothpaste and things like
22 that, but a batch of bad toothpaste, assuming it's not
23 poisonous, doesn't have the negative implications for
24 consumers that really bad health care can have, again,
25 for certain kinds of health care.

1 Well, now, what do we know? Let me divide what
2 I want to say into what we know from economic theory
3 because, after all, it may work in practice, but as an
4 economist we really want to know is if it works in
5 theory, and then move on to empirical evidence.

6 And what I will contend is that theory tells us
7 something, but it doesn't provide a particularly strong
8 guide to what we should expect. And so empirical
9 evidence does become extremely important here.

10 I'm going to divide both my discussion of what
11 we know from theory and from empirical evidence into
12 situations where prices are fixed, where sellers of
13 health care are facing fixed prices such as selling to
14 Medicare, versus variable prices where prices can
15 fluctuate.

16 So in general, competition does not necessarily
17 have to result in lower prices and higher quality be a
18 good thing. Some people may be willing to accept lower
19 quality if price is low enough, and some people may be
20 willing to pay more if quality is high enough. So there
21 does not have to be necessarily a single price, a single
22 quality level, in the market. There could be variation,
23 and that can be a good thing.

24 With regard to fixed prices, here's what we
25 know. Competition, that is obviously over the non-price

1 aspects of the product, as Mark Pauly said, what we'll
2 call quality for want of a better word. Theory is very
3 clear here that competition will lead to more quality.
4 The level of quality will vary with the fixed price.
5 Higher prices will generally call forth higher levels of
6 quality.

7 However, welfare inferences are unclear.
8 Quality can be too high. In particular, if the price is
9 too high, quality will be too high. There would be an
10 excessively high level of quality that firms are
11 producing more quality than it's actually worth to
12 society. It could be too low, or it could be just right.

13 It's also very clear that monopoly will result
14 in insufficient quality. And there's a lot of literature
15 on this. Again, as Mark said, this goes back to the
16 regulated airline literature, for those of you who may
17 remember when airlines were regulated. My recollection
18 of that literature is one of the prominent papers was a
19 model of competition among airlines for consumers in
20 which the number of meals was the quality measure that
21 was used, and it actually seemed to work empirically. So
22 that is an amusing anecdote.

23 What about variable prices? Well, if firms
24 choose both price and quality, anything can happen. With
25 regard to social welfare, monopoly can under- or over-

1 produce quality. A competitive market, the same thing;
2 just about anything can happen.

3 Let me clarify a little bit. In most models,
4 it will be true that more competition will call forth
5 higher levels of quality and lower prices. That doesn't
6 happen universally, but in a lot of models that will
7 happen.

8 And it also is true that consumers will benefit
9 but society does not necessarily benefit. So we can get
10 excessive levels of quality production. For example,
11 that can happen in the sense of costing more than it's
12 worth, but if those costs are borne by producers in the
13 form of reduced profits, then that may be a reduction in
14 social welfare but not necessarily a reduction in
15 consumer well-being.

16 Anyway, the overall welfare results in this
17 literature are definitely, maybe, and that's final. So
18 in terms of trying to understand whether competition will
19 make society better off or worse off, it's really not
20 clear from this literature. You can find specific papers
21 that have specific findings, but they tend to be all over
22 the map.

23 Let me say a little something about monopsony.
24 With regard -- monopsony would be buyer market power.
25 Monopsony is clearly a bad thing, just like monopoly is.

1 Countervailing power is an issue that often comes up, the
2 notion that there's market power on one side of the
3 market and we might want to increase market power on the
4 other side of the market.

5 Most recently, it's been in the context of
6 physician groups asking for relaxation of antitrust
7 enforcement to allow them to bargain collectively with
8 health insurers, but it can go the other way as well.

9 It's possible for countervailing power to make
10 things better. It can also make things worse. Again,
11 there are results on both sides in this theory. While I
12 wouldn't say this is a specific result from theory, if
13 bargaining between buyers and sellers is only over price
14 and quantity is set freely in the market, it seems
15 unlikely that countervailing power will make matters
16 better.

17 If bargaining is over both price and quantity,
18 then it's more likely that there will be welfare
19 improvement. But even that's not a guarantee. So the
20 circumstances under which countervailing power will
21 improve matters seem to be actually fairly narrow, but
22 there are some circumstances that theory says under which
23 that would be the case.

24 Impacts on quality: I don't know of any
25 theoretical papers that explicitly look at impacts of

1 buyer power on quality. Intuitively we'd expect
2 monopsony to make things worse, but there are no such
3 results, to my knowledge.

4 Let me turn to empirical evidence. I said --
5 because that's particularly important here because of the
6 fuzziness of theory with regard to welfare predictions.
7 So the evidence that I'm aware of at this point comes
8 from econometrics, statistical studies using secondary
9 data.

10 Actually, the initial version of these
11 slides -- I thought I had a different version. The first
12 version said not a lot of evidence at this point, but
13 actually the more I read, the more the papers piled up.
14 And there a bunch more papers that we'll hear today.

15 I'd actually say that there's a fair amount of
16 evidence at this point. It's all still relatively new,
17 stuff that's been produced in the past few years. But
18 actually, there are quite a few studies out there.

19 Now, entirely on hospitals, that's not
20 100 percent accurate. But for the most part on
21 hospitals, again, I'm going to divide the studies into
22 those of markets where prices are fixed and studies where
23 prices are variable because of the way they correspond to
24 theory and because of the way the studies divide up. And
25 because it's a little easier to think about those studies

1 in a market where prices are fixed, let's start there.

2 So the first study, in my opinion the best
3 study in this literature thus far, is by Dan Kessler,
4 who's here today, and Mark McClellan. And I think this
5 study sets the gold standard for studies in this area.
6 It's a very careful study, very competent study. And I
7 think the results are very, very solid.

8 So what did Dan and Mark do? They looked at
9 Medicare enrollees with AMI, so it's a fixed price
10 market. They looked at all non-rural Medicare
11 beneficiaries with heart attacks in this ten-year period.
12 And they looked at mortality as an outcome.

13 They found that patients in the most
14 concentrated markets had significantly higher mortality
15 than those in the least concentrated markets, a pretty
16 big difference. They also found that the expenses to
17 Medicare were lower in more concentrated markets before
18 1991 and after than -- and higher after 1991.

19 So this study, I think, establishes pretty
20 clearly a relationship between how concentrated the
21 market is and heart attack outcomes for Medicare
22 beneficiaries. There's no price variation to the
23 Medicare beneficiaries, so they have no reason to go to
24 one hospital versus another based on price. There is
25 some question about exactly what the nature of

1 competition is for heart attacks, but certainly this
2 establishes this relationship in a very strong and
3 believable way.

4 Now, there are a number of other studies, and
5 they certainly do not all point in the same direction. A
6 study by Bob Town, who's also here, and Gautam
7 Gowrisankaran also looked at Medicare enrollees with AMI
8 and looked at pneumonia. They looked at mortality risk
9 adjusted in Los Angeles County, and they found that it
10 was significantly lower in more concentrated parts of Los
11 Angeles County for AMI pneumonia for the years that I
12 indicate here.

13 So this seems to go the other way, which
14 provides some different results. There's a study by Phil
15 Held and Mark Pauly which goes back a ways that looked at
16 dialysis facilities and found that fewer dialysis
17 machines per patient were provided in more concentrated
18 markets. Presumably more dialysis machines per patient
19 is a good thing.

20 There's the medical arms race literature, which
21 goes back to the mid-80s or prior to the mid-80s. And
22 papers in that literature look at a number of dimensions
23 of -- trying to indicate non-price competition --
24 hospital cost, length of stay, service offerings, excess
25 capacity. And these studies pretty consistently find

1 these things are higher in less concentrated markets.
2 This appears to be over by the early '90s.

3 Now, what about evidence in markets where
4 prices are variable? A study that I've done with Jean
5 Abraham and Bill Vogt, we looked at the effect of market
6 structure and number of hospitals on hospital profits and
7 quantity in the market. We looked at isolated markets in
8 the U.S. in 1990 so that the markets are clearly self-
9 contained.

10 And what we find is that quantity increases
11 with the number of hospitals in the market and profits
12 decrease. Why? Well, one possible explanation is that
13 quality and/or price changed in a way that made people
14 want to consume more, not less. Hence, they must be
15 better off.

16 The study by Hamilton and Ho looked at hospital
17 mergers in California in the mid-1990s. They did not
18 find any detectable impact on heart attack or stroke
19 inpatient mortality. They did find that some mergers
20 increased readmission rates for heart attack patients,
21 and early discharge of newborns.

22 A recent study by Huckman looked at, again,
23 heart conditions in New York State over the 1990s. I
24 must confess I'm not entirely clear I understand this
25 study, but what Huckman found is that risk adjusted

1 mortality was lower as a result of a hospital acquisition
2 where the acquiring hospital provided the service, PTCA
3 or CABG, but the target hospital did not. There were 28
4 such acquisitions. But for those particular types of
5 acquisitions, the impact of those acquisitions was that
6 risk mortality was lower as a result of that.

7 A study by Volk and Waldvogel, which I think
8 was mentioned earlier, compares New Jersey and New York
9 in the early to mid '90s. What is going on in this study
10 is that New Jersey deregulated hospital rates during this
11 time period and New York did not change. So they're
12 comparing the change in New Jersey to the change in New
13 York.

14 They find that risk adjusted inpatient
15 mortality increased in New Jersey post-deregulation
16 relative to New York. So if we believe that the rate
17 deregulation is associated with greater competition or
18 price competition, then associated with that is a
19 decrease in quality or a decrease in positive outcomes.

20 Gowrisankaran and Town, same study but looking
21 at HMO enrollees -- I'm categorizing this here under
22 variable prices -- with AMI and pneumonia found that risk
23 adjusted mortality was significantly lower in more
24 concentrated parts of Los Angeles County. So they find
25 different results for Medicare enrollees who face fixed

1 prices and HMO enrollees who face variable prices. Of
2 course, those are not the only differences between those
3 two populations.

4 A recent study by Sohn and Rathouz, looking at
5 California hospitals, again finding mortality lower for
6 PTCA patients in less concentrated markets.

7 And let me just say something. One last class
8 of studies, volume/outcome, there has been a positive
9 relationship between volume and outcome, as has been
10 observed, for a very, very long time. And intuitively,
11 it makes a lot of sense.

12 It's pretty hard to identify a causal
13 relationship in secondary data because, of course,
14 volumes could be causing outcomes, or it could go the
15 other way around. And probably both are occurring to
16 some degree at the same time.

17 A recent study by Ho looking at PTCA in
18 California, in terms of looking at outcomes, didn't
19 really find a particularly large volume/outcome
20 relationship. There are a number of other studies, and
21 we'll hear from Bob Town later today on a recent study
22 that he's done.

23 But this area is important, and it's
24 particularly important for antitrust analyses, in that
25 if, say, we're considering a hospital merger and that

1 merger would increase volume at the merged entity post-
2 merger, then if there are improvements in outcome
3 associated with that, that that's something that
4 certainly should be considered.

5 So what do we know? Well, again, perhaps this
6 is a little too strong, the evidence only for empirical
7 for hospital markets. But that's where most of the
8 evidence is at this point. There's a lot of evidence on
9 heart attacks and not so much evidence on other kinds of
10 conditions.

11 The empirical evidence is mixed, but again my
12 read is the strongest evidence thus far is that quality
13 is higher in less concentrated hospital markets. But I
14 do want to be clear there are conflicting results across
15 studies, and perhaps that shouldn't be too surprising.
16 We're still early on in this effort, and things are
17 evolving. So that's not perhaps a particular surprise.

18 Well, what don't we know? There's lots of
19 stuff we don't know. We don't really know how complaint
20 affects both quality and price. There are lots of
21 studies that look at price, and there are a growing
22 number of studies that look at quality. But there aren't
23 studies thus far that look at both quality and price.

24 We don't have models that really lay out in a
25 precise way the nature of quality competition. So, for

1 example, do we think that hospitals actually compete for
2 heart attack patients and heart attack patients choose
3 hospitals, or do we think more that hospitals compete for
4 other kinds of patients?

5 There is some overall level of quality it's
6 hard to vary quality across specific conditions. And so
7 heart attack quality or heart attack outcomes are an
8 indicator of overall quality levels, management levels,
9 things like that in the hospital.

10 And though either of those interpretations are
11 possible -- but they do make a difference. So I think
12 one area to work on is thinking about, more precisely,
13 exactly the nature of competition in these markets and
14 trying to develop models of quality competition.

15 There are other aspects of quality, as Patrick
16 so ably talked about. We don't at present have much
17 evidence on other markets, doctors, and relatively little
18 on insurers. Quality is certainly an important aspect of
19 performance in healthcare markets. It should absolutely
20 be considered in economic and antitrust analyses of
21 competition.

22 The presumption in antitrust is that monopoly
23 is bad and competition is good. My read of the
24 scientific evidence at this point is not sufficient to
25 reverse that presumption with regard to quality, but it's

1 a very important area for further research, and in
2 antitrust analyses, quality should certainly be
3 considered in assessing competitive impacts.

4 Thank you.

5 DR. BARTLETT: Join me in thanking Marty and
6 Patrick and Mark.

7 (Applause.)

8 DR. BARTLETT: I'm just going to open up the
9 floor for purpose that at this time in the agenda --

10 VOICE: Use the microphone. Larry --

11 DR. BARTLETT: -- it was really put out on the
12 table what we know, to talk about where we are in terms
13 of quality and competition.

14 So what I'd like to is offer anybody around the
15 table the opportunity to comment, either to add to some
16 of the remarks that were made, to emphasize work that may
17 not have been mentioned. Warren, we'll start with you.

18 DR. GREENBERG: Thank you very much, and thank
19 you for the kind comments at the beginning.

20 Obviously, Patrick Romano did a terrific job
21 talking about the quality indicators of a very difficult
22 product to measure. However, I would like to make a
23 statement, and then perhaps will follow with a question
24 that we'll answer throughout the day, and also maybe even
25 refer to Mark Pauly's paper as well.

1 That is, looking back to George Stigler's
2 suggestion of 1961 in his Economics of Information, why
3 don't we have the department store approach to quality in
4 health care? George Stigler is the Nobel laureate in
5 economics some years ago from the University of Chicago.

6 You go in to buy jewelry. You're not keen on
7 the quality of the gold. You're not keen on the quality
8 of the particular aspects of the jewelry. If you go to
9 K-Mart, you know what kind of jewelry you're going to
10 get. If you're going to go to Bloomingdale's or Lord &
11 Taylor, you know what kind of jewelry you're going to
12 get. Same thing with men's apparel. Same thing with
13 women's apparel.

14 What's happened to brand names, trademarks, for
15 difficult, complex items? Why don't we have this in
16 health care? We have it for universities. We know such
17 things as Ivy League universities, University of
18 Pennsylvania, University of Michigan, other such
19 universities, a whole complex of professors and courses
20 and offerings.

21 And yet we have brand names. Why don't we have
22 such things in health care? Yes, we have some university
23 hospitals, and yes, there's a Mass General Hospital out
24 there. But why not more of these in health care?

25 We even have it among ourselves. I like to

1 play with Mark Pauly. Why was Mark Pauly selected to
2 lead off this conference? Because of his brand name.
3 Because he's a distinguished contributor to micro
4 economics and health economics all these years. I didn't
5 have to look at every single one of his articles. But he
6 comes around with brand names, as do most of the people
7 in this paper. Why not brand names in healthcare to give
8 us an idea of quality from K-Mart to Nordstrom's?

9 DR. BARTLETT: I think Arnie wants to take that
10 one on.

11 DR. MILSTEIN: I'll respond to it, and then I
12 have another point I'd like to put out on the table.

13 First, one of the interesting phenomena in
14 America over the last 20 years is we have occasionally
15 inched toward scientifically valid quality reporting, as
16 it had suggested that some of the brand names don't stand
17 up. And I would cite, for example, Medicare putting its
18 toe in the water first with risk adjusted outcomes for
19 organ transplants.

20 You know, some of the top brand names in the
21 country didn't do too well, and many of them -- their
22 public comment acknowledged that they had some work to do
23 and that they, in essence, didn't deserve their brand
24 name with respect to some types of organ transplantation.

25 My primary challenge as a -- I'll call myself a

1 quality change agent for purchasers and consumer
2 organizations is, to invoke another metaphor, somewhat
3 lower on the Maslow scale than lack of knowledge about
4 the effects of competition on quality.

5 Health care quality is going to require a lot
6 more provider cooperation if we're going to measure it
7 and compare it validly. So in addition to research on
8 the effects of competition on quality, I need research on
9 the effects of competition on provider willingness to
10 collect and report information needed to measure and
11 compare provider quality adequately.

12 DR. BARTLETT: We'll keep, Warren, your file,
13 your question, open if people would like to swing back to
14 it. But I'd be interested in other comments in terms of
15 where we are in terms of understanding competition and
16 quality and those relationships.

17 Other takers? Yes, go ahead.

18 DR. GAYNOR: Just a brief comment. Mark
19 presented a table with overall change in the Herfindahl
20 Index, and actually one thing I didn't mention in my
21 paper, that thus far most of the paper, empirical
22 evidence on quality and competition has used
23 concentration measures, the Herfindahl Index. And again,
24 I think that's totally appropriate for these studies.

25 If we look at studies of price competition in a

1 hospital market, there are sort of some second generation
2 studies that show that hospitals have quite a bit of
3 local market power, even in relatively unconcentrated
4 markets, with regard to pricing power.

5 And so one thing to suggest is that the
6 Herfindahl Index is suggestive but certainly not
7 dispositive, and one thing we might want to think about
8 for second generation studies in this area are studies
9 that take off on the results of these first generation
10 studies that use concentration indices but try to go
11 beyond them and see whether what we've seen with the
12 degree of market power in pricing is also reflected in
13 quality.

14 DR. BARTLETT: Thank you, Marty. Others? Yes,
15 Larry? And I'm going to ask everybody, if you would,
16 this is being transcribed. So if you'd use the mikes,
17 please.

18 DR. CASALINO: Yes. I'd just like to comment
19 on the brand name question. I think, leaving aside the
20 question about whether brand name hospitals are in fact
21 better than non-brand name hospitals, which Arnie just
22 asked, I think actually if you go around to local
23 markets, as we do in the community tracking study, for
24 example, there are in every market very clear brand name
25 hospitals that may or may not be better, but everybody

1 thinks they are. There's usually one or two.

2 So I would argue that there are brand names on
3 a metropolitan area level in hospital care, but not for
4 health plans and not very much for physicians; maybe in
5 some places a group or two.

6 So one thing to think about that's interesting,
7 I think, is why there are -- and I think the answer is
8 maybe fairly obvious -- why hospitals can develop brand
9 names. Health plans, for the most part, haven't been
10 able to do that, and not physicians either, for the most
11 part.

12 DR. BARTLETT: Other comments? And again, this
13 morning this is what we'd like to do is really say this
14 is where we are in terms of our understanding of
15 competition and quality. We'll talk about some new
16 research in upcoming panels, and then we'll talk about
17 the gaps and where we need to go later in the afternoon.

18 But any comments in terms of what you've heard?
19 Anything that you'd like to emphasize? Were there
20 exceptions you'd like to take to some of the
21 interpretations of the literature? Anything at all?
22 Mark?

23 DR. PAULY: Just one comment on brand names.
24 This isn't an answer, but I think it's a difference
25 between health care and department stores.

1 And that is, there is no hospital I know of
2 that would want to bill itself as the K-Mart or Sears of
3 health care. The statement -- I mean, I have a Philly-
4 style advertising slogan for that hospital, which is,
5 "We're not that great, but we sure are cheap. Do you
6 have a problem with that?"

7 But I think the dilemma in part is
8 philosophical. When it comes to health, nobody wants to
9 say, we're willing to give up on quality to save money,
10 although all of the time in every way all of us do do
11 things that indicate we are willing to do that but we
12 don't want to say it.

13 And then it also gets to the point that Marty
14 raised, that we don't know what's the socially optimal
15 level anyway. So we're not sure whether it would be a
16 good or bad thing to have a hospital K-Mart chain.

17 But I think part of it is that the willingness
18 to speak in polite company about trading off cost and
19 quality in health care is low, and maybe it should be.
20 But that's at least a difference, I think. Whether it's
21 a legitimate difference or not, I don't know, but it is a
22 difference.

23 DR. BARTLETT: Gary, did you want to hop in?
24 You seem like you were leaning toward the mike.

25 DR. YOUNG: No. I thought that was very much

1 on point. I think, right, we don't have the kind of
2 quality scheme that maybe Warren Greenberg was -- the
3 range of quality that's being put out. We don't have the
4 K-Mart's. I think we do have brand names.

5 I think the closest thing that hospitals have
6 when you talk about a K-Mart is that they avoid the --
7 you know, the tertiary care, high complex types of
8 procedures. They focus more on routine kinds of
9 procedures. And that's the closest thing that we have
10 really to what might be described as a K-Mart.

11 And the brand names are the hospitals that --
12 you know, the big university hospitals, the Mass
13 Generals, which is in my back yard, which are known for
14 doing, you know, very, very high complex types of
15 procedures. You know, the chief medical officer of Mass
16 General once said to me, "You know, by the time people
17 are brought into our hospital, they're already dead and
18 we bring them back to life." And it's that kind of, you
19 know, an orientation. They take on the toughest cases.

20 But I do think that represents somewhat of a
21 different dimension of quality from the department store
22 orientation where you talk about jewelry or something
23 like that.

24 DR. BARTLETT: Other thoughts? Yes. We'll go
25 to Patrick, and Bill, I'll come your way right after.

1 DR. ROMANO: Yes. I think another issue that
2 we have to think about is the information that's
3 available in the market, or the lack thereof. The
4 department store example is an interesting one.

5 I mean, the fact is that when you buy jewelry,
6 you can easily go to a jewelry store, and then you can
7 take what you bought and take it to an appraiser and have
8 it assessed. And similarly, when you buy men's apparel,
9 you know, you can take it home and you can look at it and
10 you can see what the quality of the stitching is and the
11 quality of thread and so forth.

12 I think we all appreciate it's more difficult
13 to do that with health care. And so in markets where
14 information about quality of care is not readily
15 available, consumers may easily think that they're
16 getting Cadillac care. They think they're getting the
17 best quality care because that's what hospitals are
18 trying to convince them of. But they really may be
19 getting poor care when you look at professional norms and
20 standards and outcomes.

21 DR. BARTLETT: So you're taking this back, I
22 think, appropriately to a measurement issue in terms of
23 some type of measures that are valid and understandable
24 from the consumer perspective?

25 DR. ROMANO: Right. And as Arnie said, the

1 issues about, you know, what information is out there,
2 it's very interesting what's happened in certain markets.
3 And the Cleveland example is a classic one where, you
4 know, I think -- I don't know if anyone is here from
5 Cleveland, but, I mean, basically the health care quality
6 reporting initiative in that market disappeared largely
7 because of the market power of one hospital organization
8 that was able to say, we think we're number one but we're
9 not showing up that way on the ratings. And so we're not
10 going to play this game any more. And so that's -- you
11 know, that can be what happens when there's lack of
12 effective competition.

13 DR. BARTLETT: Bill?

14 DR. SAGE: I'd just like to flag a different
15 issue that Mark Pauly's comments made me think about.
16 I'm sort of used to being able pretty cleanly to divide
17 price, quality, and output. And things that Mark was
18 saying made me actually think that the line between
19 quality and output is kind of hazy in health care in ways
20 that the line between price and output isn't. And this
21 all had to do with nonprofit hospitals and other
22 nonprofit providers.

23 Mark talked about lack of insurance as being an
24 output rather than a quality problem, but then we talked
25 about nonprofits as being perhaps quality maximizers

1 rather than price maximizers.

2 And while I was trying to reconstruct my exact
3 thinking process for you, the bottom line that I come to
4 here is that when we do look at a nonprofit hospital, in
5 some ways everyone really wants health care providers to
6 have good intentions and their intentions matter to us.
7 And a lot of the manifestations of those intentions are
8 in terms of charity care and access to those who can't
9 pay.

10 And it occurs to me that it's going to be very
11 hard to model the line between what's a quality effect
12 with nonprofits and what's an output effect, especially
13 where charity care and the uninsured are concerned.

14 DR. BARTLETT: Yes. Jon?

15 DR. CHRISTIANSON: Yes. This is just a comment
16 to put on the research agenda, I guess. I think we're
17 seeing in some communities a fairly interesting
18 experiment with the development of specialty hospitals
19 entering the market. And I think we need to add that to
20 our research agenda.

21 What effect is that going to have on quality of
22 outcomes? Are there differences in the quantity of
23 outcomes in those facilities and the existing facilities?
24 What happens overall to the community in terms of quality
25 of care when that happens? And kind of teasing out the

1 sort of effect of volume versus specialization, and
2 trying to figure out what would possibly be driving
3 quality changes.

4 DR. BARTLETT: Other comments? Other folks who
5 want to hop into this discussion? Michael Hagen? If you
6 would, since we're transcribing this, come up to the
7 mike, if you would, please.

8 MR. HAGEN: Yes. You had brought back the
9 issue on measurement on the outcomes side, the quality
10 side. I'm interested in terms of the review of the
11 literature that's been done whether there are similar
12 issues on the competition side in measuring. The
13 workhorses that we used in this kind of -- these kinds of
14 studies over time, do they stand up to the need? Is
15 there a complexity in there that we need to deal with?
16 And so comments from Marty or Mark on that.

17 DR. BARTLETT: Peter, do you want to hop in on
18 that? Then, Marty, I'll come to you right after.

19 DR. HAMMER: Yes. I would just say that's a
20 real outstanding issue to be raising, that we're going to
21 be spending a lot of time talking about how complex
22 quality is. But thinking about what is competition is
23 just as hard of a question. What's the appropriate
24 measure of output, as Bill is raising, very hard.

25 One of the things here is what the unit of

1 production is. What is the supply function? What do we
2 mean by a firm? One interesting thing: We've already
3 accepted the division in the structure of the agenda that
4 physicians are separate from hospitals, that we're going
5 to talk about hospital competition and we're going to
6 talk about physician competition.

7 In fact, one of the most important things,
8 really, is how do we redefine new markets, new products,
9 new commodities, and new forms of competition, and what
10 implication will those new forms then have on quality, is
11 a very, very important part of the dimension.

12 DR. BARTLETT: Thank you. Marty, did you want
13 to hop in on that issue?

14 DR. GAYNOR: Sure. Well, I think that's an
15 important issue. Again, I think the studies we have at
16 this point are first generation studies and have worked
17 with existing measures. And I think that's the right
18 thing to do and the obvious thing to do.

19 As we proceed forward, we want to think more
20 carefully, perhaps, about issues of product market
21 definition and geographic market definition, and again
22 perhaps not rely as heavily on workhorse measures of
23 concentration, which are not measures of competition,
24 after all. They're just a measure of the structure of
25 the market.

1 We're trying to draw an inference about the
2 relationship between market structure and outcomes or
3 quality here through some mediation of behavior,
4 competitive conduct, which we can't actually see. There
5 are a number of different ways to get at that, and I
6 expect we'll see a lot of activity in this area building
7 upon these studies.

8 But I think Mike's dead right. It's not just
9 working on dealing with the quality measurement, which
10 is, of course, extremely important, but also thinking
11 about quality in a careful way. And I think for that we
12 need to go to first principles and think about exactly
13 what we mean by competition for specific products and try
14 and write down models that we can ultimately bring to the
15 table and estimate.

16 DR. BARTLETT: Mark?

17 DR. PAULY: My guess is that playing with more
18 sophisticated measures of the numbers or division of the
19 market between existing sellers probably won't pay off
20 that much. But one thing that might is the potential
21 entry idea. That would be nice to be able to formulate
22 and incorporate.

23 And the other, as Marty mentioned, is what
24 exactly is the market here. I've heard some speculation
25 that, well, the reason that CABGs make money is because

1 hospitals price angioplasty as a loss leader. So what's
2 the price? Well, it all depends on which product you're
3 looking at. And when products are related, as they often
4 are in this area, you kind of want to look at the package
5 price rather than the individual price.

6 DR. BARTLETT: Mark, let me push you a little
7 bit more. Talk a little bit more about the potential
8 entry idea.

9 DR. PAULY: Well, particularly for -- in some
10 ways it's related to the point Jon made. Particularly
11 for specialized hospital services, at any point in time
12 you can see how many hospitals are furnishing those
13 services.

14 But we know that more hospitals get into the
15 act and hospitals withdraw. And so some measure of sort
16 of how thick or thin that margin of entry is around where
17 we currently are might give a better idea of what the
18 true state of competition is.

19 DR. BARTLETT: Others? Yes, Warren, then
20 Marty.

21 DR. GREENBERG: When I was talking about
22 department store, I was mostly focusing, as you suggest,
23 on health plans. We don't have brand names in health
24 plans. And I don't see a K-Mart health plan, but I also
25 don't see a Lexus health plan, either. I don't know one

1 plan from another.

2 And I think one of the objectives today, or at
3 least one of my objectives when I have a chance to talk
4 again as a commenter, is to ask what are the incentives
5 of the health plans to develop trademarks, to develop a
6 department store name. And I might say right now they're
7 kind of weak at this point.

8 And so among the health plans is where I see
9 the department store approach as the name of a
10 university, as the name of a Bloomingdale's department
11 store.

12 DR. BARTLETT: And I'm assuming, given the
13 geographic spread of plans -- I don't mean to take away
14 from the comments that you'll make later on -- the issue
15 there would be that you would expect some similarity
16 across those geographic markets, an Aetna being an Aetna
17 on the west coast and on the east coast as well.

18 DR. GREENBERG: They would build up that name
19 if they wanted to.

20 DR. BARTLETT: Yes. Marty, did you want to hop
21 back in?

22 DR. GAYNOR: Yes. Just briefly, to pick up on
23 one aspect of Bill's point. And again, I think one
24 important direction to go with studies of the area is to
25 look at the behavior of not-for-profit versus for-profit

1 versus public hospitals with regard to quality.

2 There's been a fair amount of work on this with
3 regard to pricing and the exercise of market power in
4 pricing, which has turned up pretty much no difference
5 between for-profits and not-for-profits. But at this
6 juncture, I don't think we know very much about where
7 there's a difference between for-profits and not-for-
8 profits in the exercise of market power and quality.

9 There is some evidence on quality levels and
10 differences between for-profits and not-for-profits, but
11 I don't think specifically with regard to the exercise of
12 market power and quality.

13 DR. BARTLETT: I want to use this time -- I
14 know we're going to talk about a future research agenda
15 this afternoon. But I think, again, these series of
16 presentation, this discussion, sets a good foundation for
17 thinking about that. We'll break in a couple minutes.

18 But I just want to perhaps tap into some of the
19 thinking around the room from folks we haven't heard and
20 ask you -- and Gloria, I'll give you a heads up, I'm
21 coming your way first -- ask you to perhaps pull out the
22 one thing or two that you heard from this morning's
23 presentations, from reviewing the papers, from your own
24 work, that you would flag in terms of our current
25 understanding, the current work being done with respect

1 to competition and quality, that you'd want to flag as
2 being a salient point that may be something that we hang
3 a future agenda on or that we need to address in terms of
4 future work.

5 Any thoughts?

6 DR. BAZZOLI: Well, I think, especially when
7 I'm thinking about studies that use Herfindahl indices to
8 measure concentration or competition, to me there's this
9 jump, this leap of faith, between mergers and what
10 happens through a merger, consolidation of volume and
11 things like that, to what we see in a concentrated versus
12 unconcentrated market.

13 And I think there's more -- some need to think
14 about what actually happens when hospitals merge, when we
15 see markets concentrate, what actually happens in the
16 flow of volume across hospitals. Do we see the
17 concentration of services in one place versus another
18 when there's a merger? That kind of thing.

19 So I think there's a need to look at that
20 intermediate step first to understand what happens, and
21 then think about the quality implications.

22 DR. BARTLETT: Bill or Jeff? I'll just pick up
23 on some folks we haven't heard from on this side.
24 Anything that you'd like to throw into the hopper?

25 DR. ENCINOSA: Especially from Marty's

1 presentation, it's clear that we don't have any guidance
2 on how to do a welfare analysis. For example, even if
3 concentration rates increase, we can't even tell if costs
4 will increase or if costs will decrease. That's a big
5 chunk that's missing. We can't tell -- we can't really
6 compare price and quality tradeoffs if we don't have a
7 good foundation for some type of welfare analysis.

8 DR. BARTLETT: Jeffrey?

9 M. GEPPERT: Yes. I guess just to emphasize
10 that as well, that, you know, a lot of the, you know,
11 using volume measures as sort of general aggregate
12 measures of quality could have some very sort of
13 unintended consequences. Hospitals vary in terms of the
14 quality they provide depending on what dimension you're
15 looking at, what kinds of diseases you're looking at. So
16 I think there might be some very unintended welfare
17 consequences to some of these.

18 DR. BARTLETT: Brent, anything you'd like to
19 throw into the hopper?

20 DR. JAMES: Given the ask, I have four or five
21 things.

22 DR. BARTLETT: Go right ahead.

23 DR. JAMES: First is, as a practical experience
24 level, very often patients and physicians define quality
25 as spare no expense. It's a very common definition of

1 quality in actual practice.

2 Second idea: Best estimates we have, which are
3 quite poor, is there's a massive amount of waste in the
4 health care delivery system, estimated to be 25 to 40
5 percent of all health care delivery costs. It certainly
6 implies that you can increase medical and service
7 outcomes while decreasing costs on a broad scale.

8 And as a system, we've been unable to get after
9 that waste. And I'm sometimes -- I don't know --
10 disappointed that particularly the macroeconomics of
11 health care don't talk about that or examine that because
12 I think it has a potentially very important role.

13 We've talked a lot about competition,
14 especially price competition. And as a non-expert, I
15 believe that that depends upon volume. The reason that
16 you'd engage in price competition was a hope to increase
17 your patient volume or your treatment volume.

18 But an important thing to recognize is in
19 health care, very often volume is mediated. And
20 something like Medicare, it's mediated primarily by
21 physicians. And they work on a completely different set
22 of incentives, price largely being immaterial.

23 And I think you have to look at that level
24 where the actual decisions are made. When you come into
25 commercial insurers, of course, there's a different set

1 of mediators. And it muddies the water a little bit, but
2 I think they have to be considered at some level.

3 Just another comment: We were looking at --
4 Dr. Romano reviewed some of the PSI data from AHRQ.
5 There's good reason to believe that most of those
6 measures are substantially and systematically biased.
7 Even in the good hospitals, they grossly underestimate
8 injury rates, for example, quality failure rates.

9 And then the question becomes: Is that bias
10 stable over time and across different groups? And I
11 don't think that we know that very well yet. And that's
12 a real measurement challenge that we have. It at least
13 implies the need for independent clinical data audit
14 before we can make statements about those sorts of
15 measures, before we have a reliable basis to even talk.
16 So just a few ideas.

17 DR. BARTLETT: Good. Thank you. And I hope
18 we'll come back. I think you had -- somebody else had
19 also mentioned this notion of not looking at, say,
20 physicians and hospitals separately. But I think you
21 talked about the interaction between those two provider
22 types in terms of competition of behavior. Hopefully
23 we'll come back to that.

24 Dan, anything you'd like to add?

25 DR. KESSLER: Sure. I'd just like to -- this

1 is working. Good.

2 DR. BARTLETT: Just pull it a little closer to
3 you, please. Thanks.

4 DR. KESSLER: I'd just like to highlight a
5 couple things that Mark and Marty said that I found very
6 interesting. One thing that Marty said was that where we
7 should go next with this research is to try to start to
8 identify some of the mechanisms through which competition
9 affects quality.

10 And it's easy to say that it does if we have
11 these very coarse measures like Herfindahls. And as
12 Marty pointed out, they don't really capture a lot of
13 what economic theory suggests the way that competition
14 affects quality. Understanding better exactly how it's
15 working, I think, could be an important area to do some
16 more work.

17 One of the things that Mark said that I also
18 found very interesting was that our focus on price in
19 understanding how competition works has also been
20 misplaced. And I think that's part of what this day is
21 about, is that price, given the complementarity of so
22 many of the products that we get when we get what we
23 think of as medical care, it's very hard to know what
24 that means.

25 Because really, the true price of an episode of

1 care is a combination of some prices and some quantities
2 and some qualities and lots of different things. And so
3 I think that's another reason why we would focus the day
4 as we're doing.

5 DR. BARTLETT: Good. Peggy? David? Anything
6 you'd like to hop in? Feel free.

7 DR. HYMAN: Just a couple of thoughts. One is,
8 I think we talked a little bit about incentives under
9 competition and a little bit about -- not enough about
10 how information influences incentives and how peoples'
11 behavior is influenced by the availability of information
12 and the form that it takes and who it's targeted at.

13 And just to be very concrete, if you think the
14 information has a -- if you're shooting to have a supply
15 side effect, you're going to structure things very
16 differently than if you're looking at a demand side
17 effect. And the sort of overlay on that, different types
18 of health care. You may have very different impacts. So
19 supply-sensitive care may play out very differently than
20 preference-sensitive care, to use the Wenberg
21 formulation.

22 The last point I wanted to make, though, is
23 much of the discussion about how we develop measures and
24 how we sort of verify their utility has proceeded on an
25 implicit assumption that the measures are a public good

1 and they need to be developed in a top-down approach.

2 And part of the difficulty is, or at least
3 phrased as a question, are the measures useful to health
4 services researchers but not to patients and other
5 consumers of them? And hence they don't rely on them
6 precisely because they were developed in a way that's
7 more driven off of the availability of the underlying
8 medical records to give them validity from the health
9 services research perspective, but not utility from a
10 purchaser perspective.

11 DR. BARTLETT: Thank you. Again, I'm just
12 hopping to folks that hadn't had an opportunity to throw
13 some thoughts out on the table. Michael, anything you'd
14 like to add?

15 DR. VITA: Yes. Just to sort of echo a little
16 bit what David said. As I was looking through some of
17 the studies that are summarized in some of the
18 presentations we're going to see this afternoon,
19 especially on the competition and outcome measures, we
20 find that a number of the papers have found that there is
21 a positive relationship between competition and these
22 different outcome measures.

23 And as I was looking at those, it struck me: I
24 don't really know, when you think about how would
25 consumers become well-informed about those outcomes and

1 how would they act on them?

2 And if we don't really understand how that
3 happens, then I find it a little bit difficult to infer
4 that firms have the incentive to -- you know, have the
5 usual incentives in attracting more patients to make
6 those kinds of quality improvements if it doesn't elicit
7 the kind of reaction that we would expect in other
8 markets where quality is more easily measured and
9 assessed by consumers.

10 So that's where I think -- you know, the
11 biggest gap so far that I can see in the research.

12 DR. BARTLETT: Good. I'm going to focus on
13 this inner table, and come back and take a couple of
14 other comments from around the room. Herb, anything you
15 want to throw on the fire?

16 DR. WONG: Yes. Just to pick up on the
17 measurement of quality sort of issue, one of the things
18 that Marty kind of highlighted in review of his studies
19 was the notion that people have used mortality rates as
20 the proxy for quality.

21 And I think that, you know, the next generation
22 of research in this particular area might want to focus
23 on other measures. And I think that, you know, the AHRQ
24 patient safety indicators is a good way to basically kind
25 of get this jump-started in some ways because there are

1 really different dimensions of quality out there.

2 Mortality is one dimension, but I think that
3 there are other dimensions that might give different
4 insights. Even if you do an analysis, looked at the
5 impact of competition on quality, well, there are
6 different dimensions and there could be different results
7 that -- one dimension could be increasing quality and the
8 other could be decreasing quality.

9 So I think that, you know, that's the next
10 train or next generation of research, I think, that would
11 be kind of valuable here.

12 DR. BARTLETT: Let me -- Robert, before we go
13 your way, let me just sort of state the obvious. I think
14 we have begun a discussion and we've begun pulling out of
15 the presentations and your own work and experience some
16 real good suggestions in terms of where we go with the
17 future research agenda.

18 Let me suggest that you take your little
19 marginal notes -- my sense is that this conversation is
20 only going to get better and richer during the course of
21 the day -- but toward the tail end of this afternoon,
22 we'll come back and try to assemble the pieces and sort
23 of see what the suggestions and what the priorities might
24 be across this group.

25 Robert?

1 DR. TOWN: I think I want to build on something
2 both Dan raised and Marty mentioned.

3 DR. BARTLETT: Robert, bring that mike a little
4 closer to you, please. Thank you.

5 DR. TOWN: Sure. I'd like to build on
6 something that Dan mentioned and Marty mentioned in his
7 talk, and that is what I think is the deep policy
8 challenge in translating the research into policy
9 practice is that the correlations that at least we're
10 finding early between hospital competition and quality
11 might not be easily translated into a merger analysis for
12 the simple reason that each hospital merger is going to
13 be very different.

14 And furthermore, the identification that's
15 occurring in studies I've done and Dan and other people
16 have done -- and there are some exceptions where people
17 have looked at the effect of mergers -- that
18 identification is not the same identification that's
19 going to occur. This change in concentration is not the
20 same that's going to occur in a merger.

21 And I think that's going to be tricky. I think
22 it's going to be very hard to separate out, jeez, a high
23 quality hospital merges with a low quality hospital;
24 what's going to happen? Or two medium quality hospitals
25 merge; what's going to happen?

1 Those might be very different analyses, and I
2 don't think we have very much guidance from the work done
3 on how we should think about those things.

4 DR. BARTLETT: I don't want to lose the fact,
5 when we're talking about these measurement issues, that
6 it seems to me that the measure is going to be different
7 if we're talking about hospitals, if we're talking about
8 physicians, if we're talking about plans or insurers,
9 that we have to -- this is an issue that sort of is --
10 cross-cuts all these different focuses and probably has
11 different implications.

12 Dan?

13 DR. STRYER: I just wanted to very briefly
14 raise two things. One was to reiterate Herb's point on
15 the many dimensions of quality, that things can look very
16 good in one dimension and have no effect or a negative
17 impact in another dimension, and we really need to focus
18 on the big picture.

19 The other aspect is to try -- I've been toying
20 in my mind with how professionalism amongst healthcare
21 providers relates here, and that this may be totally
22 independent of competition or it may be related somehow.
23 And I don't understand how it fits.

24 Because professionalism is one of the major
25 drivers of quality, I think, from the clinical side. So

1 I'd be interested in any thoughts about that.

2 DR. BARTLETT: Bill?

3 DR. VOGT: So the comment that I have is about
4 the idea of the welfare analysis of quality. So the
5 simple way to think about it is that if, for example, we
6 found that increasing concentration led to a decrease
7 in -- sorry, that a decrease -- an increase in
8 concentration led to a decrease in quality, that that
9 would necessarily be a bad thing, where quality here is
10 inevitably in these studies some kind of average quality
11 over a whole bunch of units in the market.

12 And playing off Mark Pauly's scatter plot,
13 where he showed different price/quality points and the
14 fact that people can have different preferences over
15 price and quality -- I mean, it isn't the case that
16 welfare necessarily goes up when average quality goes up,
17 or welfare necessarily goes up when average quality goes
18 down.

19 If people have heterogeneous preferences over
20 quality and money, it's actually a good thing to have
21 both high quality and low quality providers in a market.
22 So any intervention that increases average quality, say,
23 by hacking off the bottom end of the quality distribution
24 is likely actually to be a welfare-decreasing
25 intervention rather than a welfare-increasing

1 intervention.

2 So I think it's important to think about the
3 whole distribution of quality when thinking about the
4 effects of competition on, and think about whether an
5 intervention which increases quality does it by
6 increasing quality at every point of the distribution or
7 by cutting off the bottom of the distribution or the top
8 of the distribution.

9 DR. BARTLETT: Very interesting. Meredith?

10 DR. ROSENTHAL: I was saving some of my
11 comments for my later opportunity. But I did just want
12 to repeat what a few others have said. I think it seems
13 to me the most obvious absence here is literature on
14 physician competition and understanding what those
15 physician markets look like, which are obviously going to
16 be very different by specialty.

17 And it also strikes me that we might see
18 consolidation of the type that Larry's going to talk a
19 little bit about, which is very much about price
20 leverage. And such consolidation might lead to increased
21 fees, but there might still be competition for patients
22 within that, depending on how physicians within those
23 consolidated organizations are paid. And that
24 competition might be quality-enhancing.

25 And I'll talk a little bit more about what kind

1 of quality that kind of competition is likely to produce.
2 So I think it may be important to look at how competition
3 affects these things differently.

4 DR. BARTLETT: Thank you. Lisa?

5 DR. IEZZONI: I'm just thinking about the
6 research agenda that AHRQ is going to have to come up
7 with. And I'd like to play off of something that Arnie
8 Milstein said. And that is we've talked a lot about
9 quality measurement, and a number of people have talked
10 about quality improvement.

11 I think it would be very important for AHRQ as
12 they define their research agenda to tie this to the
13 quality chasm work that has been coming out of the
14 Institute of Medicine. And the quality chasm work, for
15 those of you who don't know it, was a big IOM report that
16 came out in 2001, and talked about six aims for improving
17 quality of care and the healthcare system.

18 And among those six aims were two things -- and
19 since I'm not an economist I don't know how this fits
20 with competition -- but one of them was equity, that
21 people are treated equally regardless of their race,
22 ethnicity. You know, disparities is a really big issue
23 right now. Disability, et cetera, other characteristics
24 that they might have.

25 And a second aim that I don't know how that

1 would work with competition as well is patient-
2 centeredness. And this kind of ties onto Brent's
3 comment, that for a lot of people, you know, "Throw
4 everything that you can possibly do for me, Doctor," is
5 how some patients do define quality, although this is
6 going to vary from patient to patient.

7 And so as AHRQ, I think, defines the research
8 agenda, tying it to not only how to measure quality but
9 the six aims for improving quality, and then going to the
10 next quality chasm report, which was the ten -- or I
11 think it was maybe 15 or 20 priority areas for
12 improvement might be also really important.

13 DR. BARTLETT: Good. Thanks, Lisa. Irene?

14 DR. FRASER: I've been struck by a couple of
15 things. One is the multi-dimensionality of both parts of
16 what we're trying to measure here, both on the
17 competition side and on the quality side, which starts
18 out right there making the task of setting a research
19 agenda more complex.

20 Secondly, that the issue of causality is one
21 that will be one that will plague us. And this has come
22 up in several different ways, that, for example, looking
23 at varying levels of competition and equating that with
24 varying levels of quality is not the same thing as
25 looking at what happens when there's a merger.

1 Similarly, if you're looking at the
2 relationship between volume and outcomes, and even if you
3 assume all of the -- the veracity of much of the
4 literature that's been produced on that, that still
5 doesn't necessarily tell you what happens when a
6 particular hospital increases its volume. That's a
7 different issue than the question of having a correlation
8 across these.

9 So I guess I would conclude from that that it's
10 probably -- I'm glad I'm on the research side and not on
11 the regulatory side because the questions for research
12 are continuing. The task of trying to draw from that to
13 make a decision in a particular market in a particular
14 case about a certain type of provider and whether that
15 merger would be appropriate is certainly awe-inspiring.

16 DR. BARTLETT: I want to get you into a break
17 but I want to take a comment from the gentleman behind
18 you, Brent, and then I'll swing your way in just a
19 second. And sir, if you wouldn't mind introducing
20 yourself and using the mike.

21 MR. DANGER: My name is Ken Danger. I'm from
22 the Department of Justice.

23 DR. BARTLETT: Great. Thanks.

24 MR. DANGER: And in today's comments, people
25 have been talking about competition. But it's not clear

1 to me exactly what they mean.

2 A while back, Bob Town and Gowrisankanan wrote
3 a paper about two-stage competition, where you had
4 competition to get in the network and then competition
5 for patients, conditional upon being in the network. And
6 it's not clear what people are meaning when they're
7 talking about competition.

8 If I was to follow up on that, lately I've been
9 hearing reports that networks, from an insurance point of
10 view, have been getting broader in the sense that there's
11 been less exclusion and providers are getting included.
12 And that would seem in some sense to moot the incentives
13 to provide high quality care, and then similarly to price
14 low. So that seems somewhat important.

15 Secondly, there's this old literature on
16 procedure rates. I remember something about
17 hysterectomies, and that there are a lot of
18 hysterectomies up in the New England area and not so many
19 in other areas. And yet when you look at competition
20 indices, they don't seem to have very much variation or
21 as much variation.

22 So that seems in some sense to say that
23 competition as measured by those kinds of indices doesn't
24 seem to say anything at all about those kinds of at least
25 procedure rates and quality in general, perhaps. So I'd

1 just be interested in seeing what people have to say
2 about those two comments.

3 DR. BARTLETT: Anybody want to pick up on
4 either of those two comments? Yes, Gary, and then,
5 Brent, I'll come your way, and then we'll break after
6 that.

7 DR. YOUNG: I think that's because -- to play
8 off this point, which is that, you know, a number of
9 people have commented on the importance of information in
10 ascendance and how that does play out in terms of
11 competition among health care providers.

12 And I think in terms of developing a research
13 agenda, we do need to think very carefully about the
14 whole issue of consumer behavior and how that relates to
15 information and incentives. You know, when people choose
16 a Taurus, buy a Taurus, I think they recognize that's not
17 a Lexus.

18 And, you know, they can talk about the fact
19 that it's less expensive and they've chosen that and they
20 understand that it doesn't have the quality of a Lexus,
21 let's say. But when people choose their health care
22 providers, I don't think they necessarily recognize that
23 kind of tradeoff. And then when people choose a health
24 care provider, even though that health care provider may
25 be a Taurus, they still tend to think of it as a Lexus.

1 I know that I always find it amusing that when
2 I get together with sort of my extended family and I meet
3 a lot of my older uncles and aunts, you know, it's always
4 interesting that every one of them has managed to find
5 the best cardiologist in the world.

6 And, you know, they're all very lucky that
7 they've been able to do that. But I think that there may
8 be a lack of information, which I think economic theory
9 may help us think through a little bit. But there also
10 may be an element of what psychologists call cognitive
11 dissonance. And, you know, that's something where
12 probably economic theory can't help us that much to
13 understand how that's going to relate to this type of
14 topic.

15 So I think we need to think about the whole
16 issue of consumer behavior and how that relates to
17 information in ascendance, as well.

18 DR. BARTLETT: Brent, I'm going to come to your
19 knowledge. But know that the gentleman from DOJ -- his
20 two questions are still out there. We'll leave them as
21 open files if folks want to come back and discuss them
22 later in the morning or the afternoon, too, because I
23 think these are issues on the table.

24 Brent?

25 DR. JAMES: I think there's just some more

1 background that we should consider as we move ahead, and
2 that's building on what we just heard. You can divide
3 traditional quality, the general term, into two subsets,
4 medical outcomes and service outcomes.

5 There's a pretty good literature that suggests
6 that patients do not pay attention to simple, directly
7 applicable, easy to understand medical outcome
8 statistics -- emphasis on statistics -- when choosing a
9 physician or hospital, that they will choose people who
10 clearly have higher mortality rates in simple, easy to
11 understand data.

12 One of the problems I think we have as health
13 services researchers particularly is that we're
14 enculturated to think in particular ways, and we tend to
15 project those views out on patients. When you carefully
16 measure what patients seem to value, they appear to value
17 their relationship with a physician, usually more than
18 they value the medical outcome statistics.

19 And I think we just heard a little bit of that.
20 That's why everybody in your family can choose the best
21 cardiologist. And the reason is it's not defined in
22 terms of medical outcomes.

23 But we need to remember that there's a pretty
24 good literature that demonstrates that patients don't
25 appear to pay attention to simple, directly applicable,

1 easy to understand medical outcome statistics when
2 choosing hospitals or physicians, and that they appear to
3 value something else. And maybe one of the questions is,
4 what do patients really value, as opposed to what do we
5 as policy-makers or health services researchers try to
6 impose upon them or think that they should value.

7 DR. BARTLETT: We will miss Carol Simon. She
8 would have given us a wonderful presentation. But I'd
9 suggest we used her time very well in terms of getting
10 issues out on the table.

11 We're a bit off, but I think, again, this was
12 time well spent. I could suggest a ten-minute break; no
13 one would pay a lick of attention to me. So let us say
14 it's ten after 11:00 now. We'll come back at 11:25 and
15 we'll pick up the first panel or the first presentation
16 looking at new research, focused on physician competition
17 and quality. Larry, you'll be in the driver's seat on
18 that. So 15 minutes. We'll start up at 25 after.

19 (A brief recess was taken.)

20 DR. BARTLETT: Welcome back, everybody.
21 Earlier this morning you heard a number of very good
22 summaries about where we are in terms of our knowledge
23 base about competition and quality.

24 These next two segments, what we want to do is
25 introduce some new research on these topics. And we have

1 divided the presentations. The first one that you will
2 hear, focusing on physician competition and quality, I
3 told you that Carol Simon cannot be with us. But I'm
4 going to turn the floor over to Larry Casalino to share
5 with you some new research findings that he has
6 developed.

7 From this presentation, which will follow that
8 same format as previous presentations, we're then going
9 to ask three of your colleagues around the table for
10 quick commentaries, not more than ten minutes. We're
11 going to go to Peter Hammer, Lisa Iezzoni, and Meredith
12 Rosenthal. And then we'll roll into discussion as well
13 about this new research.

14 From there, on the far side of lunch, we'll
15 look at several new pieces of research focusing on
16 hospital competition and quality.

17 So Larry, it's all yours.

18 DR. CASALINO: Thanks. Well, I would say that
19 things are pretty much of a mess right now in health
20 care. And in response to the person from DOJ's earlier
21 on, I would say physicians for the most part don't have
22 an incentive to improve quality, although they may
23 sometimes have an incentive to look good. Nor do they --
24 they certainly don't have an incentive to price low.

25 It reminds me actually of the situation in

1 health care now, with double-digit premium increases
2 several years in a row and quality very questionable. It
3 reminds me of apparently a true story about Churchill.
4 After Britain had won the war and Churchill was -- his
5 party was up for election not long afterward, as most of
6 you probably know, they were expected to win easily and
7 they actually lost very badly.

8 And it was clear by lunchtime that that was
9 going to happen. And Churchill was sitting at 10 Downing
10 Street with his wife and some of his staff, and everybody
11 was quite glum. And his wife was trying to cheer people
12 up and she said, "Well, Winston, perhaps this loss is
13 really a blessing in disguise." And Churchill said,
14 "Yes, perhaps it is a blessing in disguise. But if so,
15 it appears to be very effectively disguised."

16 And, you know, I think in health care, for
17 physicians, I think they would also be in the situation
18 of looking for a blessing in disguise. And I think there
19 is one in the mess that we have now, which is there are
20 some incentives for medical groups to form, which can be
21 a good thing or a bad thing. And that's basically what
22 I'm going to talk about today.

23 I think it can be good if medical groups form
24 because I would argue that for most kinds of medical
25 care, groups of some size -- they don't necessarily have

1 to be very large -- have capabilities to improve quality,
2 the potential to improve quality, that individual
3 practitioners or small groups of practitioners simply
4 cannot develop. They don't have the management systems.
5 They don't have the expertise. They don't have the
6 information systems.

7 I would also argue that no medical groups, no
8 competition on quality, at least at the physician level,
9 for most physicians. I mean, for bypass surgery, you can
10 measure the performance with some difficulty of
11 individual surgeons and probably do a pretty good job on
12 it.

13 But for most of the quality indications you'd
14 like to measure, especially in outpatient care, you just
15 don't have the volume for any individual physician to get
16 statistically reliable and valid measurements. So the
17 measurements really should be at the group level and the
18 rewards at the group level. So that means no
19 competition -- if you want competition, you have to have
20 medical groups of some size, I believe, competition on
21 quality or cost.

22 So those are the good thing about groups. Now,
23 the bad thing about groups is that the main reason that
24 large groups are forming right now is indeed to get
25 negotiating leverage with health plans.

1 And the system -- the main competitive
2 incentive in our health care system now for most
3 physicians is what I would call -- and for health plans
4 and hospitals as well -- is what I would call a
5 negotiating leverage arms race. The idea is to get big
6 so you can have more leverage than the person who you're
7 negotiating against.

8 And this can lead, given the imperfect
9 competition in the market, to the optimal size of a
10 medical group for negotiating being larger, maybe a lot
11 larger, than its optimal size would be for efficiency,
12 for low cost, or for high quality. And I believe that's
13 happening now, and I believe it's a real danger.

14 My comments today will be mostly based on work
15 from the community tracking study site visits, a little
16 bit from the surveys, and then a bit from the national
17 survey of physician organizations that I did with some
18 colleagues at Berkeley, which I'll talk about in a
19 minute.

20 But in our site visits -- and Jon Christianson
21 and Gloria Bazzoli are colleagues on these visits --
22 mostly what you hear about, especially in relation to
23 health plans but sometimes in relation to physician
24 groups or hospitals -- it depends on the site -- is the
25 two-ton gorilla or the 800-pound gorilla or the 1200-

1 pound gorilla or the 1400-pound gorilla.

2 This comes up again and again and again in
3 interviews. It's very often the first thing that comes
4 up. In fact, for the next round, we're going to make one
5 of our main questions in interviews is, how many pounds
6 is the gorilla really? Because we get really conflicting
7 information about this and we want to know how many
8 pounds these gorillas are. So that's really what's going
9 on out there.

10 Now, I am forgetting to move the slides here.
11 So that's the one I just talked about. What I'll talk
12 about is, briefly, the -- and very briefly, all of
13 this -- the extent and type of physician consolidation;
14 the reasons for it; the extent of use of organized
15 processes by physician groups to improve quality, insofar
16 as we can determine; what physician groups actually
17 compete on; the effects of consolidation on quality, if
18 we can tell anything about that; and some antitrust
19 implications.

20 Now, physicians have been consolidating for
21 many decades, way before managed care, mostly into pretty
22 small groups -- you know, moving from solo or two-
23 physician practices to four-, five-, seven-physician
24 practices. And that still continues. I'll show you a
25 slide about that in a moment.

1 What we saw during the '90s is a move to create
2 large primary care-based, multi-specialty groups and
3 IPAs. Actually, a lot of this was -- there was less of
4 this than you might have expected, given the incentives
5 to do it.

6 But given that people thought there was going
7 to be risk contracting, given the importance of
8 gatekeeping, and given the importance of negotiating
9 leverage, the way to go seemed to be to create these
10 large groups, multi-speciality, and that were primary
11 care-based.

12 But as soon as it became apparent in the late
13 '90s, 2000, that risk contracting wasn't coming along and
14 gatekeeping was receding, what we found in the community
15 tracking studies is creation of large multi-specialty
16 groups has just stopped. I'm talking about medical
17 groups now. IPAs are struggling to find a reason to
18 exist; without risk contracting, it's not clear that
19 there is a reason for IPAs to exist.

20 So they're really having some trouble. And as
21 I say, the motivation to create large multi-specialty
22 groups has really been reduced because specialists now no
23 longer have much reason to be in a group with primary
24 care physicians. If they're in a group with primary care
25 physicians, they might have to share income with them and

1 also they have to share decisions. And there's all kinds
2 of complications in a multi-specialty group.

3 And you can get a lot of negotiating leverage
4 if you're a group of 20 orthopedists -- you don't have to
5 be that big -- or ten in some places, whereas you have to
6 be pretty big in most places to be a multi-specialty
7 group.

8 So specialists are much less willing to do this
9 now. And what we've been seeing over the last three
10 years especially, although a head start even a little bit
11 before that, is formation of large single-specialty
12 groups in the community tracking study areas.

13 These are actually some results from the
14 physician survey side of the community tracking study,
15 where 12,000 physicians in private practice are surveyed
16 every couple of years. And what you see in the last
17 round is still about 90 percent of physicians in private
18 practice are in groups of 19 or fewer. So really large
19 groups is about 9.6 percent.

20 And to break it down by size a bit more, this
21 slide says a bit what I was just talking about.
22 Obviously, this is not broken down by specialty. But you
23 can see that even between '97 and 2001, the movement
24 that's been going on for decades of physicians in one-
25 and two-physician groups into the three- to nine-

1 physician group size, the kind of small to moderate size,
2 that's continuing; and also into some what I will call
3 moderate size groups, actually, the 10- to 19-physician
4 groups. But there really wasn't movement in those four
5 years into the larger sized medical groups.

6 Now, if you look at the single specialty groups
7 by site in the community tracking studies, there are some
8 -- you can see that in quite a few of the sites, there is
9 one large orthopedic group. Several of the sites have a
10 number of large cardiac groups. And by large, I mean
11 usually at least 20, but some of these are as large as a
12 hundred or more physicians.

13 There are some ophthalmology groups. You can
14 see there's quite a difference in the number of large
15 sized single-specialty groups by site. Indianapolis has
16 a lot. Indianapolis also has a bunch of specialty
17 hospitals, four of them, four heart hospitals and an
18 orthopedic hospital, that have been created in the last
19 few years or are being created.

20 And I think that's not an accident in terms of
21 the number of single-specialty groups that are there. We
22 have a paper coming out on this soon, I believe. The
23 orthopedic hospital there is solely owned by
24 orthopedists.

25 But there are some large sites with almost no

1 single-specialty groups. In New Jersey, for example,
2 there's basically nothing in the northern New Jersey area
3 centering around Newark.

4 And again, this just -- these percents are --
5 it's just another way of looking at it. These are for
6 physician groups of ten or larger. You can see that even
7 if you look at groups of ten or larger, in the twelve
8 metropolitan areas of the community tracking study the
9 number of truly large groups, 25 or more or certainly 50
10 or more, is certainly quite small. These are single-
11 specialty groups.

12 One thing I think for the regulators here to be
13 aware of is that the physicians are extremely aware of
14 antitrust liability, and so it's quite common for a
15 single-specialty group leader to mention to us that they
16 know what percent of the market they have, and they're
17 below that, and they talk to their lawyers about that so
18 they won't have antitrust problems.

19 So it's probably not going to be very common to
20 find someone who, in terms of percent of specialists in a
21 market, is going to look like an antitrust problem from
22 there. I think the combination of size and brand name,
23 insofar as medical groups can establish a brand name, is
24 pretty potent, just as it is for -- can be for hospital
25 systems.

1 I'm going to skip the next -- no, I'm not going
2 to skip the next slide. Okay. Now, in terms of why
3 physicians are forming groups, this slide -- this is
4 for -- when we went around and interviewed people this
5 time on round four site visits, we also gave them a
6 little survey to fill out just so we'd have some semi-
7 quantitative results.

8 And you can see that the leaders of the medical
9 groups rated lifestyle and improving quality and
10 economies of scale very high, and they rated leverage
11 with health plans very low -- well, not low, still up at
12 3-1/2, but lowest; whereas if you asked hospital
13 administrators about the physician groups, what they
14 thought were the motivation for physicians to form
15 single-specialty groups, they thought -- they ranked
16 quality, improving quality, as a motivation for forming
17 these groups quite low and leveraging plans quite high.

18 And indeed, in the interviews themselves, which
19 ranged in length usually from 60 to 90 minutes, there was
20 almost invariably a lot of talk from the physicians about
21 leverage, about they had to deal with the 1200-pound
22 gorilla in the market. But now they are the 1200-pound
23 gorilla in the market, or I should say they're a 1200-
24 pound gorilla, too, to quote one orthopedist.

25 And I think they sincerely believe that their

1 groups are going to improve quality. But most of them
2 still have the individual physician view of quality, I'll
3 call it, where they still believe that quality is purely
4 what the individual physician does for the individual
5 patient, whoever happens to show up for them in the ten
6 minutes they're in the office with them.

7 And they mostly -- there are exceptions, but
8 mostly they don't have an idea that they should develop
9 some organized, systematic processes to improve quality
10 either in their offices or in the ambulatory surgery
11 facilities that almost all of them have created. And if
12 you ask them directly, well, what specific -- as we
13 did -- what processes are you using to improve quality in
14 your facilities or in your group, you really didn't get
15 just about any specific answers.

16 One other point about this slide: I think
17 economies of scale, some of you may know that the studies
18 were done -- they're quite old now -- on economies of
19 scale in medical groups, and they say, well, economies of
20 scale is pretty much exhausted at -- and I get 20 more
21 for Carol's time, right? -- at four to six physicians.

22 You know, I think that probably has changed
23 because even leaving the possibility of risk contracting
24 aside, I think because of the need for information
25 systems, the need to deal with more regulations, so to

1 have better management and economies of scale in
2 management, and certainly to improve quality, economies
3 of scale are probably a lot larger than four to six. It
4 will depend on the specialty.

5 But, you know, economies of scale are probably
6 not 500 for a physician group, but whereas 500 can be
7 pretty good -- I'm talking about a multi-specialty group
8 now -- if you want to negotiate with a health plan.

9 In the national survey of physician
10 organizations that I mentioned, we got the most complete
11 census that we could get by combining five databases,
12 including the AMA's, to develop a list of medical groups
13 in the United States of 20 or more physicians, and also
14 all the IPAs we could find. So we found about 1,040
15 physician organizations with more than -- 20 or more
16 physicians, leaving out hospital-based specialists like
17 anesthesiologists, radiologists, pathologists.

18 And then we -- this is the article that was
19 published in JAMA in January that some of you may have
20 seen -- and we have five kinds of care management
21 processes that we asked about. And I think in terms of
22 what Patrick said earlier, for each of these there's some
23 evidence that they actually affect outcomes. But, you
24 know, if I had to stand up here for the next hour and say
25 the evidence was really great and defend it in detail,

1 I'd have a hard time because there just isn't that much
2 evidence yet.

3 But there is some for each of these and they
4 had face validity, and we used them. And we asked about
5 care for chronic diseases. So with the four processes
6 and the four diseases, they could have a total score of
7 16. They could be using a maximum of 16 care management
8 processes.

9 And we found an average of 5.1 out of the 16
10 nationally. And these are in groups of 20 or more. We
11 are pretty sure if we asked smaller groups, the mean
12 would have been a lot lower than 5.1. And actually, we
13 believe the 5.1 is even an exaggeration because although
14 we tried to ask questions in such a way -- we didn't just
15 say, "Do you use guidelines?"

16 We had some pretty specific questions so that
17 they couldn't just wave a hand and say, "Oh, yes, we do
18 that." Still, we think this is probably a bit of an
19 exaggeration. Nevertheless, a sixth of these medical
20 groups of 20 or more physicians and IPAs used zero of
21 these 16 care management processes.

22 In terms of the factors that were associated
23 with a group using more care management processes, size
24 really wasn't important. So it really didn't matter if
25 you were 20 physicians or 500 physicians. You really

1 didn't do more care management processes, basically.

2 The most important thing by far was: Did the
3 groups -- were they rewarded for improving quality? Did
4 they have external incentives? And we actually -- we
5 asked about seven incentives. We found if they had two
6 more incentives, for example, they did 40 percent more
7 care management processes.

8 This is not, obviously, an issue that antitrust
9 can deal with directly. But I think it's an important
10 finding. Getting publicly recognized for quality
11 actually was one of the most potent predictors of whether
12 groups would use care management processes.

13 However, by and large these groups didn't
14 report that they had incentives to improve quality. The
15 mean was less than two out of the seven possible
16 incentives that we asked about. And fully a third of
17 these physician organizations reported that they didn't
18 have any external incentives to improve quality at all.

19 Now, in terms of what physicians compete on, as
20 I said, in the interviews they talked much more about
21 competing with plans in negotiating leverage than
22 competing with other physician groups. That, by and
23 large, was less of a factor. They don't have it, by and
24 large. Brent James has talked about this and written
25 about this a lot.

1 By and large, as you can see from the incentive
2 data, they don't have a business case for investing in
3 organized processes to improve quality, and they're aware
4 of that. A lot of them said, you know, we'd really like
5 to do this, but again, I mean, we'll put money into it.
6 We won't get any money back. Why should we do it?

7 There's some competition on perceived quality,
8 on having a brand name. And there's really no
9 competition to speak of except in places where there's
10 risk contracting on controlling utilization or
11 controlling costs. So incentives are really key.
12 Without them, I think physician groups will compete on
13 perceived quality only.

14 Now, in terms of effects of physician
15 consolidation on quality, just to wrap up, first of all,
16 has there been enough physician consolidation to decrease
17 consumer choice? I don't think that's really so much of
18 a concern at present.

19 I mean, it is true that, you know, the Palo
20 Alto Medical Clinic, for example, has increased about
21 three times or more in size in the last decade, and it
22 was purely to get negotiating leverage because they
23 thought their quality was plenty high before. So they
24 have size and they have a brand name.

25 And, you know, if you're a health plan, it's

1 hard to sell to Silicon Valley firms if you don't have
2 the Palo Alto Medical Clinic. So I suppose you could say
3 that that could have effects on consumer choice if Palo
4 Alto decided, you know, they're not going to contract
5 with Aetna. Plans do report problems in rural areas
6 where there just aren't alternatives in physicians. Oh,
7 here's some Microsoft symbols. Thanks.

8 Now, there is a somewhat subtle effect. For
9 example, if you create a large single-specialty group,
10 you may get increased volume for some of your
11 specialists. And I'm not talking about really the group
12 having an ASC and running volumes through there, which
13 could be a good thing. But it could permit
14 specialization within specialties. So, for example, in
15 some of the large orthopedic groups, you'll have
16 orthopedists who only do spines, or only certain kinds of
17 procedures on spines, or only operate on these. And that
18 probably is good.

19 And I'm going to skip the effects of over-
20 capacity.

21 I think one way that increased consolidation
22 for anyone -- health plans, physicians, hospitals --
23 hurts consumers is there's so much contract dispute
24 brinkmanship, where in many markets it's just routine now
25 to terminate a contract. And especially between

1 hospitals and health plans, it just comes down to full-
2 page newspaper ads right until the last day, saying, you
3 know, you're not going to be able to come to your
4 favorite hospital any more because of those greedy health
5 plans, and vice versa.

6 Again, just going to my original point about
7 why I think it is useful to have medical groups of some
8 size, it's useful to have them large enough so they can
9 implement organized processes to improve quality, and in
10 the twenties may be plenty large for that. And also,
11 it's important to have groups of some size sufficient to
12 serve as units of analysis for measurement of quality and
13 rewards for quality, and therefore competition on
14 quality.

15 Just a quick mention of hospital-based
16 specialists. We hear about this a lot from health plans.
17 This is something that really should be studied, I think.
18 Anesthesiology groups, ER groups, really have monopolies,
19 more or less, in certain areas. Radiologists.

20 And as you can see from this quote from a
21 health plan CEO, they're able to do a lot better than
22 primary care physicians, for example, in their
23 negotiations. Primary care physicians mostly don't get
24 to negotiate. They take what the health plans give them.
25 But the hospital-based specialists don't.

1 Okay. And then to conclude, what are the
2 antitrust implications? Well, so far I would say the
3 effects of physician consolidation, unlike of hospital
4 consolidation, where it's a huge factor right now -- but
5 that's been talked about in previous hearings here -- I
6 would say the effects on choice are pretty small so far
7 and the health plans are much more concerned in general
8 with hospital rather than physician leverage except for
9 the hospital-based specialists that I just mentioned.

10 I think in terms of leverage versus quality, I
11 think the FTC has been wise to oppose permitting
12 physicians in independent practice to negotiate jointly
13 with health plans because of health plans' market power.
14 I do believe that most physicians are at a huge
15 disadvantage in negotiating with plans.

16 However, if they want to get into a group where
17 they can have some leverage, they can either form a
18 medical group, which does have the potential to improve
19 quality, or there's the FTC kind of safe harbor now where
20 if a group of independent physicians, not a medical
21 group, clinically integrates, they have a good chance of
22 being allowed to negotiate jointly with health plans.

23 So if physicians want to improve quality, as
24 they say, and that's the reason they want to be able to
25 negotiate jointly with health plans, they can do it now.

1 They don't need another antitrust exemption.

2 In terms of evaluating clinical integration, I
3 would look for evidence that organized processes to
4 improve quality are being used. And then as an antitrust
5 regulator, I would scrutinize organizations that use
6 messenger models very, very carefully. I think those are
7 basically negotiating cartels.

8 I just mentioned the second point. The third,
9 the position of the hospital-based physicians. And most
10 important of all, I think, and partly an antitrust
11 problem and partly perhaps a problem for purchasers, the
12 system now is really -- the main competitive incentive is
13 the negotiating arms race, negotiating leverage arms
14 race. And so strict antitrust enforcement against health
15 plans, physicians, and hospitals could help with that.

16 But it may be that the negotiating model of
17 determining prices, what providers get paid, isn't the
18 best model. Now, whether the alternative is administered
19 prices, that may not be so good. There are people like
20 the Buyers Healthcare Action Group in Minneapolis or
21 other areas where people are working on tiered pricing
22 schemes where there may be ways to get around this
23 negotiating model which basically leads to organizations
24 striving for size that's probably bigger than their
25 efficient size for quality or cost.

1 Thanks.

2 DR. BARTLETT: Thank you, Larry, very much. We
3 appreciate it.

4 We're going to turn now to the three commenters
5 who are going to offer brief remarks on --

6 VOICE: Microphone.

7 DR. BARTLETT: Yes. Thank you -- on Larry's
8 presentation, but also sort of moving into the broader
9 area of physician competition and quality. And Peter
10 Hammer, we'll start with you, please. And you can just
11 do it from your seats.

12 DR. HAMMER: You're going to need a bigger
13 hook, then, for getting me in the time limits. But I'll
14 try to keep this short.

15 I thought the most useful thing that I could do
16 is talk not just about physician competition and quality,
17 but also speak generally about the role of antitrust law
18 in trying to facilitate quality competition. And I'll
19 try to cover both of those fronts in my comments.

20 First is, if you're going to try to use
21 antitrust law to better deal with quality, you have to
22 underline that there's an underlying conflict in the way
23 that economists and antitrust lawyers approach questions
24 of quality than health services research.

25 Some of that might be ideological. Some of

1 that's from professional training. Some of that's just
2 the way different disciplines define topics. But from a
3 professional paradigm or health services research
4 paradigm, there's an absolutist or objective nature of
5 what quality is.

6 And I use it in teaching purposes for students
7 to think of quality as apart from competition. Right?
8 That we have competition, and then we have quality, and
9 that they're two distinct things. And quality is really
10 apart from competition.

11 That's not the way that antitrust law and
12 that's not the way that most economists think about
13 quality. The antitrust paradigm, quality is very much a
14 part of competition. And if you ask an antitrust lawyer
15 or economist what quality is, they would look to the
16 market itself as the process through which to define what
17 quality is and what levels of quality are appropriate.
18 And at some level, we're trying to define research
19 agenda, understanding at least that chasm between
20 approaches to quality is also important.

21 We saw in the presentation this morning the
22 breakdown for health services research and the
23 structure/process/outcomes paradigms as a way to approach
24 quality problems.

25 If you look at economic perspectives or

1 antitrust, they frequently speak in terms of choice.
2 Right? Product differentiation. Location. Emphasize
3 the role of information as a non-price dimension.
4 Credentialing. As well as the need for innovation.
5 Right? So you sort of think about the multi-dimensions
6 of quality. What would be listed in different parameters
7 is going to depend upon the audience that you talk to.

8 If we think specifically about antitrust law
9 and physicians, I have a couple of comments. I'll sort
10 of segregate them into both data and then doctrine.

11 In terms of data, it's also important to
12 remember that private litigation is, at least in terms of
13 raw numbers, far more common than public litigation.
14 We're being cosponsored by the FTC, the Department of
15 Justice, all do very important antitrust enforcement.

16 But private cases, if you look at medical
17 antitrust litigation, constitute about 95 percent of all
18 litigation. All right? So there's a lot of activity out
19 there on the antitrust front apart from federal
20 enforcement policies. And there's also the potential for
21 private litigation to be used for anticompetitive
22 purposes. Right? So antitrust is not always about
23 building competition. It has a darker side, potentially,
24 in actually trying to sometimes inflict harm upon
25 competitors.

1 Within the realm of private antitrust
2 litigation, about two-thirds of the activity still
3 focuses upon hospital and physician relations. And
4 that's broken down about evenly into staff privileges
5 cases and exclusive contracting cases. And those don't
6 go away.

7 If you look at the past 15 years, they're
8 pretty constant in their numbers, despite the fact that
9 plaintiffs -- and the plaintiffs here are typically
10 physicians -- lose vast numbers. I think the numbers are
11 about 9 percent for some type of successful outcome in
12 the antitrust litigation for staff privileges, and about
13 14 percent for exclusive contracting. So you have a huge
14 number of cases, large failure rates, and they don't go
15 away.

16 If you think then about the way in which
17 antitrust law approaches physicians -- and this is where
18 we go from data to doctrine -- most physicians don't have
19 market power. I think Larry's data is interesting as
20 it's showing the building of specialty physician groups
21 start pushing the envelope on whether and when physicians
22 can have market power.

23 But by and large, physicians don't have market
24 power, and most people would agree that barriers to entry
25 into physician markets are substantially lower than would

1 be comparable barriers to entry into hospital markets.
2 And so even if they do form large groups, there's a
3 question about how long they could sustain exercising
4 that market power.

5 That's not to say that leverage isn't
6 important, and not that Larry's findings are not very
7 much on point, that a lot of this is about leveraging.
8 And a lot of leveraging does not violate the antitrust
9 laws, which is also a good reminder.

10 But in terms of doctrine, most of the antitrust
11 punch comes with physicians from the per se rules -- per
12 se rule against price fixing, per se rule against
13 territorial divisions, per se rule against group
14 boycotts. And there the important dividing line is
15 classification.

16 And as Commissioner Muris pointed out today,
17 whether something is viewed as in a per se box or whether
18 it's in the rule of reason -- and this is where the
19 Department of Justice and the FTC guidelines become very
20 influential.

21 Permitting clinical integration is actually a
22 fairly radical step from antitrust doctrine as a basis of
23 integration that would move you from a per se box when
24 negotiating price into the rule of reason. And those are
25 important distinctions.

1 But I would say other than sort of policing
2 naked restraints -- no price-fixing, no group boycotts,
3 no territorial divisions -- antitrust law in terms of
4 physicians will have a less important effect than it may
5 have on the fronts of health plans, and certainly of
6 hospitals and hospital mergers.

7 The next series of comments I'd like to make go
8 now to thinking about systemically or institutionally how
9 well antitrust law and antitrust courts can deal with
10 quality concerns generally in health care. And if we're
11 going to be making policy or thinking about policy in
12 this area, it's important to calibrate and think about
13 what courts do well in respects to medical quality and
14 what courts don't do well with respect to medical quality
15 and what antitrust courts can accomplish.

16 Antitrust law -- and this is a fair history of
17 the last 15 years, 30 years, perhaps, in health care --
18 can create a space for private markets. They can police
19 naked restraints, and they can get fairly active price
20 competition running. And I think that we've seen that.
21 And a lot of the price competition that we do have in
22 healthcare may be credited in part to active antitrust
23 enforcement.

24 They can protect a very narrow range of
25 productive efficiencies. Right? So to the extent that a

1 hospital can document and prove an economies of scale
2 argument, and the argument about quality and scale fits
3 comfortably within that model, if the evidence suggested
4 that existed, that would be something antitrust doctrine
5 could fairly easily accommodate even as it goes from
6 productive efficiency into protecting quality in terms of
7 scale.

8 Antitrust law can only afford quality, in the
9 sense of health services research, fairly limited
10 protection. If you look at how antitrust courts deal
11 with quality concerns, we're now going back to that chasm
12 and the different paradigms I spoke of earlier.
13 Antitrust law when it thinks about protecting quality is
14 trying to protect choice. Right? It's trying to protect
15 the flow of information and the supply of information.
16 And it has an ability to protect quality and non-price
17 concerns to the extent that they fit in what I call
18 demand-side models of quality competition.

19 So an economist will sort of write their demand
20 curve up, and if you can identify an aspect of quality
21 that would stimulate demand and shift the demand out,
22 that's a framework in which antitrust courts and lawyers
23 can think. And to the extent that you can fit quality
24 concerns into that demand-side model, then there's an
25 effective basis within doctrine and understanding to try

1 to accommodate that from an antitrust perspective.

2 There's a whole lot else that antitrust courts
3 do not do well. And if you're trying to define research
4 agendas and policy in this area, it's important to
5 understand limitations of antitrust law as well as
6 strengths.

7 Antitrust law does not deal well with market
8 failures, and market failures are endemic in health care.
9 Antitrust actually privileges simple rules for very good
10 reasons. They have to be applied by non-specialists.
11 They have to speak generally to all aspects of the
12 economy. So there is not a well-established ability or
13 sophisticated ability to deal with market failures in
14 antitrust law.

15 Antitrust law also doesn't deal well with what
16 I call supply side quality concerns. These are basic
17 questions as to what is the health care production
18 function? What's the role of technology? What's the
19 role of innovation? What's the role of knowledge-based
20 medicine, practice guidelines, medical errors?

21 Most of the things that are going to be
22 tripping off the tongues of participants here when they
23 think about quality, and very important in real senses,
24 don't have nice analogues within antitrust doctrine and
25 courts can't deal with them or have not dealt with them

1 very well to date.

2 The last area which they don't do well is the
3 area of price/quality tradeoffs. Part of that is
4 because, as we saw with Marty's presentation, economic
5 theory doesn't tell us a whole lot about what's going to
6 happen when both price and quality are variable.

7 And antitrust law usually lags very
8 substantially developments in economic theory, and
9 without clear theory and guidance from economics,
10 antitrust law is not going to be able to deal with
11 price/quality tradeoffs very effectively.

12 Typically, antitrust courts tend to assume that
13 if there's active price competition, well, then, that
14 will protect quality as well. So more likely than not,
15 they try to protect quality concerns or non-price
16 concerns by trying to fair it out and protect active
17 price competition.

18 A few comments on antitrust treatment of
19 quality, and then I'll stay well within my limits and
20 silence myself, self-censorship, because the moderator is
21 too far away to stop me.

22 Antitrust and quality: Courts -- and this is
23 interesting; Bill and I did a lengthy survey of all
24 medical antitrust litigation from 1985 to 1999, trying to
25 code judicial opinions and how they treat quality.

1 Almost no -- right? -- almost zero attention to quality
2 as defined in the high tech services literature. All
3 right? And that's sort of an important take-home point
4 for people here.

5 The idea of clinical structure, clinical
6 process outcomes, were quoted in a handful of occasions
7 in over 500 opinions. All right? So there's not good
8 communication or penetration into a judicial realm or
9 antitrust realm. And if you're going to get more
10 sophisticated treatment in antitrust courts, you're going
11 to have to be doing a lot of education and there's got to
12 be an infusion of that research into the litigation in
13 various ways.

14 When they do deal with choice, and this
15 reiterates what I've said earlier, it's all about -- or
16 deal with quality, it's all about choice and innovation
17 and information and the way that economists deal with it,
18 not the way that health care services research deals with
19 it.

20 And the last sort of just sort of side comment,
21 and more from an empirical perspective, antitrust law has
22 played only a minor role so far in dealing with quality-
23 related concerns in the context of managed care. All
24 right? Most of the cases again are mired into these
25 hospital/physician relationships. Very little attention

1 so far, at least in actively litigated cases, in
2 exploring the various implications that managed care has
3 in the context of quality. But that's all the comments
4 that I had prepared.

5 DR. BARTLETT: Great. Thank you, Peter.

6 Let's now turn to Lisa Iezzoni for --

7 DR. IEZZONI: Okay. Lisa Iezzoni. Thanks.

8 To get to the point of physicians being able to
9 compete on quality, you need five things. First of all,
10 you need an evidence base that is scientifically
11 rigorous. Second, you need quality measurement metrics.
12 Third, you need data that are comparable across the units
13 of observation. Fourth, you need meaningful units of
14 observation. And fifth, you need motivation.

15 And I'd like to take each of these five briefly
16 in turn and argue that, in fact, to achieve each of them,
17 you need cooperation, collaboration, or at least
18 collegiality across physicians, maybe even along with our
19 hospitals, and maybe even health plans.

20 Now, I'm going to come up with a couple of
21 examples from where I happen to be from, which is Harvard
22 Medical School. And we can argue here whether
23 Philadelphia or Boston or some other city has the more
24 kind of unusual medical market, but Harvard Medical
25 School is one of the three medical schools in Boston. I

1 would argue that probably the Boston market is dominated
2 by academic medical centers affiliated with these three
3 medical schools.

4 And for those of you who don't know, about
5 seven years ago two major Harvard affiliates, the Brigham
6 and Women's Hospital and Massachusetts General Hospital,
7 combined together to create something called Partners.
8 And then my hospital, Beth Israel Hospital, joined about
9 a year later with the Deaconess Medical Center and a
10 number of other smaller hospitals, like the Mount Auburn,
11 which is a community Harvard affiliate, to create
12 something called Care Group. So I'll have a couple of
13 examples based on that experience.

14 Okay. So, number one, creating an evidence
15 base. What I'm talking about is the scientific evidence
16 that tells you that one treatment is better than another
17 treatment. Rarely will a single institution, and almost
18 never a single physician, be able to have an adequate
19 number of patients or diversity of patients to be able to
20 rigorously test medical treatments. So they're going to
21 have to cooperate.

22 Now, in our instance, our dean forced
23 cooperation. Dean Joseph Martin of Harvard Medical
24 School said that Partners and Care Group could not go
25 independently to the NIH to create a clinical oncology

1 center to test cancer treatments, but we had to go in
2 together.

3 And so what has been happening ever since is
4 that Harvard-affiliated physicians at Care Group and
5 Harvard-affiliated physicians at Partners have been
6 trying to cooperate on coming up with cancer trials.
7 Obviously, we're good academics. We salute our dean and
8 we try to do that.

9 But, in fact, it is very difficult to have
10 academics get together and cooperate in kind of an
11 academic setting, and then turn around and go back to
12 their day jobs, which is kind of competing with the
13 people across the street. So that's just one example
14 where creating the scientific evidence base requires
15 cooperation that sometimes is compromised by competing
16 the rest of the time.

17 Okay. Number two, you need to develop
18 reasonable quality measurement metrics. Now, sometimes
19 on developing quality measurement metrics, especially
20 those that are statistically based, will require large
21 data sets. Now, a number of the studies that you've
22 quoted this morning have relied on data from state
23 hospital discharge abstracts, from the HCUP, or from
24 Medicare. But, in fact, that only looks at limited
25 numbers of -- or limited types of patients, like Medicare

1 beneficiaries, obviously an important group. But it also
2 may just only look at hospitalized patients.

3 We, a number of years ago, also wanted to look
4 at outpatient care and among working-age people and their
5 families. And trying to come up with data to be able to
6 develop quality measurement metrics for working-page
7 people and their families is actually very difficult.

8 So in the mid-1980s, I approached a Harvard
9 professor whose name you would all know, for those of you
10 who know anything about health services research at
11 Partners, to ask him if he would be willing to work with
12 me on looking at risk adjustment, which is a statistical
13 technique to assure that when you're comparing outcomes
14 across groups of patients, that you're accounting for
15 differences in the disease mix across your units of
16 observation.

17 Now, this Harvard professor said, "Well, I'd
18 better ask my bosses at Partners whether it would be okay
19 for me to work with you, another Harvard professor,
20 because you're a Care Group." And, in fact, it came back
21 that no, he was not allowed to work with me because we
22 were viewed as a competitor and they didn't want to
23 combine Partners and Care Group data because they didn't
24 want these two competing organizations to do this.

25 So I said, okay, you know. For academics no

1 longer to be able to collaborate within the same
2 university is an interesting outcome of this. But I
3 waited my time, and a couple of years later I asked him
4 again if he would like to collaborate on a project where
5 we would use the risk data from Partners and Care Group.

6 By that point, Partners had tried to do this
7 themselves, and what they found was that even though they
8 are very, very big, that their data set, even, was not
9 big enough to be able to have the statistical robustness
10 to be able to develop good risk adjustment techniques.
11 And so at that point they said, sure. Why don't you
12 combine together the Partners and Care Group data in this
13 project.

14 And so there is just an example, where even a
15 very, very big organization was simply not big enough to
16 be able to develop the metrics without collaboration with
17 a competitor across town.

18 Okay. Now, the third thing that you need is
19 comparable data cross your units of observation. And
20 there is no single agreed-upon standard medical
21 computerized information system. I'm sure that when you
22 go out to do your interviews with the physicians in the
23 tracking survey, that you ask them whether they have
24 computerized information systems, and they are all over
25 the map. There's no uniformity.

1 Partners and Care Group have found this out, to
2 their large cost -- there have been large cost
3 implementations, to trying to have the MGH and the
4 Brigham, for example, get even on the same platform for
5 hospital-based computerized information systems. And
6 it's even more difficult for physicians' offices to
7 develop uniform information systems.

8 But you need that uniformity to be able to
9 compare and to be able to compete on comparable data.
10 And so you might be able to come in, like HIPAA has done,
11 the Health Insurance Portability and Accountability Act,
12 which is to now impose data standards on physicians, for
13 example, is you want to create comparable physician data.

14 But if you're going to be looking at those 45
15 percent of physicians who are still in one- or two-person
16 practices, you're going to have to collaborate somehow to
17 come up with medical information systems that are going
18 to be practical for that 45 percent of physicians who are
19 still in solo practice or in combined practices with one
20 other person. And so there's a situation where again you
21 have to get together with other types of physicians to
22 come up with a reasonable way to collect information.

23 Fourth, the unit of observation issue Larry
24 talked about a bit, that you simply cannot do reasonable,
25 rigorous quality measurement when you're talking about a

1 solo practice. Although maybe you can do that for a
2 cardio-thoracic surgen. Even there, your sample size is
3 simply not going to be big enough.

4 I'm not a statistician. I can't make the
5 technical argument. But I guarantee to you that my
6 statistician colleagues would come in here and pound the
7 table and say that having just one physician or even a
8 couple of physicians together is simply not going to have
9 an adequate sample size.

10 However, there are some exceptions to that.
11 Patrick talked this morning about satisfaction measures
12 or patient experience measures, like the CAPS measure.
13 Every single patient has perceptions of what their care
14 was like. And so if the kind of metric that you're going
15 to use is going to be a metric that applies to every
16 single patient, maybe in fact an individual physician
17 could be your unit of observation, assuming that that
18 physician has at least maybe 30 patients. That's the
19 kind of magic number that's plucked from the air.

20 But once you get down to even kind of the
21 standard condition, usual suspect conditions --
22 congestive heart failure, diabetes, asthma -- even once
23 you look at those very high volume conditions, often,
24 even in a busy primary care practice, there simply are
25 not going to be enough patients to be able to do

1 something rigorous.

2 And so here's a situation where if you don't
3 have physicians practicing together willingly, you're not
4 going to be able to measure competitively, for
5 competing -- to support competition. And so you do have
6 to think about combining data across physicians.

7 So then, finally, the fifth thing that you need
8 is motivation. Now, obviously you folks are probably
9 better able than I am to come up with all sorts of
10 economically-based motivations. Pay for performance is
11 one that I hear is kind of taking flight, and Arnie
12 Milstein might be able to tell us a little bit more about
13 that.

14 But somebody, I think, kind of plaintively
15 early in the morning talked about professionalism among
16 physicians. I remember you said that, and it kind of
17 went into the air around the room. And I think that
18 actually physicians, yes, they probably are economically
19 motivated.

20 But they're people, too, you know, and they
21 have complex motivations, just like other people do. And
22 a lot of times people think about physicians as solo
23 actors, but in fact physicians are herd animals in some
24 sense as well. And one of those ways is that they like
25 to feel that they are meeting kind of community

1 standards, and that they're doing what the guys and gals
2 around town are doing as well. And I gather that that
3 actually is even a malpractice standard, you know, that
4 if you say that you're practicing to some community
5 standard.

6 And so if in fact there becomes some community
7 standard that quality measurement will be something that
8 physicians will do through some other, maybe more
9 nefarious, motivation that we could come up with, that I
10 think physicians will begin to see that other people are
11 doing this and that that is in fact important.

12 And let me just close by saying that if you
13 look at surveys of patients and you actually talk
14 individually to patients about what they want from their
15 physicians, they want a lot of different things.

16 But especially for the vast majority of older
17 adults, who have multiple coexisting conditions, who
18 often see many different physicians, they don't want
19 their physicians competing with each other. They want
20 their physicians to be talking to each other. And they
21 want their physicians to be collaborating with other.

22 And in fact, even the notion of second opinions
23 now and third opinions is a very well-established one,
24 especially in some specialties, and patients are always
25 going out and getting second and third opinions. And

1 they want those doctors to actually talk to each other,
2 to think about the patient being the person who's the
3 most important person in this relationship.

4 And so I think that any effort that is
5 undertaken that would be perceived by the public as
6 trying to get physicians to compete with each other I
7 think would undermine a sense of patients about their
8 physicians and trust in them as the person who's
9 important in that relationship.

10 Thank you.

11 DR. BARTLETT: Thanks, Lisa. And since we're
12 in the Boston area, why don't we go to Meredith
13 Rosenthal.

14 DR. ROSENTHAL: Thank you. I'd like to say
15 that since I'm the third discussant after a wonderful
16 series of presentations this morning, I'm not going to
17 pretend that I'm going to say anything that you haven't
18 heard before. But hopefully, I'll sort of organize and
19 amplify some of the points that I think are most salient
20 to this discussion.

21 And I'd also like to mention that in addition
22 to drawing on the reasons from this morning, my comments
23 are in part informed by joint work that I'm doing right
24 now under the AHRQ PO1 grant that I mentioned before with
25 Joe Neuhaus, Tom McGuire, and Richard Frank. So just to

1 cite them a bit here.

2 So first, since Marty and Mark have lifted the
3 responsibility from my shoulders of making the point that
4 economists in a room like this have to make, which is
5 that all levels of quality -- you know, more quality is
6 not always good, I'm going to stick with the positive
7 issue about how competition might be used to increase
8 quality, assuming we wanted to increase quality.

9 And the first thing I'd like to talk about is
10 sort of what kind of quality are we talking about, a
11 point that was raised by a number of speakers this
12 morning. One suggestion was that it's sort of everything
13 that's not quantity, which is probably true. And if you
14 look at the health economics literature or the economics
15 literature more generally, that's certainly -- the case
16 models deal with quality in many different ways.

17 But I'd just like to focus on one particular
18 dichotomy, again, which has been noted already, which is
19 sort of thinking about quality on the service side, and
20 patient experience is probably a better way to describe
21 it, versus some expert judgment of technical quality.

22 So in particular, I think what's really
23 important for the discussion around competition is that
24 some elements of quality are observable to consumers.
25 Some could be made observable to consumers, potentially.

1 And some elements of quality are observable to experts,
2 who again might inform health plans and other payors
3 about these elements of quality. And sort of how
4 observable quality is and to whom is really important for
5 thinking about how competition might or might not
6 increase the quality of care.

7 And so in the economics jargon, we're kind of
8 looking at different models of contracting with
9 observable but not contractible quality, for the most
10 part, and in some cases unobservable. And without
11 getting into some major extra welfarist discussion, I
12 think that most of the people around the table, if not
13 all, would agree that there are some elements of quality
14 that are -- about technical quality that maybe can never
15 be conveyed to consumers.

16 Consumers, even if we try to inform them, will
17 not value these, will not act on these measures of
18 quality. But from a social perspective, these things are
19 still important. So I'm going to carry that notion with
20 me, and again, if you disagree with that, that sort of
21 affects how you should interpret some of what I'm going
22 to say.

23 So now thinking about how quality might be
24 affected by competition using this rough dichotomy of
25 sort of patient observable quality versus quality that's

1 not observable to the patient but again might be
2 observable to payors, we have to think that first
3 competition for patients, to the extent that physicians
4 and physician groups are competing to attract patients,
5 there's no reason to believe that that kind of
6 competition is going to improve the kinds of quality
7 that's not observable to patients, but it may in fact
8 improve service quality.

9 And that may be consistent with the general
10 notion, if you look at the quality chasm and in other
11 places, that most of what we think of as the quality
12 crisis is in the clinical technical quality side and not
13 as much on the patient experience side, although I think
14 serious quality problems have been noted in both areas.

15 There is one caveat, and that is, to the extent
16 that patient experience is sort of correlated with or
17 reflects clinical quality, that may be hopeful that there
18 are going to be some indirect effects of competition on
19 clinical quality. But I'm not too optimistic about that.

20 It seems to me that some of the patient
21 experience has to do with, you know, walking out of the
22 doctor's office with a prescription, for example, which
23 may not reflect good clinical quality and often, I think,
24 may be inversely correlated with good clinical quality.

25 And getting back a little bit to the question

1 of, well, using my dichotomy, maybe everything could be
2 pushed over into the observable segment of this problem,
3 if we could inform consumers better, I think a point that
4 Brent James made earlier is very key there, that there
5 have been a lot of efforts to measure technical quality
6 and report it in such a way that consumers might use it.
7 And these efforts do not provide very encouraging
8 results.

9 Although I think that -- in fact, my view of
10 the literature is a little bit less pessimistic because I
11 don't think a lot of that has been done at the physician
12 level, or there's the surgical evidence and some in
13 hospitals. But not so much about patients choosing
14 primary care physicians or medical groups, where I think
15 that the patients might actually use that information. I
16 think it's an empirical question, clearly. But that
17 seems to be one area that might be important.

18 And just a final note on that. It's not
19 important that all consumers use this information. It's
20 only important that some consumers use this information.
21 I don't compare prices among Whole Foods, Star Market,
22 and Stop 'N Shop, but I know that some lady out there in
23 Watertown is doing that, and therefore that the prices
24 are kept to a reasonable level.

25 So I think a really important question, then,

1 is: Do good report card interventions increase quality
2 competition among physicians and other providers, even if
3 most consumers don't use the report cards?

4 And of course, in this whole discussion about
5 whether patient competition or competition for patients
6 can improve quality, even service quality, patient
7 experience type measures, this really depends on marginal
8 revenue from getting these patients.

9 Now, if, as I think some economists have noted,
10 that we're in this administered price world -- Medicare
11 is a big share of the market and those fees have been
12 held down for a long time -- if you believe those fees
13 make patients unprofitable, then you wouldn't really
14 expect providers to try to compete for those patients to,
15 you know, so to speak, make it up on volume.

16 And this is an argument I heard quite a bit in
17 California in the late 1990s. The medical groups said,
18 you know, so what if you're going to offer me more market
19 share? I'm losing on every enrollee. Why do I want to
20 lose on a larger number of them?

21 So the other half the story, then, is
22 obviously, you know, we're emerging from an era in which
23 competition for patients was really not the focus of sort
24 of how we thought competition might be driving, for
25 example, prices.

1 We really thought that competition for health
2 plan contracts was the way to go, and we didn't really
3 want to see that much competition for patients because of
4 selection and a variety of other concerns. And the
5 notion was that physicians and physician groups would
6 compete to get the contract.

7 And a point that I think Lisa made really well
8 is, will this kind of competition, if it were to happen,
9 improve healthcare quality? Well, that's only if the
10 plans know who's a high quality provider and who isn't a
11 high quality provider. If we don't have good measures,
12 how could that possibly work?

13 And, you know, there's certainly another point
14 that was made earlier: In a selective contracting
15 environment, then this seems more plausible. If we had
16 good quality measures and plans could selectively exclude
17 physicians, in particular we're talking about here, then
18 perhaps that kind of competition could be effective. But
19 selective contracting seems to have declined to a large
20 degree, and certainly for physicians in most markets -- I
21 think maybe Larry and Jon and Gloria can speak to this --
22 in most markets, it seems that all the major plans have
23 to have all the major physicians.

24 And again, the question of if plans knew who is
25 a high quality provider, even if they couldn't

1 selectively contract could they do something to shift
2 volume from some providers to others to take advantage of
3 quality? And that's a potential.

4 And the last important institutional context
5 that was raised a little bit that I think could be a
6 positive for competition for contracts here is the pay-
7 for-performance trend that appears to be increasing to a
8 large degree over the past couple of years.

9 Larry's work suggests that external incentives
10 are very important for adoption of care management
11 processes. If we see a lot more external incentives,
12 trying to make the so-called business case for quality by
13 paying directly on those clinical quality measures, and
14 the sort of major if, if those pay-for-performance
15 mechanisms are designed well with good risk adjustment
16 using the right kinds of measures and trying to avoid
17 multi-tasking problems -- these are a lot of ifs -- then
18 we might see that competition for health plan contracts
19 in a pay-for-performance environment might in fact be
20 quality-enhancing on those sort of technical quality
21 measures, as well as some of these pay-for-performance
22 schemes pay on patient satisfaction, which is something
23 that I'm not clear why they do that if consumers vote
24 with their feet. But perhaps they just don't.

25 So I'd just like to end with a few -- on my

1 research agenda, again, this is sort of easy for the
2 physician competition question. There's no research out
3 there except for, you know, the work that the folks
4 across the table have begun. It seems like trying to
5 figure out what physician markets look like would be
6 really important, geographic markets.

7 As Marty suggested, there's Kessler and
8 McClellan is the gold standard on the hospital side. I
9 think something like that needs to be replicated on the
10 physician side. And I think there's still work to be
11 done in terms of how patients use quality information on
12 different types of physicians for their decisions.

13 I understand why patients don't use quality
14 information on their heart surgeons. They trust their
15 PCP or their cardiologist. But I think that maybe
16 there's a chance that patients will use it to choose a
17 medical group or a primary care provider.

18 And finally, I think the interaction between
19 pay for performance and competition, and the extent to
20 which competition inhibits pay for performance, is a very
21 important area for future research.

22 DR. BARTLETT: Thank you very much, Meredith.

23 Let's take about 10 minutes, if we will. We
24 should be into lunch soon. But I'd like to open the
25 floor for comments on Larry's presentation, comments on

1 the comments, or just anything that people would like to
2 stir into the mix. Any takers? Go ahead, Marty.

3 DR. GAYNOR: This is a question, really, I
4 guess, directed to Larry and his colleagues. You
5 mentioned the importance of external incentives on one
6 hand, and physician practice leverage versus plan
7 leverage on the other.

8 And what I'm wondering about is the impact of
9 leverage on the external incentives. So one might
10 imagine a possibility that practice leverage, physician
11 leverage, would be counterproductive with regard to
12 getting the right kind of incentives in place. I don't
13 know whether there's any evidence on that that you turned
14 up.

15 DR. CASALINO: Yes. I think that's a very good
16 point, and Gloria may want to say something about this
17 especially. But on the physician side -- and I'll let
18 Gloria comment about hospitals -- I think you're right.

19 I think, for example, suppose you wanted to
20 tell physician groups, you know, we're not -- we won't
21 negotiate prices with you any more. We'll put you in
22 tiers A, B, or C, depending on your quality and the price
23 you want to charge. Then you can charge that, but
24 consumers will have to pay more to go see you.

25 Well, a physician group with enough leverage

1 will just say, no. We won't do that. We just want you
2 to -- we like this negotiated model, and just pay us
3 high. And so that hasn't come up much on the physician
4 side yet, although you could see how it would. And I
5 think that's what you're getting at. But Gloria can talk
6 about the hospital side.

7 Just before I turn it over to her, I just want
8 to reiterate the point again which shows that the optimal
9 size for a physician group -- and this could be true for
10 hospitals or health plans as well -- for efficient, high
11 quality operations is probably way, way, way smaller than
12 the optimal size for negotiating with the gorilla on the
13 other side.

14 DR. BAZZOLI: In terms -- on the hospital side,
15 you're absolutely right, Marty. We've been seeing this
16 in the community tracking study. Definitely hospitals
17 that have market power, either because of the system
18 they're in or because of the hospital themselves and
19 their reputation in the market, are definitely affecting
20 terms of trade.

21 They're willing to walk away from certain
22 contracts. They're in some instances negotiating back to
23 percent of charges with some of their smaller health
24 plans. So they are making those decisions, and they're
25 using their power in that way.

1 DR. BARTLETT: Yes. Go ahead, Mark.

2 DR. PAULY: I married a doctor's daughter but I
3 still don't understand physicians. I don't understand
4 the doctor's daughter completely, either.

5 But the puzzle to me is, I think I agree with
6 Peter that from a structural point of view, setting aside
7 the occasional orthopedic group that's cornered the
8 market, structurally it doesn't look like doctors ought
9 to have market power. And yet they seem to behave as if
10 they do. That's sort of the puzzle.

11 They seem to think they negotiate these prices,
12 that there's something to negotiate here, whereas really
13 there shouldn't be, I guess. And at least this is from
14 talking to Grandpa. They seem to feel pressure to give
15 discounts to health plans that cover very small fractions
16 of their patient population.

17 I guess I'm just expressing a fundamental
18 question here: Is this a competitive market or not? I
19 guess I've always called it monopolistic competition,
20 which of course is an oxymoron. But it does have some of
21 the structural features of competition but some of the
22 behavioral features of monopoly. And maybe that's the
23 answer.

24 But I just wonder whether anybody else can shed
25 any light on why physicians seem to behave as if they are

1 not competitors, when structurally it looks like they
2 are.

3 DR. CASALINO: If I can speak up again, I
4 think, Mark, that -- I mean, there are the large -- the
5 large physician groups, and these are really the
6 exceptions. I mean, you saw in the markets I'm showing
7 one, two, three. They believe they have some leverage,
8 okay, although few of them would say they have as much
9 leverage as the largest plan in the markets where there's
10 a large, dominant plan.

11 But most physicians in most markets that I've
12 talked to through the community tracking study -- also
13 probably in about 500 other interviews I've done in the
14 last five or six years -- they don't think they have any
15 leverage at all. They don't negotiate contracts. They
16 just sign them or don't. And basically, throughout the
17 '90s, they signed them because they were afraid they'd be
18 left out.

19 Now in some cases they're saying, well, you
20 know, I have enough patients. I'm just not going to sign
21 this contract with this dinky little health plan that's
22 offering low rates. But very few physicians feel like
23 they can negotiate prices now.

24 And it's actually surprising, from one point of
25 view, that more physicians aren't trying to get into

1 groups where they might be able to negotiate some prices.
2 And there's a whole other talk that could be given about
3 that because you'd think the incentives to do so would be
4 very high.

5 But most physicians are price takers and feel
6 like victims, very much so, very explicitly so, in their
7 relations with health plans.

8 DR. PAULY: Is this because they used to be
9 monopolists and now they're not?

10 DR. CASALINO: That's right. Yes.

11 DR. BARTLETT: Warren?

12 DR. GREENBERG: You know what? Peter, you said
13 something very, very interesting. In your survey of
14 antitrust cases with Bill Sage, you said very few courts
15 have taken up the issue of quality, and it's not been
16 involved in any of the decisions from the courts. And
17 yet we hear the Chairman this morning said he would like
18 to institute more quality in the Commission's decision-
19 making, and perhaps in his antitrust actions.

20 How about this group here? And let me ask you
21 first, Peter, how can we help the Chairman? If all of us
22 agree that quality should be a variable here, how can we
23 help the Chairman or the FTC integrate quality into its
24 equations? Can we do a better job of measuring it?
25 Should we take some of Dr. Romano's measures and

1 incorporate some of them for the chairman? Should we
2 take others? How can we help the FTC in trading off the
3 quality, cost, and price that he seems to want to do?

4 DR. HAMMER: Yes. I mean, there's not a lot of
5 easy answers to some of these questions. One interesting
6 thing would be to have the FTC and the DOJ base their
7 enforcement agency guidelines on evidence. I mean,
8 there's all this talk in medicine about evidence-based
9 medicine. The exercise in producing guidelines is not
10 necessarily one as sensitive to the health services
11 research as it might be. I mean, sort of one obvious one
12 is the extent they're going to start making or changing
13 the guidelines. Let's make that at least based upon
14 empirical, defensible evidence.

15 One interesting illustration of that that's
16 been brought up a couple of times already today is this
17 concept of clinical integration. Should you permit
18 clinical integration to be a sufficient justification to
19 enable then the physicians to negotiate collectively vis-
20 a-vis price? Most people would say that the Department
21 of Justice and FTC give on that issue for fear of
22 litigation that would allow unions. All right? So it's
23 a political move in which we'll give you greater leeway
24 within the guidelines on these dimensions in order to
25 counterbalance the possibility of possible legislative

1 action in the area, not on a careful assessment of what
2 would the best evidence be as to the need for extent of
3 clinical integration that would be appropriate; and
4 therefore to define the guideline based upon what would
5 further quality, and free up physicians to motivate on
6 that end. And whether that would then lead to the same
7 type of exception or not is an interesting question.

8 I know later they're going to be talking about
9 dissemination in some of these issues as well. How do
10 you just get people better information? You do want
11 policy-makers making decisions that have implications on
12 health care quality and structure to have the
13 information, and part of it is to have better answers.

14 The other sort of thing I would just simply
15 say, for courts, at least, they have to be simple
16 answers. And you have to also appreciate the degree to
17 which policy-makers and courts need to be operating on
18 heuristics that are manageable. And so simplification
19 and easy answers are great, and these are complicated
20 problems, and therefore we see how far we have to go.

21 DR. BARTLETT: I just want to emphasize that
22 Warren's question is, I think, a very good one. I liked
23 your response as well. And my hope is -- I think
24 everybody's hope is -- when we start talking about a
25 future research agenda, and we are going to start that

1 session by hearing from FTC representatives, that we get
2 a sense of what are -- how they would sort of identify
3 their research needs, what questions would be -- if they
4 were addressed would be most helpful in terms of these
5 deliberations.

6 So I think that's a nice setup, Warren, in
7 terms of your question, in terms of what we can do now.
8 But what's the -- how do we add to the body of research?
9 So it's more useful downstream.

10 Any other commenters, takers on anything to be
11 stirred into the mix? Arnie?

12 DR. MILSTEIN: I just want to walk through sort
13 of a line of reasoning that I'm sort of pulling out of
14 these discussions and trying to bring it back to what
15 large purchasers and consumer organizations are trying to
16 make happen in local markets in order to improve quality
17 and efficiency.

18 And the logic train goes something like this,
19 that if the IOM is right, quality failure in the United
20 States is severe and it's mostly invisible -- it isn't
21 like, you know -- we don't have, you know, mobs circling
22 hospitals over bad quality even though the quality is
23 bad -- so the quality failure is severe and invisible.

24 I also believe, and I don't think -- I mean,
25 I'd love to hear a dissenting point of view -- that

1 quality is not going to massively improve without a
2 business case for re-engineering at the provider level.
3 I mean, I take Lisa's point about professionalism, but
4 we've had a lot of years for professionalism to solve
5 this problem and it doesn't seem to be doing too well.

6 Third is that this business case at the
7 provider level is going to require measurement and either
8 volume and/or price incentives.

9 And last, I think this really gets to the
10 research question that I still remain focused on:
11 Provider measurement and incentives, I believe -- at
12 least many in my situation believe -- is more
13 successfully opposed in more concentrated health care
14 markets.

15 It's only in concentrated health care markets
16 that when plans step forward and announce that they are
17 going to create tiers among doctors or among hospitals,
18 that provider -- large provider organizations stand up
19 and say to the health plans, who ultimately are their
20 revenue sources, I don't think so. We're not going to
21 let you. If you do, we won't be in your networks, and
22 you try to sell health insurance product without us in
23 the network.

24 That is our empirical observation. We'd love
25 to see, you know, some research interest in whether

1 that's true, that in more concentrated markets, providers
2 are more successful in opposing quality measurement and
3 differentiation in terms of reward structure.

4 DR. CASALINO: May I just ask Arnie a question?
5 Arnie, how much, in your experience, have you seen that
6 come from hospitals, and how much from physician groups?

7 DR. MILSTEIN: I think more often from
8 hospitals, but I've seen it happen among physician groups
9 in geographies where a big, in this case integrated
10 multi-specialty group really dominates a county.

11 And so you cannot get away with a commercial
12 insurance product without having a given medical group in
13 your network and the medical group says, no, I think
14 we're happy to ride on our reputation rather than
15 actually be measured and run the risk that our reputation
16 might not be supported.

17 DR. ROMANO: Yes. I wanted to pick up on
18 Arnie's point, and perhaps address Mark's point a little
19 bit as well, which is, just by example, this issue of
20 market power and leverage seems to work in some very
21 interesting ways. And I'm not an economist so I'm just
22 kind of a spectator as a physician on the outside, sort
23 of looking at how this works.

24 But my own health system, the UC Davis Health
25 System, is clearly the high cost health care provider in

1 the Sacramento market. And yet year after year, UC Davis
2 Health System has been able to resist contracts in which
3 tiering would be included, as well as exclusion from
4 networks.

5 There have been a number of brinkmanship kind
6 of cases where they've been the -- you know, full-page
7 ads in the newspapers and so forth. But in the end, to
8 be honest, almost every time the health plans have caved.
9 So why have they caved? UC Davis Health System only
10 controls about 10 to 15 percent of the market in the
11 Sacramento area.

12 But I would suggest there are a couple of
13 reasons why the health plans have caved. One is that UC
14 Davis Health System is the academic medical center. It
15 has the brand name. So for a health plan to go out on
16 the market and say, well, we're going to offer you
17 everybody but we're not going to offer you the academic
18 system in the market, well, that kind of looks bad. And
19 I think that affects their ability to compete and offer
20 their products to employers in the marketplace.

21 The other thing is that we have an interesting
22 system where UC Davis Health System has a monopoly in one
23 particular service, which is trauma care. And that gives
24 our system a tremendous amount of leverage because they
25 can go to all the health plans and say, well, if you

1 don't want to deal with us, that's fine. We'll pay you
2 full charges any time any of your patients gets into a
3 crash on the highway.

4 And we're in a very nice situation, and we have
5 these major highways that go through Sacramento. So any
6 time anybody wants to go through the central valley or go
7 up to the mountains and Lake Tahoe, they have to go
8 through Sacramento.

9 So it's an incredible deal. I hate to reveal
10 our CEO's market strategy. But basically, they are able
11 to use their monopoly in one particular service to
12 exercise leverage over a large number of services where
13 you wouldn't think that they would have market power
14 based on the structural characteristics.

15 So it's just very interesting to see these
16 examples and how things play out in the market.

17 DR. BARTLETT: Arnie, just to play out your
18 point, it seems to me that Patrick's -- when you talked
19 about the UC Davis, that's a little bit different. It
20 might be exactly the same. It might be a different
21 attribute of a marketplace that is very concentrated.
22 You're talking about sort of the brand name player not
23 wanting to play. So that's a slight variation on what
24 you were talking about.

25 DR. MILSTEIN: Right. I mean, I think a

1 situation in which you don't, as a health plan or a
2 purchaser, play along with a hospital's notion as to what
3 they think is fair measurement or fair competition, that
4 that's fine. But you can then pay, you know,
5 unrestricted retail, is what has been termed, you know,
6 an offer you can't refuse. I mean, that is -- you know,
7 it's impossible to deal with.

8 DR. BARTLETT: And I know Larry talked a bit
9 about incentives in your study. But I think that the
10 extension of your -- the research that you are proposing
11 would be in fact to then look at whether these
12 strategies, the incentives, the tiering, all this, do
13 indeed result in higher levels of quality.

14 DR. MILSTEIN: Yes. And the only thing I would
15 add about Patrick's example is -- it really ties in to
16 Warren's comment -- is that we perpetuate this
17 equilibrium where we're nowhere near that tradeoff curve
18 that Mark described in his presentation, not even close.

19 We perpetuate it partly by allowing, you know,
20 brand names to continue to make a difference when in fact
21 underlying the brand names is likely substantial -- I
22 mean, actually we know, based on health services
23 research, that there may not be anything as a great
24 hospital.

25 There can be great service lines within some

1 hospitals and not others. But the probability of there
2 being a great hospital that warrants a great brand name,
3 based on the current evidence, is close to zero.

4 So we have this -- the current equilibrium sort
5 of sustained by unwarranted, you know, brand names that
6 are a by-product of consumer ignorance. But to offset
7 the consumer ignorance, you would need provider
8 cooperation to begin collecting better performance
9 measures and publicly reporting them. But the current
10 equilibrium allows providers to resist participation in
11 such performance reporting and incentive programs.

12 DR. BARTLETT: Let's take a couple more
13 comments on this, and we'll pick up this conversation on
14 the far side of lunch. Let's go to Brent, then Larry.

15 DR. JAMES: I just have a question for Arnie.
16 Arnie, that mechanism that you just described, do you
17 think you could work it the other direction, where you'd
18 go into a market and find one provider, even just a
19 medium-sized provider, who was willing to share measures,
20 and use it the other way? Have you seen that or is that
21 a possibility? What do you think about that?

22 DR. MILSTEIN: I think it is a possibility. I
23 mean, there is, you know, such a thing as, you know,
24 quality-progressive providers, providers who are willing
25 to report either, you know, based on professionalism or

1 out of fear that if your behavior is too bad, competition
2 might get, you know, stirred up and, you know, outside
3 providers might be brought in by angry customers,
4 although angry customers have been few and far between in
5 health care so far.

6 DR. JAMES: That can force the resisters to the
7 data table, is what you're saying?

8 DR. MILSTEIN: Yes.

9 DR. BARTLETT: Larry, we'll make yours the
10 last, then we'll break for lunch. Larry?

11 DR. CASALINO: Yes. I mean, I think Arnie's
12 remarks really show how far we really are from being able
13 to produce a system where there's competition on quality
14 or even incentives to improve it. You need -- because --
15 and how powerless antitrust is to really do something
16 about this, because by and large the hospitals that
17 Arnie's thinking of, and certainly UC Davis, would not by
18 any stretch of the imagination be in violation of
19 antitrust law, even of kind of a populist kind of
20 antitrust law, which we don't have now. Yet they have
21 the power to resist being made to negotiate on quality.

22 You know, part of the reason they have that
23 power is the fragmentation of purchasers. And, you know,
24 the idea of sponsors has disappeared since the failure of
25 the Clinton health plan. There are groups like CalPERS

1 or PBGH or BCEG in Minneapolis that try to function as
2 sponsors, and they actually, I think, not by accident
3 have had, in my opinion, the most success in actually
4 creating some moves to increase quality.

5 But by and large, just as I would say no
6 medical groups, no unit of analysis, no capability to
7 improve quality, no competition on quality, I actually
8 also believe -- and this is not a popular topic these
9 days; no one really talks about it -- no sponsors, no
10 competition on quality, basically.

11 Arnie does the best he can with what he has,
12 and he has the best there is. But in fact, we don't
13 really have, on the sponsor side, someone who can really
14 make there be competition on quality.

15 DR. BARTLETT: Thank you to Larry and to our
16 commentators who have started a very good discussion.
17 We'll come back -- actually, we're scheduled to start up
18 at 20 after 1:00, and I would like to keep us on
19 schedule. So lunch is out here. Sit wherever you'd
20 like. Talk with whomever you'd like. And we'll start it
21 promptly at 1:20.

22 (Whereupon, at 12:50 p.m., a luncheon recess
23 was taken.)

24

25

1 A F T E R N O O N S E S S I O N

2 DR. BARTLETT: Much the way we did it in this
3 last session, we want to move to share with you and
4 discuss with you several new studies focused on hospital
5 competition and quality.

6 We've got three studies to present. We'll do
7 them in sequence, each of the presenters taking up to 20
8 minutes. We will follow that with commentaries by Brent
9 James, Warren Greenberg, and Bill Encinosa.

10 And our first presentation will be by Herb Wong
11 from AHRQ. We'll have the presentations from up here,
12 and then we'll go to the -- the commenters can stay at
13 their seats.

14 DR. WONG: Thank you very much. The title of
15 my presentation today is the effects of hospital
16 consolidation on the quality of care. And this is
17 actually part of a larger research effort that I'm
18 undertaking at AHRQ that looks at hospital competition,
19 consolidation, and quality. This is joint work with Ryan
20 Mutter, and I want to emphasize that this is very
21 preliminary work, that this is very much a work in
22 progress. We recognize that there is still a significant
23 amount of work that we need to perform for this.

24 And with that caveat, let me provide you with
25 some background information on this particular study.

1 This is actually something that I'd been thinking about
2 for some time now. And I guess when Warren Greenberg,
3 who ironically is a discussant on this panel, was at the
4 agency as a visiting scholar, one of the questions that
5 he was always fond of asking was how would hospital
6 mergers impact hospital quality?

7 And from a social welfare point of view, this
8 was an intriguing question because what this meant was
9 that hospital consolidation could be in fact welfare-
10 enhancing if quality increased sufficiently to offset any
11 negative effects of an increase in price, that the
12 combination of quality and price was in fact socially
13 preferred to the one that was currently existing.

14 Now, the literature in this particular area is
15 actually quite limited. The only published study that I
16 know of is a study by Hamilton and Ho, and they directly
17 look at the impact of mergers on hospital quality.

18 Now, there are a strain of literature that
19 basically addresses this issue, but very indirectly.
20 Basically, the studies that Marty mentioned earlier today
21 that looked at competition and quality gets to this
22 issue. After all, a hospital consolidation leads to
23 lower competition and therefore some impact on quality.

24 But I think that looking at this literature is
25 really incomplete, that there are other literatures out

1 there that might add to this overall discussion about how
2 hospital consolidation could impact quality. For
3 example, if you have two institutions that are merging
4 together and that their total number of admissions are
5 basically the same before and after merger, does the
6 literature on volume outcomes contribute to this
7 particular discussion?

8 So in this particular slide, what I wanted to
9 do is try to frame the question a little bit about the
10 different competing hypotheses about how hospital
11 consolidation could in fact impact hospital quality.
12 Now, one of the things I want to highlight here is that
13 this list is not all-inclusive. What I'm trying to
14 demonstrate here is that hospital consolidation could
15 have different impacts on different elements of quality
16 depending on the hypothesis that you're looking at.

17 I think that the typical hypothesis out there
18 is that the hospital market is characterized by quality
19 competition, and that if there is a hospital
20 consolidation of sorts, this would mean less competition,
21 less quality competition, and therefore less quality in
22 the market.

23 Now, a competing hypothesis out there is a
24 recent one by Mukamel, et al., in a 2002 publication,
25 where they argued that the relationship between

1 competition and quality may be in fact inverse. And
2 their argument is that it is very difficult for consumers
3 to in fact observe clinical quality.

4 And what happens is that hospitals really
5 compete based on what they called hotel services, that
6 those are the amenities out there such as, you know, is
7 the room nicely painted or furnished, things of that
8 nature that doesn't really get to clinical quality.

9 So if the market is in fact characterized by
10 hotel services competition, what that implies for a
11 hospital on consolidation is that you have less
12 competition in terms of hotel services, but hospitals
13 would respond by increasing their clinical services and
14 therefore increase clinical quality because now they are
15 spending less resources focusing on hotel services and
16 more on clinical services and clinical quality.

17 Another argument of a competing hypothesis here
18 is hospital consolidation leads to greater efficiency
19 through the volume/outcomes relationship. So quality can
20 in fact increase under that scenario.

21 And finally, I threw up here one other
22 possibility, and that is, is it possible that quality is
23 in fact not a choice variable for the hospital? Under
24 this scenario, then, what we should observe is that
25 quality would remain the same before and after

1 consolidation.

2 So the particular research questions that I'm
3 going to try to address in my study are the following:
4 Do hospitals involved in consolidation experience changes
5 in hospital quality after consolidation? Are changes in
6 hospital quality different between acquired and
7 purchasing hospitals? And does hospital consolidation
8 affect the hospital quality in the overall market area?

9 Some of the contributions I think that this
10 particular study will try to make to the literature are
11 the following. The first thing I want to emphasize is
12 that this particular study is not looking to prove or
13 disprove any of those competing hypotheses I listed.
14 This is a study that looks at the reduced form effects of
15 consolidation, that is, even if you assume that there are
16 these competing hypotheses out there and they're all to
17 some extent valid, what I'm trying to do is to take a
18 look at a situation where a consolidation happens, and
19 all the effects basically works its way out and we get to
20 a new equilibrium. And those are the effects that I try
21 to focus on.

22 A second contribution I think that this study
23 makes to the existing literature is the expansion of
24 different quality measures, that basically the current
25 literature has a tendency to focus on mortality rates as

1 a competition -- or as a quality measure.

2 There are a few exceptions. I think that there
3 are others that have looked at readmissions and things of
4 that nature. But the mortality rates are basically used
5 as a proxy for hospital quality. And so this study
6 expands beyond that particular world.

7 Another contribution is the geographic
8 representation of this particular study. In the existing
9 studies, there's a tendency to focus in on a particular
10 state or two or three states. In this study, I look at
11 consolidation occurring in eight states.

12 Another shortcoming or limitation of existing
13 studies is they're sometimes a method where they only
14 look at particular payor types, such as Medicaid
15 patients. In my study, I'm going to take a look at all
16 payors at the hospital level.

17 And finally, this particular study looks at
18 more recent data. Now, let me just say that the existing
19 studies have different elements of these features.
20 However, I think that the study that I'm trying to employ
21 here is to try to make it universal, that we capture more
22 of these elements than some of the other studies.

23 So here's the empirical strategy that I'm going
24 to employ. First of all, I'm going to have -- my
25 analysis is basically at the hospital level. And this I

1 put in parentheses here as an initial investigation.
2 Other studies have basically focused on the patient level
3 analysis, and that is something that I'll consider in the
4 future.

5 The second element in this empirical strategy
6 is to create proxy measures for hospital quality. And
7 then what I want to do is to empirically estimate the
8 average hospital quality of the consolidating hospitals
9 before consolidation and after consolidation. And what I
10 want to do is to compare what the relative averages are
11 between these two periods.

12 So here's the basic empirical specification.
13 And I'll emphasize the word "basic" because I kind of
14 recognize that there will probably be modifications to
15 this specification to address a number of empirical
16 issues.

17 But in general, what I want to do is to have
18 independent -- my dependent variable is some measure of
19 quality, and regress that with a dummy variable that
20 characterizes whether or not the hospital is involved in
21 consolidation; a set of hospital characteristics and
22 socioeconomic characteristics to capture potential
23 differences in case mix severity; health status of the
24 community; and then a dummy variable to control for state
25 level effects.

1 The strategy here is to estimate the same
2 equation before and after consolidation. The parameter
3 of interest here is basically the betas. The beta is
4 going to basically tell us that relative to the hospitals
5 in my sample, how are consolidating hospitals performing
6 in terms of quality? And what I want to do is to
7 estimate these two equations and then compare and see
8 whether or not the betas are different across the two
9 periods.

10 The data that I'll be using for this particular
11 study: First of all, I need to determine what hospital
12 consolidations are. And we focus in on 1999 hospital
13 consolidations. We limit our studies to only community
14 hospitals. We look at mergers and acquisitions that are
15 transpiring in 1999.

16 We use four data sources to hone in to verify
17 our information. We use Modern Healthcare. Modern
18 Healthcare annually updates or provides a list of
19 consolidations that occurs during the previous year. We
20 verify this information with a report put out by Irvin
21 Levin & Associates. We use the AHA Annual Survey of
22 Hospitals to further hone in our set of consolidations.
23 And finally, for situations where it is uncertain, we
24 actually go onto the hospital websites and see whether or
25 not we can pull off additional information from there.

1 The proxy measures for hospital qualities: We
2 use the AHRQ patient safety indicators. We use all 20 of
3 them. And in general, as Patrick had mentioned in his
4 earlier slides, that these indicators basically captures
5 adverse events and complications that are following
6 surgery procedures and childbirth.

7 We take this software or these different
8 measures and we apply it to the Healthcare Costs and
9 Utilization Project state inpatient databases for 1997
10 and 2001. Again, we're doing a two-year post- and two-
11 year pre-study. These databases that we use are
12 basically from these eight states that we listed here.
13 And from that, we're able to calculate individual
14 hospital rates for each of the hospitals in all of these
15 states.

16 Our hospital characteristics come from the AHA
17 Annual Survey of Hospitals. We include as hospital
18 characteristics for-profit and teaching status. From the
19 area of resource file, as a basic proxy for health status
20 of the community, we use per capita income, unemployment,
21 percent black, percent college educated.

22 Here are some of the characteristics of our
23 analytical file. There are 22 consolidations in 1999 in
24 the eight states that I had listed. This involves 29
25 hospitals being acquired, 46 purchases. The number of

1 hospitals in our 1997 data set is 1436, and for our 2001
2 data set is 1357.

3 Our estimation strategy: We estimate the
4 empirical equation that we had that I mentioned earlier
5 basically using OLS. We also employed a number of
6 different other estimation techniques to kind of hone in
7 to check for robustness.

8 And before I show you some of our preliminary
9 results, I just want to remind you what we're -- the test
10 statistic that we're interested in. We're looking at the
11 difference between the betas across these two periods.
12 Beta one is basically the parameter estimate in 1997, and
13 beta two is the parameter estimate in the year 2001.

14 Now, because these are basically rates of
15 adverse event, a higher rate is bad. A lower rate is
16 good. And if the difference between these two is greater
17 than zero, that implies the quality had increased during
18 this time frame. If it is less than zero, that implies
19 that it has deteriorated. And of course, if the
20 parameter estimate is zero, that means -- that implies
21 that there's no change.

22 So what are some of our preliminary results?
23 Of the 20 QIs that we estimated the equation on, only two
24 of them came in statistically significant. And the two
25 measures are basically indicated here. And in both

1 cases, we discovered that there was an increase in
2 quality after consolidation.

3 When we ran separate models where we looked at
4 whether or not -- what is driving this results, we
5 discovered that in one case, it was driven by purchaser
6 quality increasing, and the other, the acquirer quality
7 increasing.

8 Now, one of the things I don't have up here in
9 terms of my preliminary results is that basically all the
10 other equations where they were not statistically
11 significant. In fact, there were about three or four of
12 them that were getting close to the border of being
13 significant at the 10 percent level, but didn't quite
14 make it. And it turns out that for those, they basically
15 had the same sign.

16 So let me emphasize the point -- and I can't
17 emphasize this enough -- is that these are preliminary
18 results. We recognize that there are a broad -- we
19 broadly recognize that there are a number of empirical
20 issues that still remains for us to resolve.

21 Basically, we recognize that there might be
22 some situation where there is some biases that are
23 introduced into our equations. We're looking at
24 different techniques to kind of address that. But this
25 is an area that we'll explore in the future.

1 Once we completed that aspect of it, I think
2 that there are a number of other directions that this
3 research is going to move into. We kind of emphasized or
4 looked at preliminarily what's happening with the
5 acquired and the purchasers, but what's happening overall
6 in the market? Are there basically some spillover
7 effects after consolidation?

8 One of the things that Mark Pauly had mentioned
9 in his remarks was, well, what about different types of
10 consolidation? That is, does it really matter if a firm
11 is part of a multi-hospital system? So one of the things
12 that we want to try to explore is the different types of
13 consolidation that is happening, that is, systems buying
14 independent hospitals or independent hospitals merging
15 together, and whether or not those different aspects in
16 fact matter in our investigation.

17 Another way to kind of head into in terms of
18 this research is to look at the mortality measures.
19 Basically, the RQI mortality measure can see whether or
20 not that there are different dimensions of quality that's
21 going to be impacted differently by consolidation.

22 And other areas that we'll explore are
23 basically to look at whether or not we need to go to a
24 patient-level analysis. As I mentioned before, we began
25 with a hospital-level analysis, but a lot of the

1 literature out there basically use a patient level
2 analysis. And I think that there are pros and cons for
3 both methods. One of the advantages of going to a
4 patient level analysis is that you can better control for
5 severity at the patient level case.

6 So with that --

7 DR. BARTLETT: Thank you. Let's now turn to
8 Robert Town to share with us work that he has done on the
9 volume-outcome relationship.

10 DR. TOWN: It's a pleasure to be here. I'll
11 try not to move around. I tend to pace when I talk, but
12 I realize that I leave the microphone behind, and that's
13 probably a bad idea.

14 So the title of the paper is Causality and the
15 Volume/Outcome Relationship. And this is joint work with
16 Gautam Gowrisankaran, who is the wind -- he keeps
17 traveling around; he's at Yale now and will be at Olin
18 School come the fall -- Vivian Ho at the University of
19 Alabama, and myself. And to continue the theme of
20 preliminary results, these results are very, very
21 preliminary, and I'll just leave it at that.

22 So I think the issue has been raised earlier
23 today, and its importance has been highlighted in
24 previous discussions. But I'll reiterate that
25 importance. This is a -- the relationship between volume

1 and outcomes for various procedures has a relatively long
2 history in health services research.

3 There's a recent review by Helms which finds
4 125 articles on this relationship between 1980 and 2000.
5 That's a lot. And the -- of course, Hal Left was
6 probably the one who first populized this idea with his
7 paper in 1971, with several co-authors. I'll leave them
8 out. And 70 percent of these studies find that there is
9 a positive correlation between outcomes and volume. That
10 is, the more you do, the better the outcomes.

11 And here's a typical -- this is actually from
12 the data we used in our analysis. For CABG in
13 California, and these are just risk-adjusted mortality
14 rates on the Y axis and actual volume by the hospital's
15 annual volume on the X axis, and you can see there -- and
16 the red line is kind of the fitted values of quadratic
17 regression, or actually cubic. It turns on the
18 mortality. And you can see that there's actually a
19 pretty significant decreasing relationship: The more you
20 do, the better you seem to be at it.

21 And there are two causal mechanisms that have
22 been previously mentioned here that might explain this
23 correlation. One is that practice makes perfect, or
24 learning by doing, as economists like call it. And Hal
25 Left proposed that in his '79 paper, along with his co-

1 authors. And he's actually perfectly hedged here on the
2 hypothesis. He also is the one who proposed, with co-
3 authors, the selective referral hypothesis.

4 The selective referral hypothesis essentially
5 states that the reason you observe this correlation is
6 that people like to go to good hospitals, or at least
7 their physician agents like to send them to good
8 hospitals, so that there is not a causal relationship
9 between that drug goes from volume to outcomes, but the
10 causal mechanism goes from outcomes to volume, as I just
11 said here. So learning by doing implies that volume
12 causes outcomes, and selective referral implies that
13 outcomes cause volume.

14 Now, the policy implications of these two
15 hypotheses are very different. And actually, the
16 magnitudes of many of the studies suggest that if
17 learning by doing is the right explanation of the data,
18 then we really should be encouraging a lot of hospital
19 mergers because the effects are dramatic often. However,
20 if selective referral is the right explanation of the
21 day, then there's no drive, at least on this account, to
22 regionalize procedures.

23 However, you know, I think both ideas have been
24 around for quite some time. But the literature really
25 assumes, either explicitly or implicitly, that the

1 learning by doing hypothesis is the right one. And you
2 see it in, you know, all the abstracts from these
3 studies.

4 They say, well, you know, what's the policy
5 implications? And they always say, well, suggest that we
6 should encourage more people to go to higher volume
7 hospitals, which is implicitly saying that there's a
8 relationship, a causal relationship, between volume and
9 outcome.

10 Because volume is actually -- as you can see
11 from the previous graph, it's a pretty poor signal of
12 quality. And if that's what you want to use as your
13 signal of quality, it's not a very good one. Certainly
14 we could come up with better ones. So that doesn't seem
15 to be a very good motivator to drive people to go to high
16 volume hospitals.

17 And also, in the Leapfrog Group, they're
18 explicitly suggesting you go to high volume hospitals.
19 And again, it's not a very good quality indicator if
20 that's what you're using. So it suggests that they
21 believe the learning by doing hypothesis.

22 So what we're going to do in the study is allow
23 for the mortality/volume relationship, estimate the
24 mortality/ volume relationship, allowing for the
25 possibility that volume is endogenous. In economic-

1 speak, that means that we're allowing for the causal
2 relationship to go from mortality to volume.

3 So we're going to study two procedures.
4 They're a bit different, and from different data sets:
5 the Whipple procedure, which is a pretty complicated
6 pancreatic cancer surgery, which can take eight to nine
7 hours to perform, and CABG, which I think most of us
8 know.

9 So in our estimates, if volume is endogenous --
10 and again, this is in economist-speak -- that implies
11 selective referral. We're going to use linear
12 instrumental variables and maximum likelihood analog of
13 instrumental variables. Actually, it's simulated maximum
14 likelihood.

15 So our findings, which again are very
16 tentative -- and I was talking to Bill and Marty earlier,
17 and they're doing something very similar, and they're
18 getting some different results using very similar data.
19 So take the results with some caution.

20 We find that actually, for the Whipple, the
21 learning by doing hypothesis seems to be right. It seems
22 to be explaining the data. However, for CABG, volume
23 appears to be endogenous, and that selective referral
24 seems to be implied by the coefficients.

25 So here's our empirical framework.

1 DR. BARTLETT: Do you have a hypothesis about
2 why those two would be different?

3 DR. TOWN: Yes. I'll get to that. And the
4 answer is, they're very different volumes initially.

5 So our mortality equation is -- here's our
6 latent mortality. So we only observe mortality as 1.0,
7 but there's a latent mortality. And this is an
8 unobservable hospital characteristic that we don't
9 observe. This is the quantity of procedures at the
10 hospital. And these are going to be risk adjusters.

11 Our second equation is going to be hospital
12 volume. I'm going to say that hospital volume is going
13 to be a function of predicted hospital volume, which we
14 will estimate. So if selective referral is right, this
15 omega is going to be correlated with Q. And that's why
16 you're going to have biased coefficients if you're going
17 to interpret this as a causal relationship.

18 So we're going to estimate -- as I mentioned
19 before, we're going to estimate this using simulated
20 maximum likelihood, which allows for the mortality to be
21 binary. So we're going to estimate essentially a probit
22 model but allows for the endogenating. And we have to
23 use simulated maximum likelihood because it's kind of
24 complicated, like tricky.

25 So our instrument, which is the QHATs from the

1 previous equation, is going to be predicted volume. And
2 predicted volume just is going to come from the
3 multinomial logit hospital choice model. And that's
4 going to be a -- and in that choice model, we're going to
5 include distance, functions of distance, and patient
6 characteristics.

7 And so we think that volume should be a good
8 instrument for actual volume. Now, what makes it a good
9 instrument? One, it will be highly correlated with
10 actual volume, which almost by definition it should be.
11 And also, it will be uncorrelated with the omega of the
12 previous slide.

13 Now, that won't be the case, and we can tell
14 stories of why that might be the case, that is, that
15 omega may in fact be correlated with predicted volume,
16 and when those would be patients tend to live near good
17 hospitals or bad hospitals; good hospitals tend to locate
18 next to each other. If those things were true, that
19 would suggest our instrument is maybe not so good.

20 So our data comes from two spots. The Whipple
21 data comes from Florida. And our outcome, actually, for
22 both cases is going to be in-hospital mortality. And the
23 reason we use in-hospital mortality is -- well, it's easy
24 to observe; and two, it's the primary outcome in almost
25 all the volume/outcome relationships. And so it would

1 just be consistent with the previous literature. We're
2 going to follow it, although there's obviously problems
3 within hospital mortality.

4 For Whipple, the important difference here
5 besides the degree of difficulty of these two procedures
6 is the number of procedures in aggregate are very
7 different between the two. From over ten years of data,
8 we have 3,000 Whipple procedures performed in Florida,
9 where in California over a much shorter time frame, we
10 have 122,000 CABGs performed.

11 So here's some summary stats. The mortality --
12 this is in-hospital mortality -- for the Whipple is about
13 10 percent, and for CABG it's about 4 percent. The
14 volume is very different between these two.

15 From the Whipple, a typical hospital is doing
16 three to four a year, where for the CABG, it's quite a
17 bit more. This is the distance to the hospitals. They
18 travel roughly 20 miles. And similar hospital sizes are
19 pretty similar. Teaching are also similar.

20 So here's the parameters from the multinomial
21 trace model, which I won't go over but, you know, the
22 parameters are basically what you think. The further
23 away the hospital is, the less like you are to go to it.
24 The bigger the hospital is, the more likely you are to go
25 to it.

1 So here -- this is for Whipple. This is -- I'm
2 going to present kind of the graphs, the instrumental
3 variable version graphically. So this is actual volume,
4 and this is the risk adjusted mortality for each hospital
5 here. And again, there's -- and the red line is the
6 fitted values. And you get sort of the standard
7 volume/outcome relationship there.

8 In this graph, this is the instrumental
9 variable version of that. We have -- the X axis now is
10 the predicted volume instead of actual volume. So here
11 this predicted volume should be unrelated to the
12 unobserved quality, and thus would be a good instrument.

13 And here we still -- and the sort of
14 volume/outcome relationship is still preserved, although
15 the curvature is much more severe. It's adjusting that
16 learning by doing hypothesis is the right one.

17 Now, here's the statistical version of that.
18 Here's the -- this is just the maximum likelihood probit,
19 so not correcting for endogenating. And you get a
20 negative coefficient here and some curvature. Under the
21 maximum simulated likelihood, you have -- where we're
22 treating volume as endogenous, you get the same, you
23 know, sign of coefficient. It's just the severity -- the
24 curvature is much more severe.

25 Also, these correlations down here are the

1 correlations between the error term across equations, and
2 those are insignificant, again suggesting that learning
3 by doing is the right explanation of the data.

4 So this is the graph I showed before for CABG.
5 And again, that's just mean -- actual volume on
6 mortality. So here's the IV version off that. So this
7 is the predicted volume projected on actual volume and
8 mortality. And basically, it's just a cloud. So the
9 relationship between mortality and volume goes away here,
10 suggesting that it is selective referral for CABG that's
11 driving those relationships.

12 We haven't done the maximum simulated
13 likelihood for CABG because the number of observations is
14 a lot higher than Whipple, and this is actually a
15 computationally intensive program. So we're moving to a
16 different software to be able to estimate it. But you
17 can do it by linear IV.

18 And here we see that we get negative
19 coefficient on actual volume, and these are some of our
20 risk adjusters. We actually have a much bigger list of
21 them than the ones I put here. And here's the IV
22 estimates. And the coefficient size goes down
23 significantly and standard error goes up quite a bit,
24 again suggesting that it is selective referral for CABG.

25 So, now, those results don't say that learning

1 by doing is not necessarily important for CABG. It's
2 just that the volumes that we observe most hospitals
3 operating at, they've gone past that threshold so that,
4 at least revealed in the data, learning by doing wouldn't
5 be important.

6 So here are our conclusions. And the first one
7 is, you know, kind of the thing you learn in your very
8 first stats class, that correlation is not causation.
9 And I think that's something that's been a little bit
10 forgotten in the health services research on this topic.
11 And I think it's important to note.

12 But for the Whipple, it is. Volume does seem
13 to cause outcomes. And this is primarily, at least in
14 our view, it's a very complicated procedure and it's very
15 rarely performed. For CABG, we find the causality works
16 the other way, that outcomes are driving volume. CABG is
17 also a complicated procedure, but it's much more
18 frequently performed.

19 So in our last bullet here is that our results,
20 I think, do drive -- call into question a drive to
21 regionalize, and we should rethink about -- at least
22 begin to think about what is really behind these
23 relationships that we're observing, and that the causal
24 mechanisms really matter for policy. And that's where
25 the, you know, rubber should meet the road on this issue.

1 And I'll stop there.

2 DR. BARTLETT: Thank you very much, Robert.

3 Now let's turn to Dan Kessler to share his work
4 looking at competition and its impact on utilization.

5 DR. KESSLER: Thank you very much. Thank you
6 for having me here today. I'm going to talk about the
7 effects of hospital competition on variation in
8 utilization and quality of care. This is joint work with
9 Jeff Geppert, who's a colleague of mine at Stanford
10 University.

11 And also, this is -- I wouldn't say joint work,
12 but a lot of people in this room have contributed
13 substantially to the work on this paper. Just to go
14 around the room and name a few, Bill Sage, Bill Vogt,
15 Mike Vita, Paul Volper, and David Hyman, through many
16 conversations, have helped Jeff and me make this into a
17 much, much better paper.

18 And so I'd like to take this opportunity to say
19 that they're responsible for any errors or misstatements
20 that we might make in connection with this, not Jeff and
21 me. If you have any trouble, go talk with them.

22 Also, I would like to thank the Federal Trade
23 Commission and the National Institutes on Aging for
24 generous support. But the institutions are not
25 responsible for anything that we might say.

1 Well, this paper is about one way that
2 competition affects quality, by affecting variations in
3 care across patients. And just by way of introduction,
4 everybody in this room is familiar with the Dartmouth
5 Atlas studies, which find tremendous variations in care
6 across geographic areas, much of which is likely
7 wasteful, tremendous variations in care not correlated
8 with any differences across areas and outcomes.

9 Now, economic theory suggests that the
10 competitiveness of hospital markets might be part of the
11 cause of this. They might lead to more variation or less
12 variation. The theory is indeterminate. And as well,
13 the theory is indeterminate for the consequences for
14 costs and quality of competition.

15 So for that reason, identifying empirically how
16 competition affects variation and its consequences is
17 important for antitrust policy. And that's really what
18 we're going to be about today.

19 So what I'm going to do is step you through
20 briefly the data and the methods that we use, and then
21 tell you what our main results are and our conclusions.
22 And to give you the punch line before I start, I'm going
23 to -- I hope to leave you with the point that competition
24 leads to increased variation in the treatment given to
25 the sickest versus the healthiest patients, that is to

1 say, spreads out the distribution of care provided to
2 patients, and does so in a way that reduces expenditures
3 but improves health outcomes. So I'm going to leave you
4 with the thought that competition leads to more
5 variation, and that this is a good thing.

6 Well, just to put a little more details on the
7 introduction that I started with, tremendous variation in
8 medical care. And you can look at the Dartmouth Atlas
9 website to get a sample of some of these numbers. For
10 example, Medicare spending per enrollee in 1996 was about
11 \$8400 in Miami, but only \$3400 in Minneapolis, and no
12 associated differences in health outcomes after adjusting
13 for a whole basket of things.

14 And yet everybody agrees that it would be
15 undesirable to eliminate variation in medical care. I
16 mean, frankly, tailoring of treatment to individual
17 patient circumstances is essential, obviously, to getting
18 people the care that they need.

19 So we're left with -- well, I have one question
20 on this slide, but really with two questions. First,
21 what variation is good and what variation is bad? Right?
22 Some variation is clearly not so good, and some good.
23 But second, once we identify what the bad variation is,
24 how do we get rid of it? And that turns out to be, I
25 think, a pretty hard problem. One way to get rid of it

1 is through practice guidelines.

2 Practice guidelines, which is, you know, one of
3 the main things that many of the people in this room work
4 on, are unquestionably a valuable tool for getting rid of
5 bad variation. But everybody here knows that doctors and
6 hospitals are famously resistant to practice guidelines.

7 So is there another thing we can use, another
8 policy tool we can use, that might help us complement the
9 use of practice guidelines to get rid of this bad
10 variation? And I'd like to suggest competition as this
11 tool.

12 Economic theory, starting with a long line of
13 papers from Michael Spence and Joe Stiglitz to our Nobel
14 prize-winning colleagues, suggests that competitiveness
15 of markets is a key determinant of product variety, in
16 general terms, and in some sense variation in medical
17 care is a kind of product variety.

18 And what we're going to attach this to in this
19 paper is looking at variety in the dimension along with
20 difference in treatment received by less severely versus
21 more severely ill patients, and then ask the question,
22 what happens to the expenditures and the costs of
23 treating those patients, and what happens to the sick
24 versus the healthy patients' health outcomes?

25 Well, to give you a brief sort of graphical

1 presentation of what the theory is -- and I think people
2 have a handout because I know this print is -- it's
3 almost too small for me to see standing up here, so it
4 must be too small for everyone else to see --

5 DR. BARTLETT: Everybody have a handout?

6 DR. KESSLER: Some people have handouts? Okay.
7 That's good. So in theory, you know, as Marty talked
8 about in his initial talk, the effect of competition on
9 welfare is indeterminate, and that carries through to the
10 vehicle of the effect of competition of welfare through
11 variation. More competition could shrink the variation
12 in treatment intensity between more and less severely ill
13 patients, or it could expand the variation in treatment
14 intensity.

15 And I've got this presented graphically as
16 flattening out the line that provides a correspondence
17 between illness severity on the X axis and treatment
18 intensity on the Y axis. That would be if you had a more
19 competitive market that shrinks variation, you'd get
20 pretty much the same treatment intensity across illness
21 severities.

22 On the other hand, competition could steepen
23 that line, could mean that more severely ill people get
24 more intensive treatment relative to less severely ill
25 people. We just don't know. And furthermore, we don't

1 know if this is going to be good or bad for aggregate
2 social welfare.

3 These bottom two pictures sort of expand on the
4 upper right-hand picture and say, well, let's suppose
5 that competition expands variation; is that good or bad
6 for patients? The bottom two pictures graph illness
7 severity on the X axis and health outcomes on the Y axis.

8 And so competition, let's suppose, expands
9 variation; that could be good for aggregate social
10 welfare if it lifts the health outcomes of the sickest
11 people and doesn't hurt the health outcomes of the
12 relatively healthier people. Or it could be bad for
13 welfare if it doesn't change any outcomes at all, if you
14 just have needless variation due to competition, which
15 theoretically is another possibility.

16 So I don't mean these pictures to be too
17 literal, but just to provide you with an illustration of
18 how it might be true that competition could have
19 ambiguous effects on both variation and the consequences
20 of variation for quality.

21 Let me tell you a little bit about what Jeff
22 and I did in this paper, and then give you a sampling of
23 the results. What we did was analyze longitudinal
24 individual level data on essentially all Medicare
25 beneficiaries who were hospitalized -- Medicare fee-for-

1 service beneficiaries who were hospitalized with a heart
2 attack between 1985 and 1996.

3 And about these people, we know their zip code,
4 their demographic characteristics, their utilization of
5 hospital care in the year before and after their heart
6 attack, their readmission rates, and their mortality both
7 in and out of hospital.

8 And what we did was classify beneficiaries as
9 more severely ill if they had a hospital admission in the
10 year prior to their AMI. And I'll say more about this
11 measure of illness severity in a moment, which I realize
12 is, you know, purely a claims database to utilization
13 based measure, and so in many ways, you know, quite
14 limited. But I'll say more about why -- well, why we
15 think it's not absolutely terrible in a moment.

16 And what we did was match these patient level
17 data on market level data that Mark McClellan and I had
18 constructed and used in some previous work on the
19 competitiveness, the ownership structure, the size
20 structure, and the capacity of hospitals in various small
21 area hospital markets over this same period.

22 Well, this is definitely too small to see. But
23 I felt like I should put the regression equation up here,
24 at least, and talk you through it so that those people
25 who are aficionados of regressions will at least know

1 what exactly we did.

2 What we did was estimate the effects of
3 competition and market composition on eight different
4 measures of utilization and patient health outcomes. So
5 on the left-hand side of the slide are the eight
6 different measure of utilization and outcomes that we
7 used in the paper: total hospital expenditures in the
8 year after the patient's heart attack, including the
9 expenditures incurred in their initial admission; their
10 acute care hospital expenditures; their non-acute care,
11 mostly skilled nursing, expenditures; then the days that
12 they spent in the acute care hospital and in the skilled
13 nursing facility in the year following the onset of their
14 heart attack. And then, finally, three measures of
15 health outcomes, three measures of quality and, you know,
16 again I realize that -- I'll say a few more words about
17 the limited nature of these in a moment as well --
18 whether or not they were readmitted with heart attack
19 within one year of their initial onset of illness;
20 whether or not they were readmitted with heart failure
21 within year of the onset of their illness; and their
22 mortality within one year of their illness.

23 And we model each of those dependent variables
24 as a function of a small area and year in time, fixed
25 effects. The demographic characteristics of patients,

1 that's XIZT. AIZT, which is an indicator variable that
2 equals one if the patient had a hospital admission in the
3 year prior to the onset of his or her illness, that's our
4 measure of illness severity. So if you had that
5 utilization in the year prior, then you're more severely
6 ill.

7 HHIZT, which is these measures of the
8 competitiveness of markets that Mark and I constructed in
9 our earlier work. JZT, which is some measures of the
10 ownership and size distribution of area hospitals. And
11 KZT, which is a measure of market size or capacity that
12 the hospital market in zip code Z at year T had.

13 Well, these are results. And this is sort of a
14 replication of table 2 from the paper. It's selected
15 pieces of table 2 from the paper. And let me just talk
16 you through these. You can see these in your handouts or
17 you can look directly to table 2.

18 And what I've done here in this slide is
19 excerpt five of the eight dependent variables that we
20 analyzed. Remember, we had the total utilization, acute
21 and non-acute utilization, and then the three outcome
22 variables. What I'm going to do here is just talk about
23 total expenditures as a measure of utilization, non-acute
24 expenditures, and then the three outcome variables, in
25 the interest of time and space.

1 And I'm also not going to talk about all of the
2 regressors that I just mentioned. I'm just going to
3 focus us on the competitiveness effects and a couple of
4 the other area characteristics that I think are
5 interesting in the interest of trying to stay somehow
6 within my allotted 20 minutes. So what I'm going to do
7 is present you with the estimates of those independent
8 variables on the dependent variables, the outcomes that
9 we talked about.

10 The first row of this table, this slide here,
11 is the effect of having a prior year's hospital admission
12 on each of the dependent variables that we talked about,
13 the effect of illness severity on each of the variables
14 that we talked about. And the reason I present this is
15 to try to at least convince you preliminarily about the
16 validity of this measure, this claims-based measure, of
17 illness severity as a way to separate patients into a
18 sick versus healthy group.

19 So what this first row tells you is that
20 hospital utilization in the year prior to your AMI is
21 very strongly correlated with your subsequent
22 expenditures post-AMI. People who had hospital
23 utilization in the year prior to their AMI had about 8.7
24 percent higher hospital expenditures in the year
25 subsequent relative to patients who didn't have a prior

1 year admission.

2 And it's also very strongly correlated with
3 your health outcomes after AMI. Patients who had a prior
4 year hospitalization were 1.866 percentage points more
5 likely to have an AMI readmission in the year subsequent,
6 6.2 percentage points more likely to have a readmission
7 for heart failure, and about 11 percentage points more
8 likely to die in the year after their heart attack than
9 patients who didn't.

10 And those are very big effects. Just to give
11 you a sampling, the sample average mortality probability
12 here is about 36.5 percent. So we're talking about
13 separating patients into a group -- one group that had 11
14 percentage patients higher mortality than the other.

15 And one other fact just to give you is that
16 about 30 percent of AMI patients had hospital utilization
17 in the year prior to their AMI; 70 percent didn't. So
18 this separates people into two baskets, you know, 30/70,
19 with the top 30 being substantially more sick than the
20 bottom 70.

21 Okay. Well, what about people, the healthier
22 people, people who didn't have hospital utilization the
23 year prior to their AMI? What were the effects of
24 competition for them?

25 Well, for them, competition reduces

1 expenditures but doesn't lead to any adverse health
2 outcome consequences. So the way that I'm reading that
3 out of this table is that patients from areas that were
4 very concentrated or somewhat concentrated relative to
5 the omitted group, the omitted kind of area, which is a
6 competitive area, an unconcentrated area, patients from
7 areas that were very concentrated or somewhat
8 concentrated had higher Medicare expenditures in the year
9 after the AMI, about 1.2, 1.4 percent higher total
10 hospital expenditures. That's the leftmost column.

11 And also, that amounts to somewhat higher acute
12 expenditures. Total expenditures are mostly acute care
13 hospital expenditures, so I didn't really lose much by
14 omitting that column; but also higher non-acute
15 expenditures, about 4 to 7 percent higher non-acute
16 expenditures. But really no statistically significant or
17 economically important outcome differences, mortality
18 differences, across relatively -- for relatively healthy
19 patients across competitive versus noncompetitive
20 markets.

21 I'll come back to the latter two rows in a
22 moment. But let me just fill in the rest of this table,
23 which shows you the effects of competition and hospital
24 area market characteristics on patients who had hospital
25 utilization in the year prior to their AMI, patients who

1 were relatively sicker.

2 For these patients, the effects of competition
3 are very different. These patients have competition
4 leading to higher expenditures and better health
5 outcomes. So I'm reading that out of these rows by
6 seeing that patients, the relatively sicker patients in
7 more concentrated areas, have negative coefficients --
8 that's minus 1.443, 1.461 -- on expenditures, but if you
9 move all the way to the right-hand column of the table,
10 positive significant effects on mortality.

11 So patients, relatively sicker patients from
12 more competitive markets, higher Medicare expenditures,
13 more intensive treatment, lower mortality, and
14 substantially lower mortality that's about, depending on
15 whether you're comparing patients in very concentrated or
16 just somewhat concentrated markets, between .5 percentage
17 points and .8 percentage points, less mortality.

18 And that's on a base of, you know, as I said,
19 something like 36, 37 percent one-year mortality for
20 elderly people with heart attack. So that's about 2 or 3
21 percent better for sicker patients in more competitive
22 areas.

23 Now, that's a little bit qualified by those
24 middle columns, the effects of competitiveness on the
25 readmission rates for heart failure and for subsequent

1 MI. Those coefficients suggest that patients from --
2 sicker patients from competitive areas have slightly
3 higher rates of readmission with complications.

4 But people in this room, many people in this
5 room, know that these kind of claims database readmission
6 rates are really a combination of both an outcome effect
7 conditional on utilization and a measure of subsequent
8 utilization itself. I mean, a lot of the readmissions
9 that occur, or at least some of the readmissions that
10 occur, may be due to just trying to deliver more services
11 and not necessarily due to the patients really being, you
12 know, in some true sense having worse outcomes or being
13 sicker.

14 So, you know, I just want to qualify that a
15 little bit. The mortality measure, although coarse, of
16 course, is more objective and absolute, doesn't suffer
17 from that problem.

18 How much time do I have, really? Five minutes?
19 Okay. Let me say a couple words about these other rows
20 that I haven't quite talked about yet. There's a row
21 labeled "Above median density of for-profit hospitals"
22 here, and what this -- the coefficients in this row say
23 is that areas that have a presence of for-profit
24 hospitals have lower overall hospital expenditures
25 without having any worse health outcomes. And this is

1 consistent with other work that Mark and I have recently
2 completed and published in the RAND Journal.

3 What's interesting about this -- a couple
4 things interesting. First is the opposite signs of the
5 coefficients on total hospital expenditures and non-acute
6 expenditures, which says that the way that for-profits --
7 or the way that areas that have for-profits seem to be
8 economizing is by shifting people from the acute care to
9 the non-acute care setting.

10 They have higher non-acute expenditures but
11 lower acute expenditures. You don't see the lower acute
12 expenditures in this table because I omitted that column,
13 but that's the way you get the negative overall
14 expenditure effect, is by lowering acute expenditures.

15 The other interesting thing about this result,
16 which wasn't in Mark and my earlier paper, is that this
17 effect is the same across the distribution of illnesses,
18 in contrast to the effects of competition, which appear
19 quite different for sick versus healthy people.

20 Similarly, the effects of capacity being
21 expenditure-increasing, same across the distribution of
22 illnesses, roughly the same in percentage terms for sick
23 versus healthy people. You know, also quite different
24 from competition, which seems to have these different
25 effects across patients.

1 Well, one extension to this which I'll just
2 mention briefly -- you can read about in the paper if
3 you'd like -- is to ask whether the source of variation
4 in treatment across individuals that we identified here
5 is due to variation within hospitals in an area, or due
6 to variation across hospitals.

7 And what we find is that the variation in
8 treatment caused by competition is due primarily to
9 across-hospital variation in care, but the variation
10 caused by other characteristics like for-profit
11 penetration is due to variation within -- changes in
12 variation within hospitals. And so that, too, is another
13 reason to think that the mechanisms through which
14 competition and these other area effects are working are
15 quite different.

16 So in conclusion, what would I like to leave
17 you with? Most important point of what I have to say
18 here today is that patients from competitive hospital
19 markets have greater variation in care, where variation
20 is defined as the difference in treatment that you get if
21 you're sick versus if you're healthy. And this is a good
22 thing.

23 Healthy patients in more competitive markets
24 get less intensive treatment, but don't have any adverse
25 outcome consequences. Sick patients in more competitive

1 markets get more intensive treatment and have better
2 outcomes. And since these effects are net, on net
3 expenditure-reducing and outcome-improving, and the
4 calculations for all that's in the paper, we're going to
5 say they improve welfare.

6 This, in our view, supports a policy of strict
7 antitrust enforcement in hospital markets. There's no
8 evidence of a welfare down side to competition from
9 increased wasteful treatment variation à la Dartmouth
10 Atlas kind of thing. And there's no evidence also that
11 competition generates aggregate benefits at the expense
12 of any sub-group of patients.

13 That's another important question,
14 distributional question, about competition: Does raising
15 the level of competition in the market help some patients
16 but hurt others? We don't see any evidence of that.

17 For the future, I think the interesting
18 questions here is why these other characteristics, like
19 for-profit -- presence of for-profits, presence of
20 capacity in a market, seem to have very different effects
21 on expenditures and outcomes across a distribution of
22 patients than does competition. You know, why is that?
23 How are these other characteristics working? That's for
24 next time. Thank you.

25 DR. BARTLETT: Great. Thank you, Dan.

1 Let's get our commentators queued up. We're
2 going to go first to Brent James. Then, Warren, we'll
3 come to you, and then Bill Encinosa, we'll come your way.

4 DR. JAMES: Just a little bit of background in
5 these comments. First, you have to understand that I
6 live inside the black box. Very often in health services
7 research, people tend to see things from a distance and
8 measure large-scale effects, and then try to impute
9 what's happening. I think it's a little bit different
10 when you're right down there at the molecular level
11 watching the interactions take place; it really does make
12 a difference on how you think about things.

13 For background, Intermountain Health Care
14 System of 22 hospitals, nine of them are in intensely
15 competitive urban areas, and the rest tend to be very
16 small rurals. So mostly I'm going to be talking about
17 the nine.

18 We have about, oh, well over a hundred primary
19 care delivery locations, 400 employed physicians, about
20 800 community-based tightly-aligned physicians that I'll
21 be talking about, and our own insurance plan. IHC Health
22 Plans is about 50 percent of the commercial market, all
23 told, but it's about 20 percent of our total care
24 delivery volume by the time you roll in Medicare, which
25 is not particularly directed. So I'm talking in terms of

1 that kind of a system.

2 So a few comments on the specific studies or
3 ideas that I see from inside the box. Dr. Wong and Ryan
4 Mutter's study really showed, of course, that there was
5 an association between consolidation and quality, at
6 least on two variables. The question I ask is where did
7 that improvement in quality of care arise?

8 Having watched inside the box, I can think of
9 two ideas. One is benchmarking. Just the idea that when
10 you're working as part of a consolidated system,
11 especially if you've standardized your data systems, you
12 get comparable data and you can use it to learn from one
13 another within a system.

14 One thing that concerned me was the short time
15 over which the effects were seen. I would have expected
16 it to take a little bit longer, believe it or not, if
17 that mechanism were hard at work, or maybe the effects
18 would grow over time if you tracked it over a longer
19 period of time. Because it usually takes a while to put
20 together those systems. There are easy, fast ways of
21 benchmarking, but really the data consolidation makes a
22 difference.

23 The other is just the idea of economies of
24 scale, not just scale in terms of efficiencies of care,
25 the cost of care, but also scale in terms of the medical

1 outcomes of care. As you get more volume running through
2 a program, sometimes it makes a difference.

3 I would say that the idea of data consolidation
4 is a necessary but not sufficient condition. But it
5 probably is necessary, and that may be one of the factors
6 that you're seeing lying in behind that.

7 The second study -- just looking at volume
8 outcomes directly, Dr. Town's study, an idea. You talked
9 about learning by doing. We're starting a new bypass
10 graft program in St. George, Utah. For its first couple
11 of years of operation, it's going to be small. I think
12 we'll do -- I don't know if we have 50 hearts a year down
13 there.

14 Interestingly, we don't think of it as a stand-
15 alone program 300 miles to the south. We think of it as
16 a direct extension of an 1800-hearts-per-year program
17 located up in Salt Lake City. Well, wait a minute.
18 We're going to pull particular surgeons from Salt Lake
19 City to work in St. George. We're going to pull pump
20 techs, pull ICU nurses, operative nurses, in a fully
21 combined program.

22 This idea first cropped up when the Institute
23 of Medicine, the Committee on Quality of Healthcare in
24 America, we were looking at the volume/outcome
25 relationship, and we found a little anomaly in the data.

1 We found small programs that had wonderful results, and
2 started to ask the question, how is it that this small
3 program is getting as good results as the great big
4 programs?

5 Well, realize, learning by doing, rather than
6 just letting that happen, you can make it explicit. You
7 can start to learn by measurement and explicit process
8 management, in other words, which is one of the new
9 things that are really cropping up these days.

10 A prediction -- I hope I'm not going too far
11 out on a limb here -- looking at the way the program in
12 St. George will start, I expect its mortality rates to be
13 essentially the same as our 1800-heart program pretty
14 much from the start. And let's put it this way: If it's
15 not immediately, it will get a very fast response because
16 we can track that and understand that. See that idea?

17 I think a very interesting follow-on area of
18 research of volume/outcomes is to take a close look at
19 those anomalies and see if there's a functional
20 difference down at the front line, and if this idea of
21 process management that crops up so often that's been
22 mentioned several times really does play a significant
23 role.

24 Dr. Kessler's study, a few thoughts on that.
25 First of all, I really like it. Two ideas that may make

1 it stronger. You may have picked a clinical condition
2 where doing more makes a big difference to patients. We
3 know of four evidence-based things that make a difference
4 in AMI outcomes. The big one is rapid restoration of
5 blood flow to the heart. PCI, primary percutaneous
6 intervention, primary PTCA, has a slightly better result
7 than rapid thrombolysis at a substantially higher cost.

8 I wonder how your models would work if you
9 applied them to some areas where there's a high rate of
10 variation for things where there's not good evidence of
11 positive relationship. The one that sprang to mind was
12 spinal fusion for low back pain, for example, and that it
13 might be very profitable to examine some of those other
14 areas.

15 AMI, you may have fallen into an area where
16 there is a clear demarcation. And the incentives, the
17 financial incentives to the physicians, match the
18 evidence for the patients. But there are other areas of
19 health care where it goes the opposite direction,
20 potentially. So that might be very interesting to look
21 at.

22 An operative mechanism, potentially -- you
23 know, Jack Wenberg talks a lot about supplier-induced
24 demand and that comes to bed capacity. And I'm curious
25 about bed capacity in those competitive communities.

1 What we know is if the beds are there, physicians tend to
2 use them. And if they're not there, they don't.

3 One of the effects of an intensely competitive
4 market is that hospital administrators try to get their
5 fixed costs down, which means that they basically wring
6 out beds from the system. And that might be another
7 explanatory variable that would fall back into your
8 models.

9 A final idea comes back to that concept of the
10 business case, with apologies to Arnie and others who've
11 heard this example before. Some years ago, we ran a
12 protocol that significantly reduced variation in care for
13 community-acquired pneumonia, for hospitalized patients
14 with community-acquired pneumonia. In fact, today we get
15 about 90 percent compliance across about 2000 physicians
16 in about an 800-mile diameter for choice of initial
17 antibiotics. Still Cephtriaxilin and -- I think it's not
18 Azithromycin, but some macrolyte.

19 So massive reductions in variation. That was
20 associated with a decrease in complication rates of about
21 25 percent, a fall in mortality rates of 26 percent in
22 the initial quasi-experiment. Among patients where they
23 followed the recommended antibiotics, it was a decrease
24 in mortality of about 40 percent, a decrease in cost of
25 12.3 percent, and a decrease in our net operating

1 revenues of about 1 percent. It turns out that relative
2 to a business model, all of the savings flowed back to
3 purchasers, carrying additional money with it, you see.

4 I think that we somewhere along the line need
5 to talk about perverse payment mechanisms. How could we
6 talk about competition without talking about perverse
7 payment mechanisms? Because, frankly, if we were
8 behaving on a financial model, we probably would not have
9 widely implemented that pneumonia protocol when we knew
10 how it operated, you see.

11 We were attempting to optimize patient
12 experience and patient medical outcomes at the expense of
13 our financial bottom line, and it damaged our competitive
14 position relative to our -- in our urban markets,
15 primarily the Columbia HCA. We own about 50 percent of
16 the beds in the state. They own about 30 percent.

17 In that line, though, a few other ideas, to
18 move away from the specific studies. Some years ago, we
19 discovered that we could price our health plan 3 to 7
20 percent higher than competing health plans and still get
21 the contracts. If we went over 7 percent, we lost them.
22 Seven percent was the upper margin of that. And we had
23 pretty good internal measurement for that.

24 Interestingly, the main driver in the
25 competitive areas, the highly urbanized areas of Utah,

1 was a general background perception of quality. On our
2 health plan, we have about a 4 percent turnover rate, 2
3 percent discretion rate, 2 percent nondiscretion, where
4 our closest competitor had about 12 percent turnover
5 rate.

6 And it was because of general perceptions of
7 clinical quality, which differs from direct technical
8 measures of technical quality, and also, very, very good
9 service quality, where people like their overall
10 experience, as opposed to technical measures of medical
11 outcomes. Again, the key word is patient perceptions or
12 service quality in and that whole thing.

13 Interestingly, probably the target group when
14 we're talking technical quality is referring physicians
15 and commercial health plans. We don't go straight to
16 patients. We do to go referring physicians.

17 An illustration that this group might find
18 interesting: A little over a year ago, a group of
19 orthopedic surgeons in a northern Utah community
20 organized themselves -- well, 17 orthopedic surgeons and
21 neurosurgeons. Some members of the group were there
22 unwillingly. They were threatened with call coverage,
23 that if they didn't join the economic group, they would
24 not get call coverage, which makes it very, very
25 difficult to practice medicine.

1 But they eventually rolled up all of the
2 orthopedic and neurosurgeons in that community. It was
3 strictly an economic collaborative, and then they set out
4 to fix prices by threatening boycotts. They chose IHC
5 Health Plans, demanded a 38 percent increase in their
6 rate structure. Otherwise, they would not care for
7 patients in that community.

8 We thought it was an illegal boycott but
9 understand that the legal authority, the Department of
10 Justice, the FTC, have bigger fish to fry than a small
11 community in Utah. There are five mechanisms that we
12 could have used to deal with that, but the key one turned
13 out to be referring physicians, the primary care network.

14 We just took the problem back to the referring
15 physicians, pointed out that it was a fixed-size pie,
16 that if we increased their rates, they would come out of
17 some other part of the market.

18 Of course, the orthopedic surgeons and
19 neurosurgeons, the one who was doing the poorest in
20 volumes coming through our hospital as opposed to the
21 competing HCA hospital in their town would have been
22 taking home about \$300,000 a year, or should have, the
23 one doing the best about 1.5 million. And we just went
24 to those primary care physicians averaging about \$150,000
25 a year in take-home income and asked them what we should

1 do.

2 Well, two choices: One is we give the rate
3 hike to the orthopods. Number two is that we arrange a
4 transportation network to move patients down to the next
5 city where our other orthopedic surgeons could deliver
6 care.

7 It took about a New York second for the primary
8 care folks to make their decision. And this was an
9 interesting thing. We rerouted not just their IHC health
10 plans patients, we changed the whole referral pattern.
11 So their Medicare patients moved as well, if you see that
12 idea.

13 That's probably why four of the orthopods who
14 led that basically poisoned the well so badly that they
15 couldn't practice in the community any more, and ended up
16 leaving the community because they could not maintain a
17 practice in the face of the primary care physicians'
18 response to their boycott, if you see that idea.

19 Well, the message that I think I learned from
20 this is that maybe in those circumstances, my primary
21 target group is the referring physicians. Interestingly,
22 you know -- I hesitate to say this -- we never involved
23 the patients in the decision. We sorted it out
24 internally, if you see that idea.

25 And so I think that concept of referring

1 physicians and commercial health plans is a very, very
2 important idea. Within that, patients choose insurance
3 plans. They usually make a choice at a point in time
4 when they don't know what healthcare needs they'll have
5 in the future.

6 They base that upon access to primary care
7 physicians, and once they hit those primary care
8 physicians, the primary care physicians seem to be the
9 primary determinant of secondary usage and hospital
10 usage. And that might be just a really useful concept, I
11 think, along the way in terms of a refined model for this
12 whole thing.

13 With that, I'm done. Thanks.

14 DR. BARTLETT: Thanks, Brent.

15 Warren, we'll come to you.

16 DR. GREENBERG: Thank you very much. It's a
17 pleasure being here today in this conference entitled,
18 "Provider Competition and Quality." I think the title of
19 this conference is what perhaps almost all of us would
20 agree we should have, more provider competition and an
21 injection of more quality. I'd like to make three points
22 from microeconomics which may help us out, touch on the
23 papers a bit, and then go into the papers in detail
24 before my ten minutes.

25 First, from microeconomics, incentives make a

1 great deal of difference. If we have the employer who in
2 survey after survey says they're lining up their health
3 care plans for the choice of employees based on cost,
4 their interest is not in quality. Their interest is in
5 bottom line cost. I know about Leapfrog. I know about a
6 couple other firms out there. I know about a couple
7 unions. But survey after survey shows the employers are
8 interested in cost only.

9 Incentives: Incentives of the health care
10 plan. Incentives of the health care plan, they do a good
11 job. They collect the best providers, and I heard what
12 you said about getting in the university affiliates and
13 so forth. The next enrollment period, the next
14 enrollment period they're going to be adversely selected
15 against with people who are chronically ill, driving up
16 their health care costs and driving them out of business.
17 They're not interested particularly in high quality.

18 Therefore, we come to the providers. And how
19 will the providers respond? They have the professional
20 norms. They want to do a good job. But they don't have
21 the kind of incentives lined up for higher quality
22 healthcare.

23 Not to say that quality is the only thing that
24 matters. As economists, we're concerned about trading
25 off, as Mark and others have said, of course, quality and

1 cost and price. But we don't have the right incentives
2 for quality as yet.

3 Second point is, I think one to blame is the
4 economists -- I am one those -- as learning
5 microeconomics teaches us almost nothing about market
6 structure and quality of care. I'm not sure what
7 economics says about having a monopoly market structure
8 and the quality of care. And always, in economics, we're
9 talking about only quantity and talking about price. And
10 that's why I think, again, why this conference is so
11 important, to inject quality into the equation.

12 The third point I'd like to make is that firms
13 and hospitals and health care firms don't all behave in
14 the same way in regard to quality within the same market
15 structure or within the same geographic area. We had
16 heard before, for example, when -- or one of the papers
17 had suggested when DRGs came in, and therefore a cap on
18 prices of hospital care, that therefore hospitals would
19 no longer compete on quality as they did under the fee-
20 for-service setup.

21 Under fee-for-service, prior to prospective
22 payment and prior to the rise of managed care, we had
23 firms out there with supposedly terrific quality. We had
24 firms and hospitals out there with sub-par quality. All
25 firms, all hospitals, behaving differently.

1 Under the DRG, under the managed care
2 framework, again we have a whole host of physician
3 practices and hospital firms in different areas, however
4 you would measure quality, and we saw attempts to measure
5 quality throughout the afternoon.

6 So those are three of the points I did want to
7 make. The papers themselves were superb shots at -- all
8 of them at trying to clear up episodes of what we know
9 and what we don't know in regards to these tradeoffs
10 between quality, cost, and price.

11 I think, for example, in Gaynor's paper, Martin
12 looks at all hospitals and then recalls the Kessler-
13 McClellan study about the concentration of the industry
14 leading to lower quality and the lesser concentration
15 leading to higher quality.

16 My answer -- my question to Martin and to Dan
17 sitting here is, what are the incentives when -- or even
18 Herb, who has now looked at this area -- what are the
19 incentives of hospitals which merge to provide better
20 quality?

21 What's driving them to provide better quality,
22 if indeed these are your results and indeed we have the
23 incentives of the health plan and the employer? Yes,
24 they want to do a good job. But many hospitals out there
25 want to do a good job as well.

1 Again I'd like to talk about the idea that we
2 have an array of different sellers out there, all
3 providing different prices and different quality and
4 different tradeoffs among those different hospitals out
5 there.

6 Mark asked about vertical integration. Here's
7 an area we know almost nothing about in terms of quality.
8 Mark had asked why firms may integrate. Perhaps some
9 hospitals and health plans have integrated in order to
10 fill some of those empty beds in some of those hospitals.

11 Okay. Certainly Mark is correct when he says
12 that the level of quality can be too high or low relative
13 to the efficient level as we balance off, again, against
14 cost and prices and quality.

15 Okay. In Dan's and Jeff's study of the
16 hospital marketplace, I find that to be quite interesting
17 about competition leads to more variation. I haven't
18 seen that before. And it's -- I find it to be quite an
19 interesting outcome of your results.

20 I would ask: It seems that in measuring
21 competition, the more firms in the marketplace, the
22 greater the variety of different kinds of outcomes you're
23 going to get. Perhaps using the number of hospitals
24 leads simply to a greater variety in the outcomes that
25 one would receive.

1 In Herb's paper, Herb Wong's paper, we also
2 find again an attempt to look at hospital mergers and its
3 effects on quality. One of the problems in this study, a
4 difficult problem, is defining what a hospital merger is.
5 So difficult to get these data.

6 If a hospital acquires 40 percent of another
7 hospital, does this count as a merger? Suppose the
8 hospital has bought only the outpatient unit of another
9 hospital. Is this a joint operation agreement with
10 another hospital? How about a contractual arrangement
11 with another hospital?

12 Very, very difficult to get the data, and I
13 know Herb has gone through a great deal of work verifying
14 this. And I guess he can't do enough of that in doing
15 the paper, and I applaud him for checking and checking a
16 difficult concept to define, actual mergers.

17 Again, we could ask the question, what are the
18 incentives on a hospital merger for hospitals to improve
19 the quality? The Whipple study by Dr. Town, Whipple
20 versus the CABG, again quite interesting. I would only
21 ask perhaps -- this is a seminal study in many respects,
22 but I think we only used Florida and Georgia here, and I
23 think only inpatient mortality, as I read it. How about
24 mortality rates after ten days out of the hospital?

25 Okay. And I think these are basically my

1 remarks. I also was given Ryan Mutter's very, very
2 comprehensive examination of the quality measures, and
3 I've already said something about the department store
4 approach, yet nevertheless I think the department store
5 approach is one approach.

6 But when the FTC comes down to a merger between
7 two hospitals in a defined area, and as the chairman
8 said, he wants to use quality now, what can we tell the
9 Chairman when we want to trade off, yes, this hospital
10 has lower prices, yet it has lower cost, yet it has
11 higher quality? How do we tell the Chairman to measure
12 quality? We can't use the department store approach
13 then. Maybe some of Dr. Romano's literature will be
14 quite helpful there.

15 DR. BARTLETT: Thank you, Warren.

16 Bill Encinosa, we come to you.

17 DR. ENCINOSA: First, some technical comments.
18 First, the Kessler/Geppert paper. The basic assumption
19 in this paper is essentially that the coefficient of
20 variation and expenditures can be interpreted as
21 variation in the care for heart attacks.

22 Now, this essentially works because they focus
23 on Medicare or fee-for-service patients, which gets rid
24 of any price variation. If you did this in the private
25 sector, you couldn't -- you essentially couldn't tell if

1 the variation in expenditures was due to variation in
2 quality or variation in prices.

3 Okay. So this is a clever paper. Just three
4 points about this assumption. Excuse me. First, it
5 seems like you didn't have any kind of case mixing index
6 in your hospital and zip code regressions. It seems that
7 at least you could include the percentage of patients
8 that had the prior hospitalization.

9 The second point: It seems like you might not
10 be capturing some possible variation in Medicare
11 reimbursement across the hospitals. You might capture
12 that with your teaching hospital variable.

13 The third situation is that some of the
14 variation might actually be due to people that have
15 supplemental insurance. It could be the case that in
16 your competitive markets, there's a lot of large
17 employers who essentially give their retirees really good
18 benefits, supplements to Medicare. It seems like that
19 would be something you could easily control for.

20 Concerning your conclusion that competition
21 reduces total expenditures, it seems like that might be a
22 little sensitive to the bias that you introduce when you
23 retransform the log. It seems like you might want to use
24 some kind of smearing estimator or some type of link.
25 And then once you do that, you could predict your

1 expenditures, and with those predictions, you could come
2 up with your effect of competition. And that would also
3 give you a standard error essentially with your
4 prediction.

5 Now we come to Bob Town's paper. The only
6 suggestion I have is you might want to control for the
7 insurance, especially for HMO patients. That would help
8 control for any type of restriction they might have of
9 hospitals, plus it might control for whether or not
10 they're healthier patients.

11 Also, you might want to consider some spectrum
12 of outcomes. For example, currently I'm looking at CABG
13 patients using a similar type of instrument based on
14 distance to the hospital. Looking at patient safety, I
15 find that as volume increases, patient safety outcomes --
16 the rate of patient safety events decreases. That's also
17 with the instrument.

18 Now, I get the same result with mortality.
19 Mortality goes away with the instrument. But also, if I
20 look at failure to rescue, if I look at death after you
21 have a complication, there seems to be a volume effect.
22 So with your Whipple, you might find it of interest to
23 look at failure to rescue, since it seems like there's
24 quite a bit of complication with the Whipple.

25 Now, with your paper, you can only predict what

1 might happen with a merger. Now, when you come to Herb's
2 paper, he has the advantage where he can actually see
3 what happens under a merger. So with Herb's paper, I
4 would suggest you focus on CABG, and you could compare
5 your prediction of volume and see what actually happens
6 under the mergers. And that would really help us see
7 whether or not the whole volume literature sheds any
8 light on actual merger behavior.

9 So those are my technical comments. One major
10 component missing from these papers is they don't look at
11 the outpatient. I think currently about 60 to 70 percent
12 of surgeries are outpatient surgeries. And most -- well,
13 in 2001, 37 percent of the growth in health care spending
14 was actually due to outpatient hospital spending. Excuse
15 me.

16 Now, this was much more than prescription drug
17 and inpatient care spending combined. So it seems like
18 it would be of interest if we could develop some kind of
19 Herfindahl concentration measure based on outpatient care
20 and not just on inpatient care.

21 Then the question would be, how do we combine
22 those two? Because obviously the linkage between the two
23 is endogenous. You know, you switch between inpatient
24 and outpatient. That would be a controlled vary of the
25 hospital.

1 So those are the comments I have.

2 DR. BARTLETT: Okay. Thank you, Bill, very
3 much.

4 Let's open it up for comments that anybody
5 might have on the papers, on the comments themselves,
6 anything at all. Yes. Go ahead, Marty.

7 DR. GAYNOR: I have two questions for Bob and
8 one for Dan and Jeff.

9 First, Bob, did you find a volume/outcome
10 relationship in volume/outcome research? You said there
11 have been 125 studies. Are they getting better?

12 But a little more seriously, if the hypothesis
13 is learning by doing, it seems to me that implies that
14 there's a dynamic relationship. Specifying an amount
15 like that fully is going to be complicated, and doing it
16 right. But just a real quick back-of-the-envelope
17 specification test might be sticking a measure of
18 cumulative volume, tagging it onto the equations you have
19 right now and seeing whether it explains any additional
20 variation.

21 I'm just curious. Have you guys looked at that
22 or thought a bit about that issue?

23 DR. TOWN: Yes. I mean, ultimately we want to
24 estimate a forgetting part of this, which would get at
25 your issue. Putting cumulative volume, it's so highly

1 correlated with annual volume that the identification
2 goes away.

3 But I think in general, the processes by which
4 learning occurs and how it's -- you know, how it's
5 happening -- you know, where is it happening? At the
6 physician level, which I think goes to the point that was
7 raised earlier, or at the hospital level, or some
8 combination of the two, really hasn't been teased out
9 well, partly because to do that, the data -- it requires
10 a lot more data collection, which is painful.

11 And so in discharge data, it's easy to ask the
12 questions that, you know, we attempted to address. But I
13 think, you know, those are kind of the next stages I
14 think that the research has to go.

15 DR. GAYNOR: A question for Jeff and Dan, and
16 this is with regard to sort of welfare inferences.

17 I'm not entirely clear about the welfare
18 inferences. And let me try and articulate what I'm
19 thinking or not clear about. It seems to me that for AMI
20 patients, quality competition has to be purely business
21 dealing.

22 I'm presuming that people don't go out and get
23 treated for heart attacks in less concentrated markets
24 because quality is better there. I could be wrong, but
25 it's got to be mostly business dealing. And that's fine.

1 I mean, that's going to increase consumer welfare, I
2 think, if quality is higher in those markets.

3 It seems like then a lot of the welfare
4 inferences revolve around whether they're fixed costs and
5 how large they are, and that takes us back to the theory
6 literature, where again the conclusions about welfare
7 revolve often, although not always, around fixed costs.

8 And I wonder if you just have a sense -- it's
9 not clear to me what the right measure would be, but I'm
10 just wondering if you have any qualitative sense about
11 the magnitude of fixed costs. Are they insignificant, or
12 something that you would expect to be fairly large, or
13 what?

14 DR. KESSLER: Well, I mean, I think what you're
15 saying is right, that fixed costs are a big component of
16 the story. I guess the conclusion that I draw from these
17 results is that monopolists are under-providing variety
18 even though it's valuable to consumers and to society
19 because provision of the variety in the presence of fixed
20 costs reduced profits.

21 So I don't -- is that responsive?

22 DR. GAYNOR: Yes, I think, in part. But, of
23 course, it's conceivable that there may be still over-
24 provision in the least concentrated markets. I think
25 that could be consistent with what you just said. I

1 don't think those things necessarily contradict each
2 other.

3 DR. KESSLER: Over-provision of variety --

4 DR. BARTLETT: Right into the mike, if you
5 wouldn't mind.

6 DR. KESSLER: Over-provision of variety? Why
7 is there too much variety in --

8 DR. GAYNOR: Well, because of the fixed costs
9 associated with that. If they're -- and I just don't --
10 I don't have any idea about what the magnitudes might be.
11 And like I said, this is sort of -- this is speculative
12 on my part. Just curious what your thinking might be.

13 DR. KESSLER: Because we haven't subtracted off
14 the fixed costs in this analysis. I see. I'm going to
15 have to think -- do you have an answer to that? Okay.
16 I'm going to have to think. That's a good question. I
17 don't know. Let me think about it.

18 DR. BARTLETT: Go ahead, Warren.

19 DR. GREENBERG: Why would monopolists under-
20 provide quality in general? What's your -- what would be
21 the economic theory behind that?

22 DR. KESSLER: If there are fixed costs.

23 DR. GREENBERG: In General. Fixed costs --

24 DR. KESSLER: Well, if there are fixed costs,
25 then -- fixed costs to providing extra new products and

1 you're a monopolist, why bother providing the extra new
2 product, which is just going to have a fixed cost for you
3 but you're not going to get any more business because you
4 get all the because anyway if you're a monopolist?
5 Right?

6 In that case, provide too little variety, keep
7 the fixed costs that you save in your own pocket, and
8 raise profits. That's the --

9 DR. GREENBERG: That's helpful.

10 DR. BARTLETT: Let me bring into this, you had
11 made a comment earlier on -- I just want to get Bill into
12 this real quickly -- that sort of went to the issue about
13 the welfare implications, and you talked about whether,
14 you know, increasing average quality, what impact it had
15 on overall welfare. Does the paper by Dan and Jeff start
16 getting to some of the issues that you were concerned
17 about when you made that comment?

18 DR. STRYER: Yes, absolutely.

19 DR. BARTLETT: Use that mike, if you would,
20 Bill.

21 DR. STRYER: Absolutely. It gets at it quite
22 explicitly. Because the point I was making is that
23 variety in product offerings can be good for its own sake
24 because different people prefer different bundles of
25 attributes in their consumption.

1 And what they demonstrate in their paper is not
2 only that variety is more provided in more competitive
3 markets, but that that more provision comes mostly from
4 different hospitals providing different bundles of goods.
5 Because most of the variation comes from between-hospital
6 variation, so that it's actually having the extra
7 hospitals in the market that's a good thing. Because one
8 hospital can't easily provide two different varieties of
9 care, but two different hospitals can easily provide two
10 different varieties of care. So I think that Dan and
11 Jeff's paper gets to that point exactly.

12 DR. ROSENTHAL: Can I just clarify? Marty,
13 were you getting at sort of the fixed costs associated
14 with tailoring care to sick versus healthy patients? Is
15 that -- because it seems like the analogy to sort of the
16 very generic economics literature.

17 We're talking about sort of offering, you know,
18 high-end cars, low-end cars. You have a totally
19 different production line. But here it's the same
20 production line, and you're just, you know, maybe having
21 more intensive nursing care and PT/OT for the sicker
22 patients and shorter lengths of stay for the healthier
23 patients, which is the kind of variation I think that Dan
24 was really looking at.

25 And it's not clear to me that there are fixed

1 costs to doing business that way. But maybe I'm not
2 fully understanding what you were getting at.

3 DR. GAYNOR: Yes. I hadn't thought that deeply
4 about it, Meredith. That well could be. If what's
5 happening is product variety is obtained by -- via entry,
6 then there are going to be some fixed costs associated
7 with that. And there's nothing in theory -- actually,
8 theory tells us we can get too much with free entry. And
9 that's what my comment was directed at, just asking Dan
10 and Jeff whether they had any sense of that.

11 DR. BARTLETT: Bill, and then Mark.

12 DR. SAGE: Well, I'll let Mark, if he wants to
13 punch into the debate among economists right now.

14 DR. PAULY: Well, let me try a little bit, both
15 on the fixed costs, and I'll try to get Dan to go out on
16 a limb a little further about something else.

17 The fixed cost argument, well, if it's across
18 hospitals, unless these hospitals in the competitive
19 markets are unusually small, there shouldn't be much in
20 the way of fixed costs there.

21 I guess I'd be more worried about these are
22 Medicare reimbursements, and that's not necessarily
23 costs. So we don't know what's happening to cost at
24 those hospitals. We only know what's happening to
25 Medicare reimbursements. And so to make a real welfare

1 judgment, you'd have to know what was happening to costs.

2 The go-out-on-a-limb point, though, was, you
3 know, we've been talking a lot about consumers don't care
4 about quality, and they're sort of perpetual adolescents
5 when it comes to quality and never pay attention. But is
6 this right, Dan?

7 The way to interpret your results, especially
8 in terms of the choice across hospital, is when I visit
9 my daughter in Chicago -- and say I had a hospital
10 admission last year; I haven't, but say I did -- and I
11 suddenly feel chest pain, I know about and I'm able to
12 choose a hospital in Chicago that specializes in the care
13 of people with heart attacks who had a previous hospital
14 admission; whereas if I was in a small town, I wouldn't
15 find that match?

16 It almost seems too good to be true. Somehow,
17 there's a selective matching that's going on here. And
18 unless that's just due to divine providence, somebody
19 must be knowing something to do it.

20 DR. KESSLER: Why does there have to be
21 matching?

22 DR. PAULY: Well, if the difference across
23 hospitals is that some treat the sicker patients with
24 more intensity and some treat the healthier patients with
25 less, then I must know the hospitals that specialize in

1 sicker patients. Is that the right way to interpret it?

2 DR. KESSLER: I don't think so. I mean --

3 DR. PAULY: Otherwise we're back to fixed
4 costs, and Marty's maybe got something.

5 DR. KESSLER: No, no. I mean, the point that
6 you and Marty are making, that we've only measured
7 revenues and not costs here, is a good one. I think I
8 can get out of that by saying if I assume that costs
9 never exceed revenues -- well, maybe I can't make a
10 welfare conclusion anyway. No. I mean, this is a good
11 point overall.

12 But I don't think -- I don't see why it needs
13 to be true that consumers match themselves.

14 DR. PAULY: Well, the idea is that when --

15 DR. KESSLER: Maybe it's just chance that some
16 hospitals do well --

17 DR. PAULY: Oh, I see.

18 DR. KESSLER: -- and some hospitals do lousy.
19 And maybe you got a good draw of the card and went to the
20 hospital that matches treatment well, and then you get a
21 better outcome at a lower cost and expectation. But
22 maybe you picked the wrong hospital, in which case --

23 DR. PAULY: So in a place with more variety,
24 I've got a better chance at hitting one that's closer to
25 what I need?

1 DR. KESSLER: Yes. Yes.

2 DR. BARTLETT: Denise, did you want to wade in
3 on this particular issue?

4 DR. REMUS: On their study. I had a question
5 about some of their adjustments that --

6 DR. BARTLETT: Go ahead, and then we'll go back
7 to Bill.

8 DR. REMUS: I just had a question from more of
9 the clinical perspective. In looking at what you were
10 talking about for severity and the relationship to cost
11 and some of the other outcomes, when you noted that
12 severity was described as a hospitalization in the year
13 prior, my question is, was it any hospitalization or did
14 you actually look at the reason and whether that was
15 related to a cardiac disease or anything else that might
16 be considered a little more complex?

17 And then the second would be, when you were
18 looking at costs, did you control for medical only versus
19 surgical management? Because the AMI patient who goes on
20 to have a CABG and some other procedures is going to use
21 more resources than that which is only a medically
22 managed patient.

23 DR. KESSLER: Well, in response to your first
24 question, the measure of severity was just whether or not
25 you had any hospital admission at all. So it's a very

1 coarse measure of severity. We could actually extend
2 that to be more specific, whether or not you had a
3 cardiac admission.

4 In response to your second question, the
5 Medicare DRG expenditures number is essentially a medical
6 versus surgical treatment path indicator. I mean, that's
7 not exactly true, but mostly what post-MI expenditures
8 are capturing are the extent to which you got some kind
9 of surgical intervention versus not.

10 DR. BARTLETT: Bill Sage, back to you.

11 DR. SAGE: Thanks. I'd like to take about four
12 steps back from this economics discussion and try to put
13 some of this in context of the generalized ability of
14 each of the results that we've been hearing about.

15 And I think it's actually -- generalizability
16 is an interesting subject of its own for this group
17 because although the health policy people here, myself
18 included, tend to want generalizable results, the
19 antitrust enforcement people here, myself also sometimes
20 included, want results that are specific to particular
21 products and particular geographies.

22 But it seems to me that in sort of the
23 generalizability of this line of research, I mean, we've
24 got three easy analytic steps. One is the correlation
25 statistically, two is the clinical mechanism, and three

1 is the financial incentive, to pick up a little on what
2 Warren was saying.

3 Here my best example is from Dan's paper. But
4 I think I could probably draw the same lessons from the
5 other two as well. Dan has the correlations, and I
6 agree, they're gold standard just like everything else
7 he does, and Jeff, too.

8 The clinical mechanism is what -- and then sort
9 of you get the question of AMI and the generalizability
10 of this to overall lessons about competition and quality.
11 So then Brent weighed in on the clinical mechanism,
12 saying, well, AMI may be unusual if not unique because
13 doing more for patients correlates with better clinical
14 outcomes.

15 And then we have the piece on financial
16 incentives, which is again a question of the
17 generalizability of Dan's AMI example for sort of overall
18 policy-making. And here it's interesting because I had
19 written in the margin before Dan finished, in my own
20 notes, whether the increase in variation was a reduction
21 for the -- in care and costs for the less severely ill,
22 or an increase in case and costs for the more severely
23 ill.

24 And then Dan told me it was both. So I had to
25 think about what the mechanisms are and what the

1 incentives -- I should say, to stay with my own
2 organization here -- what the financial incentives are
3 for each of those two pathways.

4 And in a competitive market, to say that
5 everyone would like to reduce cost where cost is not
6 relevant to outcome seems easy. But then I also have to
7 account for that high-end increase, and there I have to
8 ask myself, well, what are the incentives for people to
9 engage in that?

10 And here I come back and I think, well, maybe
11 AMI is unusual. AMI is -- I mean, hearts in general are
12 a service that hospitals want to provide and want to
13 advertise. And they're also a service that have
14 attracted a fair amount of public reporting and other
15 things that would actually induce hospitals with the most
16 severely ill people to provide clinically beneficial
17 additional care.

18 And I use this by way of sort of an overall
19 framework for stepping through how you have to take this
20 research and make conclusions about its generalizability,
21 the correlation, the clinical mechanism, and then the
22 financial incentives.

23 DR. BARTLETT: Patrick and Irene. Irene, is
24 yours on Bill's also? Go right ahead, and then we'll go
25 to Patrick.

1 DR. FRASER: Just one quick thing on the issue
2 of generalizability. I was also noticing on the
3 Whipple/CABG study, one was done in Florida and one of
4 the studies was using California data, very different
5 markets and very different payor mixes. And so that
6 could be another kind of element that could affect
7 generalizability.

8 DR. BARTLETT: Patrick?

9 DR. ROMANO: Yes. I'd like to throw out a
10 couple of comments. First, on Dr. Wong's paper, I think
11 it's great that people are starting to use the patient
12 safety indicators and other measures that really go
13 beyond just looking at mortality to assess the impact of
14 competition.

15 I have to be a little careful with what I say
16 with Denise Remus in the back of the room. But Lisa
17 Iezzoni and I were sort of conferring a little bit.
18 Actually, her group did much of the initial work on
19 developing what was called the complication screening
20 program. And we, with AHRQ's help, took some of that
21 work and picked some of the best indicators from her work
22 and added some other indicators and turned it into what's
23 now called the AHRQ patient safety indicators.

24 I think, though, that we have to be a little
25 bit skeptical about those results because, after all, we

1 have 20 indicators, and 18 of them, according to -- if I
2 understand your analysis correctly, showed no effect.
3 Two did show an effect.

4 One of those indicators that showed an effect
5 was foreign body left in, which was an indicator that is
6 really extremely rare, and showed no provider level
7 variation in our previous analyses of -- empirical
8 analyses using NIS and SID data. So I find it a little
9 hard to believe that hospital mergers would actually
10 affect the rate of that when we couldn't find any
11 evidence of variation at the hospital level.

12 So the iatrogenic pneumothorax, I don't have
13 any theory as a clinician that would help me understand
14 why that one indicator would be more responsive to the
15 effect of mergers than any other indicator.

16 So I think that my interpretation of the
17 results is basically negative, which is okay. You know,
18 I mean, I think it's okay that hospital mergers haven't
19 had an observable effect on these morbidity outcomes.
20 But I would just be cautious about, you know, getting too
21 excited about a couple of positive findings there.

22 One other comment about Dr. Town's paper. I'm
23 not sure if this has made it into print yet, but in
24 California we now have a CABG mortality reporting program
25 which uses detailed clinical data, very similar to the

1 programs that have been existent in New York and New
2 Jersey and Northern New England. And there have now been
3 one, going into two, public reports based on those data.

4 One of the things that they've found is that
5 with the better risk adjustment using the clinical
6 variables that are available in the data set, that the
7 volume/outcome effect goes away among the California
8 hospitals participating in that program.

9 And that's actually consistent with the results
10 of a literature synthesis that was published in the BMJ a
11 few years ago by the NHS group, in which they argued that
12 the better the researchers adjusted for severity of
13 illness, the smaller the observed volume/outcome effect.

14 So I would posit that perhaps in this case of
15 CABG, what we're seeing is that this instrumental
16 variable is actually capturing otherwise unmeasured
17 quality effects. Distance, in particular, may be a
18 measure of quality -- of severity of illness, I'm sorry.
19 The patients who come from longer distances tend to be
20 less severely ill patients. And so in some ways, that IV
21 may be capturing severity of illness in a way that
22 doesn't otherwise get into the model.

23 I don't know. That's just speculation. But
24 I'm just a little bit puzzled because of the fact that
25 more recent literature, literature looking at severity of

1 illness more carefully, suggests that the volume/outcome
2 relationship for CABG in particular may be dwindling.

3 DR. BARTLETT: Other comments? Yes, go ahead,
4 Meredith.

5 Dr. ROSENTHAL: I'd just like to follow up on
6 some comments that have been made, and address it to Dan
7 or anybody else who wants to address this. It's sort of
8 the question of what is it that hospitals compete on?

9 And, for example, why would you expect higher
10 quality in whatever way you might find it for AMIs? Is it
11 because patients are sensitive to it? Is it because
12 plans are sensitive to it? Or, as was suggested -- we
13 haven't talked too much about that -- referring
14 physicians may be sensitive to quality?

15 Because depending on which mechanism you think
16 it is, then I was trying to think how the FTC might
17 generalize up from your excellent results that look at
18 AMI. You know, when they look at a hospital merger, they
19 want to know more than just AMI, of course.

20 And so should they look at the competition for
21 sort of the least common denominator? Because Patrick's
22 description of what happened in UC Davis sort of made me
23 start thinking, well, maybe what matters is, is there a
24 service for which there is zero competition, and that's
25 how concentrated the market is, so, for example, where

1 they were the only trauma hospital in the market; or
2 should we be thinking about these things sort of -- and
3 that sort of goes to competition for the contract.

4 So then competition for patients wasn't really
5 the relevant measure to understand how competition might
6 affect overall quality there. That's a lot of stuff, but
7 any thoughts on that? Sort of how hospitals compete. Or
8 anybody else.

9 DR. KESSLER: My response? I mean, I think a
10 large part of the answer is that there's plans to go to
11 the earlier part of your question. In earlier work that
12 I did with Mark, with Mark McClellan, what we found was
13 that the quality effects that Marty talked about earlier
14 were more pronounced in areas that had high managed care
15 penetration.

16 I don't think that you've got, I mean, a
17 tremendous amount of mileage from patients choosing their
18 hospital of AMI. I do think that there are other
19 mechanisms besides plans, though.

20 I think that doctors have some information on
21 the quality of different hospitals, and when there's
22 competition among hospitals, I think that that, you know,
23 both gives them more choices and lets them -- you know,
24 lets them better match to their patient needs, and gives
25 hospitals incentives to improve.

1 So, you know, I think probably the providers
2 and plans are more the story than patients. But I don't
3 have hard evidence on that.

4 DR. BARTLETT: Marty?

5 DR. GAYNOR: This doesn't get at this directly,
6 but actually a paper that didn't get up in my slides,
7 unfortunately, is a paper by Abigail Tay that Dan
8 certainly knows, which estimates which hospital AMI
9 patients go to based on hospital characteristics,
10 including outcomes, and finds that these things do have a
11 big kick.

12 It doesn't directly answer the question of sort
13 of who is the deciding entity or which amalgam of
14 doctors, patients, and plans are. But it does provide
15 evidence that at least gets a little bit more at this
16 question.

17 DR. ROSENTHAL: Sorry. Can I just follow on
18 that? So if you think that referring provider or
19 patients or some combination of that matters as well as
20 the plan level, so does that mean that we should look at
21 Herfindahls across a bunch of DRGs, weighted by patient
22 volume or importance? Or what does that imply for what's
23 important to make a judgment about a particular merger?

24 DR. KESSLER: I mean, I don't think you can --
25 I mean, the only way to aggregate across service lines to

1 evaluate a merger is to calculate the welfare gain or
2 loss from the merger for each service line. I mean, I
3 realize that is an impossibly complicated standard, but
4 beyond -- you know, I don't know what else to say, kind
5 of. Maybe pick the three most important ones and focus
6 on those. Hearts, you know, whatever the -- babies, and
7 something else.

8 DR. BARTLETT: Any last comments before we
9 break and then we move into the next segment? Warren,
10 how about I give you give the last --

11 DR. GREENBERG: I'd just like to -- it's really
12 a question. Do we have any data at all on physician
13 referrals? Are there data available on physicians
14 referring to certain hospitals at all? I just don't
15 know. I haven't seen it, but I don't know all that --

16 DR. CASALINO: Hasn't the New York cardiac
17 surgery data shown that referring physicians have not
18 changed their pattern in response to the publicized data?

19 DR. GREENBERG: I haven't seen it.

20 DR. CASALINO: Yes. My understanding of the
21 results from New York is that the worst hospitals
22 improved, but not because volumes shifted at all. And in
23 particular, there was no evidence that cardiologists or
24 primary care physicians were changing their referrals in
25 terms of the publication of the data. Bad hospitals

1 didn't lose patients, didn't lose volume; good hospitals
2 didn't gain volume.

3 Nevertheless, the bad hospitals improved,
4 either because of regression to the mean or, more likely,
5 from the qualitative data because they thought, we'd
6 better improve. We might lose some volume. But, in
7 fact, they didn't.

8 DR. BARTLETT: Would you folks join me in
9 thanking our presenters and our discussants?

10 (Applause.)

11 DR. BARTLETT: We're remarkably on schedule.
12 Let's take a quick 10-minute break, just actually to
13 gather energy rather than to dissipate it. Come back to
14 the fourth segment, which is really looking at a future
15 research agenda. We're going to kick off by hearing from
16 a couple people who'll talk about research needs from an
17 FTC perspective.

18 (A brief recess was taken.)

19 DR. BARTLETT: The final part of our agenda is
20 to take a look at a research agenda for the next
21 generation, as it says here. I don't want to give you
22 the impression that we're missing the fact that we've
23 already had a full host of good ideas out there, put out
24 there on the table. We'll add to that, and we'll look
25 for some additive discussion.

1 But I'm looking forward, as I know other folks
2 are, for kicking off the segment of the agenda by hearing
3 from our friends from the FTC to talk about research
4 needs and priorities from their perspective.

5 So I'd like to turn the floor over, the same
6 way we've done it with the discussants earlier in the
7 session, first to David Hyman; then, Michael, we come to
8 you, Michael Vita; and then Bill, we'll come your way for
9 thoughts that you might have to share with us about
10 future research needs.

11 All yours, David.

12 DR. HYMAN: Thanks. I want to start by
13 thanking AHRQ and Peggy for their hard work in putting
14 this together. Although it says AHRQ/FTC up at the top
15 of the first page, I think our contribution has been
16 limited to providing the physical facility and claiming
17 credit. So it's nice to free ride for a change; having
18 put on about 15 of these in the last three or four
19 months, I know how hard it is. And Peggy's made it look
20 easy, which is even harder to do.

21 I guess the next point I think I'm supposed to
22 make, the obligatory disclaimer, which is -- and I guess
23 I don't know whether I have to make a disclaimer.

24 VOICE: Everybody does. You don't mean it.

25 DR. HYMAN: Let me make the disclaimer on

1 behalf of myself and the two subsequent speakers from the
2 FTC so they don't have to use up their time doing it,
3 which is, we're speaking for ourselves, not for the
4 Commission or any one of the commissioners. And given
5 what I have to say, I think you'll --

6 DR. BARTLETT: David, do me a favor. Just not
7 to get the disclaimer on the record again, but pull that
8 mike a little closer to you.

9 DR. HYMAN: I'm certainly not repeating it.
10 But I think you'll see the logic of the disclaimer when I
11 go through my remarks.

12 Just an initial prefatory remark, which is,
13 around here we talk about competition policy or
14 competition law. To us, that means really two distinct
15 bodies of law, antitrust and consumer information or
16 protection. And a lot of the discussion has, I think,
17 implicitly assumed an antitrust context for the use of
18 the health services research and information about
19 quality.

20 It's important to remember consumer information
21 and consumer protection as an adjunct, its own free-
22 standing body of law, and its own opportunities for
23 addressing anticompetitive conduct. And I'll come back
24 to that.

25 I've got, I guess, bad news and good news. The

1 bad news, which you've already heard from a couple of the
2 prior speakers, is that the literature on quality and
3 most of the research really hasn't factored into
4 competition law and policy in the last, you know, 20, 25
5 years of use, engagement of competition law with the
6 healthcare sector. And that's why the article that Bill
7 Warren and I wrote had described it as the forgotten
8 stepchild of health care, quality.

9 The good news from the research perspective is
10 that means it's virgin territory. There's lots of things
11 to be done. There's lots of interesting projects to
12 pursue. And instead of saying, "Me, too," you can say,
13 "I'm here first."

14 But the bad news too is that -- and the
15 unpleasant reality is for lots of cases in competition
16 law, quality research is not going to be dispositive.
17 It's going to make a difference at the margins, but it's
18 not going to be the core issue. And that's because it
19 really just won't make a big difference in the case at
20 all, or it will offer a better justification for some of
21 the existing practices.

22 But even there, I think translation problems
23 from the research to policy are going to be daunting,
24 particularly given some of the differing perspectives in
25 the room as well as in the larger world on what we mean

1 by quality.

2 Now, there's a whole bunch of empirical claims
3 in there, so let me just go through a couple of them.
4 Why hasn't it mattered in the past and why do I think
5 it's not likely to matter that much in the future for
6 lots of cases?

7 A couple of ways of slicing the data. The
8 first is, competition law has both private and public
9 litigants involved, or plaintiffs. On the private side,
10 you've already heard from the work that Bill and Peter
11 have done. Most of those cases are exclusive contracting
12 and privilege cases.

13 And those cases are not about quality. And
14 health services research, as a practical proposition,
15 isn't really going to add very much to that. Those are
16 straight economic foreclosure cases, and they get framed
17 that way. And even if quality enters into it, it's
18 quality at the level of a single individual provider, and
19 you're unlikely to have the research available on a
20 realtime basis to get involved in that case.

21 On the public side, most of the cases other
22 than hospital cases and pharmaceutical cases, which we
23 haven't really touched on at all, are resolved with
24 consent judgments or with advisory opinions or business
25 review letters. That's the Department of Justice version

1 of advisory opinions.

2 And you get consent judgments either because
3 the conduct in question is a per se violation of the
4 law -- that means it's overt anticompetitive conduct,
5 indefensible under the law. Okay? Turn your back on
6 physicians, they'll start price-fixing. That's the way
7 the market works and that's why we have per se rules in
8 order to cut through it and resolve these things quickly.

9 Even if it isn't a per se violation, if it's a
10 rule of reason case, it's usually very costly to defend
11 these cases and it's usually cheaper -- it's always
12 cheaper and it's usually economically sensible to settle
13 the case rather than contest it. The exceptions are
14 where the defendant has a fair amount of resources and it
15 thinks it's got a good shot if it's willing to stay the
16 course.

17 And that's why hospitals play out very
18 differently than physician cases in competition law, and
19 hospitals do much better, partly because of -- I think
20 there are a variety of reasons, some of which have been
21 touched on already.

22 But there aren't very many hospital cases. I
23 actually went back and looked, and in the last 20-odd
24 years, the Commission has brought 20-odd cases against
25 hospitals. Add in the Department of Justice, you pick up

1 a couple more. The state attorney generals, a couple
2 more. All fifty states, one and a half a year maximum.

3 DR. CASALINO: Do you know how many consents?

4 DR. HYMAN: Consents against hospitals?

5 DR. CASALINO: Yes. How many times has it been
6 settled before going to court?

7 DR. HYMAN: Well, consents, I actually didn't
8 look at consents against hospitals. Consents against
9 physicians, we have, I think, six in the last year --
10 actually, in the last six months. And that tends to wax
11 and wane as well, depending upon what else is going on in
12 the market. But the frequency is just much higher for
13 physicians for some of those reasons.

14 The other problem, which I think has been
15 alluded to already, is a lot of the health services
16 research focuses on problems at a level that isn't
17 necessarily the same level as what's in dispute in the
18 cases. And even if you could structure a study to do it
19 at the correct level, having it in time for the dispute
20 that you're actually going to have to resolve is another
21 matter entirely.

22 And I think that emphasizes another point,
23 which is that competition law tends to be transaction-
24 oriented. It's very flexible, but it flows from
25 sometimes conduct, sometimes transactions that are

1 proposed. But it isn't an ongoing regulator of what's
2 going on in the market in quite the same way that, say,
3 Medicare is or a state licensing authority has the
4 potential to be. It gets involved on a very periodic
5 basis in what's going on in the market.

6 Now, there is one other -- one factor that I
7 think suggests that the agencies are going to be
8 interested in quality. Certainly, you heard the Chairman
9 talk about his interest in the importance of quality.
10 And I think that flows both from the agency's desire to
11 be on the right side of these issues, and also its desire
12 to look like it's looking at the right things under the
13 circumstances. All right?

14 No matter what, providers engaged in
15 anticompetitive conduct will argue, we're only doing this
16 to ensure maximum quality. All right? It's their first
17 and best defense, and the per se rule cuts it out. But
18 if you're on the other side of that, you don't want to
19 concede that ground. You want to say, we're in a
20 position to look at the quality data.

21 And the challenge here is to come up with a
22 model and sufficient data to operationalize the model to
23 allow the agencies, I think, more than the private
24 parties to meet those challenges.

25 Now, institutional competence is going to be an

1 issue. It's an issue partly because the agency is -- I
2 think the Chairman said is perceived to be an expert, but
3 it's certainly not an expert in health services research.
4 And even when it tries to implement its expertise, it's
5 going to be looking for relatively simple rules of the
6 sort that Peter had described previously.

7 Certainly, if it has to persuade an Article 3
8 judge to do something or not do something, it doesn't
9 want to come in with very complicated econometrics if it
10 wants to win, which is part of the reason why we're
11 looking -- doing a hospital merger retrospective
12 currently.

13 And if results come out of that that indicate
14 there's anticompetitive conduct in the hospital market,
15 we'll be looking to pursue those administratively with an
16 administrative law judge within the agency rather than
17 going back to district court where we're 0 for 7.

18 So what are the challenges? I don't want to
19 suggest that it's all bad news all the time. I think
20 there are opportunities here both for research and for,
21 even more importantly, dissemination strategies. We've
22 actually spent a lot of time talking about research and
23 not nearly as much talking about dissemination, and I
24 think we may want to rethink that balance if we want the
25 health services literature and what we know about quality

1 to really have an impact.

2 The first challenge for both research and
3 dissemination has been touched on already. It's the
4 fundamental distinction between the way in which
5 providers and health services researchers think about
6 quality and the way that economists and antitrust lawyers
7 think about quality. Several people have mentioned this
8 already.

9 This is part of a sort of larger and ongoing
10 debate. When professionals talk about collaboration,
11 antitrust lawyers hear collusion. Okay? And I think
12 Bill Vogt actually had a sort of wonderful example of
13 this.

14 He talked about the problem of addressing
15 quality by "whacking off the bottom," the low-performing
16 providers, that that was not going to be a good thing.
17 And I sort of looked around the room at the people who
18 were health services researchers and, even more so,
19 physicians, and saw them shifting uncomfortably in their
20 seats because for providers, quality is a binary
21 operation.

22 You either have it or you don't, and if you
23 don't have it, you ought to figure out how to get it, and
24 if you can't figure it out, you shouldn't be providing
25 healthcare services, is sort of the big picture thing.

1 Now, all of these performance-based approaches
2 to try and move people are based on the notion that
3 there's high quality and there's unacceptable quality.
4 That's really the binary approach. The economists and
5 the antitrust lawyers essentially view it as just another
6 term in the transactions.

7 You ought to be able to get, as Mark puts it
8 periodically, last year's medicine at last year's prices.
9 And someone may well want to buy that, and we ought to
10 make it available to them. This is a fundamental
11 distinction in the way that I think the different
12 professions look at quality.

13 Second is, I think -- and this goes back to the
14 point I made in the morning -- it's a good idea to try
15 and come up with measures that people care about, that
16 consumers care about. Okay? A big part of the problem
17 with measurement that we heard alluded to already is that
18 the providers won't cooperate. They engage in a group
19 boycott.

20 If the measures are measures that people
21 actually care about, it's going to be very hard for
22 providers to play that game because you can just see the
23 newspaper ads. We wanted to tell you which hospital is
24 better for you, but the hospitals won't cooperate.
25 Nobody is going to want to take that hit. When it's

1 something like, we want data on how quickly you get such-
2 and-such drug after you arrive with such-and-such
3 condition if you have the following confounding
4 conditions, very hard to sell that.

5 So I think an important challenge for health
6 services research is to come up with good measures that
7 people actually care about. And the tradeoff here is
8 sort of between validity and utility.

9 The last one which I think is something
10 important, and just take another second here, is
11 Medicare. Medicare -- I mean, we've heard some talk
12 about 800-pound gorillas and 1600-pound gorillas.
13 Medicare is that sort of squared or cubed or, you know,
14 logarithmically enhanced.

15 And Medicare eliminates the market for some
16 things. It has spillover effects that limit or make it
17 extraordinarily difficult to have a market in other
18 things. But it's simultaneously a huge opportunity for
19 enhancing quality through whatever you want to call it,
20 prudent purchasing, information dissemination.

21 And part of the challenge for the people who
22 spend their time doing quality -- and this is in the
23 time-honored tradition of, stop looking at the Commission
24 and go look at CMS -- persuading Medicare to use its
25 purchasing power to enhance the competitiveness of the

1 markets. Whether that entails scrapping the
2 administrative pricing system is, of course, a different
3 question entirely.

4 But I think even with that, there are changes
5 you can do that will ensure that the, you know, hundreds
6 of billions of dollars that get spent by Medicare will go
7 to make more competitive markets, not just for Medicare
8 beneficiaries but for everybody.

9 DR. BARTLETT: Thank you, David.

10 Michael, we'll go to you.

11 DR. VITA: Yes. Thanks. I'll avoid the
12 disclaimer. I talk only for myself, and maybe not even
13 that.

14 As I was preparing for the conference, I wasn't
15 terribly familiar with the literature on competition and
16 quality. So it was a real opportunity to take a look at
17 it, see what people had found.

18 And as I began to read some of the things that
19 were submitted, I thought it sort of both comforting and
20 also a bit puzzling, comforting in that there seemed to
21 be, in a lot of the studies, a fairly reliable
22 relationship between the kind of measures of competition
23 that we rely on, the antitrust analysis, and a variety of
24 different clinical outcome-based measures of quality.
25 And that seems like a pretty good thing, and I think

1 everybody probably wouldn't argue against the proposition
2 that that's a good thing.

3 But as I thought more about it and thought
4 about -- and sort of thinking about it from the
5 perspective not only as an antitrust economist but also
6 as an economist who works at an agency where we're very
7 interested in the mechanisms by which information is
8 conveyed to consumers, it wasn't obvious to me how the
9 information -- how the competitive process would work to
10 induce the supply of that kind of outcome. Because those
11 types of outcomes, I suspect, are not that easily
12 observed by the decision-makers. Or they may be,
13 depending on who the relevant decision-maker is.

14 I mean, basic economics tells us the provider's
15 incentive to provide quality, whatever that measure of
16 quality is, is basically determined by the additional
17 revenues, additional marginal profits, that it would earn
18 by incurring the costs producing the higher quality.

19 And so the incentives to produce it, to provide
20 whatever the relevant measure of quality is, is going to
21 be a function of the ability of the provider to credibly
22 convey information about that quality to the consumers or
23 the decision-makers who value it.

24 And following that line of reasoning,
25 competition is going to induce firms to supply outputs or

1 quality levels that are easily observable, and could also
2 supply quality attributes that are less easily observed.

3 And as I looked through -- I was looking
4 through the materials Ryan Mutter from AHRQ had prepared
5 on, and looking again at sort of these different measures
6 of quality that are used in a lot of these competition
7 quality studies, again, my immediate conjecture was the
8 typical consumer, if the consumer is the patient, can't
9 easily observe those sorts of things absent some special
10 kind of institutional mechanism that I'll speak to in a
11 minute that would allow them to assess those levels of
12 quality.

13 And there's some research that suggests that
14 people don't observe those things very well. There's a
15 recent paper in the 2002 RAND by Frank Sloan and several
16 of his colleagues suggesting that when hospitals are
17 converted from not-for-profit to for-profit status, the
18 inability of consumers to actually measure or to observe
19 with any degree of accuracy the clinical quality of the
20 hospital leads to diminished quality and higher -- and
21 poorer measures of performance on various measures of
22 mortality and morbidity.

23 So I think, you know, as I look at this
24 research, I think it's very interesting. But I think to
25 make it completely convincing, and completely convincing

1 to an agency like the FTC, it has -- I would like to see
2 some corroboration of the finding with some fleshed-out
3 detail on how -- who makes the decisions and how do those
4 decision-makers form expectations about quality.

5 A few days before this conference, I sat down
6 and read Dan Kessler's paper that he wrote with some --
7 that was just published in the JEPE on healthcare report
8 cards, and I found it very interesting. Because that --
9 you know, that's a specific institutional mechanism by
10 which fairly complicated information about quality could
11 be conveyed to consumers.

12 And what the paper found is that both providers
13 and consumers react to it, in some ways that are good,
14 that involve better matching of consumers with providers.
15 Also, it precipitated some adverse selection behavior as
16 well, which potentially, you know, is probably not
17 desirable.

18 So I guess, you know, if I was to give you a
19 list of the sort of things that -- the sort of general
20 kind of things I think people should be looking at as
21 this research has continued, I would like to see more
22 information, more research done on how consumers -- to
23 start with, patients -- form expectations about quality,
24 and see how quickly and how accurately those perceptions
25 of quality react to the kinds of changes in quality that

1 some of these papers have found.

2 You know, is that information transmitted
3 accurately and quickly, or is there a very slow reaction
4 time? And maybe people don't react at all.

5 Similarly, to the extent that physicians are
6 the relevant decision-maker here, again I'd like to see
7 what physicians know. I mean, how quickly does their --
8 do they incorporate information about changes in quality
9 that might be induced by a change in market structure,
10 and how does that affect their -- you know, their
11 admissions behavior?

12 One of the other panelists over there said the
13 information on the New York experience suggested that
14 they may not react very well at all. They continued
15 to -- they referred people to bad hospitals before the
16 information came out, and continued to refer people to
17 some of the same hospitals after the information came
18 out.

19 And that's not particularly comforting if
20 you're relying on the expertise of physicians to make the
21 decisions for you and they don't -- and they're the
22 experts but they don't take into account the information.
23 You have to wonder, then, who will?

24 Similarly, I'd be interested to know if the
25 quality -- you know, to the extent that physician

1 referrals are the relevant mechanism for channeling
2 people to higher quality institutions, how does that
3 relationship between quality and competition vary
4 depending upon the level of integration with
5 physicians -- between physicians and hospitals?

6 There is some recent research that suggests
7 that when there is substantial integration between
8 physicians and hospitals, it can lead to distorted
9 incentives. And I can just say, you know, without
10 getting into too many details, some of these hospital
11 merger retrospectives that we're currently undertaking at
12 the FTC, we found one case where concurrent with the
13 merger with a local hospital rival, the hospital in
14 question also was actively engaged in the policy of
15 acquiring a lot of physician practices. And looking at
16 the documents of the hospital, it was clear that a
17 principal motivation for doing that was to increase the
18 flow of referrals.

19 So to the extent we're relying on expert
20 physician opinion to channel people to high quality
21 hospitals, to the extent there are these other factors at
22 work, it would be nice to know how that affects things.
23 And again, generally, it would be also interesting to
24 know how quickly physicians incorporate information about
25 quality, even assuming that they're neutral arbiters of

1 hospital quality.

2 I would like to know to the extent -- you know,
3 getting back to the issue of, you know, what can people
4 observe and how can they act on the information, earlier
5 several of the panelists talked about how the focus might
6 be more on sort of the provision of hotel services by
7 hospitals versus quality of care.

8 And it would be nice, you know, if Dan or
9 somebody else could follow up on the research he's
10 already done. Looking at the markets where there are
11 health care report cards, does that cause more of a focus
12 by hospitals on clinical type measures of quality as
13 contrasted with nonclinical measures? You know, it would
14 suggest that since people would react more to clinical
15 quality in those environments, that that would induce a
16 change, and that would be a very interesting thing to
17 know.

18 Two more points, quickly. Not much was said
19 today about how the makeup of the market in terms of not-
20 for-profit and for-profit providers affects the provision
21 of quality. But again, there is some research that
22 suggests -- the Sloan paper that I referred to earlier --
23 that not-for-profit hospitals may in fact provide
24 different levels of quality from for-profit hospitals.

25 And another paper in that same issue of the

1 RAND by Mark Dugan suggests that when not-for-profit
2 hospitals compete closely in a geographic sense with for-
3 profit hospitals, they begin to look very much like for-
4 profit hospitals. So to the extent -- that particular
5 paper, I think, was looking more at some measure of
6 price, but you would expect the same sort of thing to
7 happen on non-price dimensions as well.

8 Lastly, I had one specific suggestion for the
9 studies, the studies of hospital consolidation, how that
10 affects quality. I think those kinds of papers are
11 really important because those speak directly to the kind
12 of issues that we're concerned with here at the
13 commission. You know, how does the world change when
14 there's a merger-induced change of market structure?

15 I don't know if you're already looking at
16 this. I wanted to ask you about it before but I didn't
17 get a chance to. But there's a recent paper by Dranove
18 and Lindrooth looking at how cost changes -- you know, do
19 mergers between competing hospitals generate cost-based
20 efficiencies?

21 And one of the things they found was that a
22 really important determinant of whether or not there was
23 cost-based efficiencies was whether or not the license of
24 the hospitals were merged. Because that's what allowed
25 the kind of transfer of assets and the transfer of

1 operations that facilitated volume-related cost
2 differences.

3 To the extent volume is a driver of quality,
4 you would expect to find the same sort of thing. And so,
5 you know, I don't know that any -- there aren't a lot of
6 previous papers in this literature. I don't know that
7 anybody's sort of broken it down and looked at it in that
8 level of detail. But I would suggest that, you know, in
9 your paper, that that's something. If you can get data
10 on that, you focus on that. And that could be a pretty
11 important explanatory variable.

12 And that's it for me.

13 DR. BARTLETT: Thanks, Michael.

14 Bill Vogt?

15 DR. VOGT: So to start with, I include herein
16 by reference David's disclaimer.

17 And I think that I'll start off by giving an
18 incredibly compressed description of what happens in an
19 analysis of a merger. So what happens, say, when two
20 hospitals want to merge is that they notify the federal
21 antitrust authorities, hey, we want to merge. And the
22 federal antitrust authorities then decide either they're
23 going to challenge it or they're not.

24 When they go through deciding whether or not
25 they're going to challenge it, and then later when the

1 judge or the administrative law judge tries the case,
2 they go through an analysis of whether or not this merger
3 will be a bad thing. And that analysis traditionally
4 takes the form of defining a geographic and a product
5 market, counting up how many firms there are in the
6 market before the merger and after the merger, and
7 asking, did the number of firms go down enough to make us
8 think there's a competitive problem?

9 And then at the end, if the answer to that
10 question was yes, the number of competitors went down too
11 much, the other side gets to say, well, there are
12 efficiencies which will be passed along to consumers so
13 consumers won't be harmed, or a variety of other
14 defenses.

15 Central to that process, and the thing that's
16 usually most contentious, is the definition of the
17 market, so the definition of the product market and the
18 definition of the geographical market. And that
19 definition invariably turns on estimates of demand.

20 Now, they may not be econometric estimates of
21 demand produced by economists, but instead they'll be
22 practical indexes of demand that the court finds
23 persuasive. So that's my first brief for the centrality
24 of demand to the actions of the antitrust law.

25 There's another way that these analyses

1 sometimes go, which is to do a much more econometric-
2 intensive investigation and to estimate a model of
3 competition in the industry where the merger is going to
4 happen -- in the hospital industry, it would be here,
5 although this hasn't been done in the hospital
6 industry -- and then to simulate what would happen were
7 these firms to merge.

8 This also places an estimate of demand at the
9 center because in order to estimate what will happen when
10 these two firms merge, we have to know to what extent did
11 the products of those two firms compete with one another
12 before the merger happened? And to know that, we have to
13 know about demand. We have to know where these two
14 products -- were these two firms' products substitutes
15 for one another? If they were strong substitutes for one
16 another, then prices will probably go up a lot when the
17 merger happens. So again, by that method of analyzing
18 merger, demand is central.

19 So the first thing that I'd like to suggest
20 that AHRQ focus on in thinking about what kind of
21 research it wants to fund that would be relevant to
22 competition policy is research on demand, and in
23 particular, on how quality affects demand. This is a
24 literature that is small. There are very few papers that
25 look at this question of how quality affects demand, and

1 most of this literature is really quite unpersuasive.

2 So there's another reason that we might be
3 interested in -- or another way of thinking about why we
4 might be interested in demand. So there are two kinds of
5 issues surrounding demand. So one is sort of what I'll
6 call gross issues of how quality affects demand.

7 And the gross issue of how quality affects
8 demand is, are the people sitting around this table who
9 have expressed grave skepticism about whether quality
10 influences demand at all are right? If the truth is that
11 a hospital improves its quality and it has absolutely no
12 impact on the demand for its services, then antitrust
13 analysis need not really think about quality very much
14 because if the elasticity of demand is zero, surely it's
15 not going to get less than zero after the merger happens.

16 There are also fine reasons why an analysis of
17 the effect of quality on demand is important. And to
18 talk about the first one, I'm going to be sort of a lone
19 voice in the wilderness in this discussion defending what
20 Peter Hammer described as the usual antitrust doctrine on
21 quality, which is, if you get price competition right,
22 you don't have to worry about quality.

23 There is a version of quality competition where
24 that's exactly right. If you imagine a world in which
25 everyone's preferences are pretty much homogeneous about

1 quality, everyone pretty much agrees that reducing my
2 chance of mortality by one percent is worth \$10,000, then
3 that usual antitrust doctrine is exactly right.

4 A monopolist is going to increase the quality
5 of his service right up until it would cost him \$10,000
6 to increase the quality of his service by one more
7 percent. A competitor will do the same thing. A
8 duopolist, a triopolist, will do the same thing.

9 So in cases where consumers can all agree with
10 one another on how much quality is worth, there really
11 isn't much of an antitrust problem, except in the case of
12 administered pricing when the monopolist or competitor
13 can't pass along the improved quality in the form of
14 price.

15 So for that reason, it's interesting to know
16 about how quality affects demand. There's also a second
17 fine-grained point, which is, if we were to estimate the
18 effect of quality on demand and find that it was
19 heterogeneous so that there actually is something
20 interesting about the analysis of quality in an antitrust
21 case, then what's going to happen in a model where firms
22 are -- sorry, where consumers are heterogeneous in their
23 evaluation of quality is that firms are going to pick
24 different places in price quality space to position
25 themselves.

1 Well, mergers among such firms are going to --
2 the desirability of mergers among such firms are going to
3 be different depending on whether they're close or far
4 from one another in this quality space.

5 Two high quality hospitals merging is likely to
6 be a much bigger competitive problem than a high quality
7 and a low quality hospital merging because the high
8 quality and the low quality hospital don't share any
9 patients -- any potential patients in common. The low
10 quality -- people who like low quality are going to the
11 low quality hospitals; people who like high quality are
12 going to the high quality hospitals.

13 So that's my brief for demand. AHRQ should
14 fund lots of studies of how quality affects demand. Both
15 does it affect it in general, and are consumers
16 heterogeneous, whoever consumers happen to be, in their
17 evaluations of quality? Exactly how does that
18 heterogeneity work?

19 The second thing is the efficiency defense, aka
20 the volume/outcome relationship. So as I said, in these
21 merger analyses, right at the end of the analysis, if the
22 government has done a good job of showing that the merger
23 shouldn't happen, the merging parties get to try to
24 argue, oh, no, well, we are going to get market power,
25 but we're going to generate these huge efficiencies by

1 the merger which will make us not want to increase our
2 prices, or which will cause us to produce really high
3 quality output which will offset the effects of the price
4 increase. Okay?

5 And in hospital cases, the government loses
6 sufficiently early on in this chain of reasoning that
7 they go through that the efficiency defense hasn't come
8 up very much. But in some imaginary world where the
9 government did really well in these cases up until the
10 efficiency defense, it's I think pretty clear that the
11 volume/outcome relationship would be a powerful argument
12 that the government would actually have to worry about
13 the merging parties making.

14 And let me give a back-of-the-envelope
15 calculation to illustrate that fact. So let's suppose
16 that we believe that the volume/outcome relationship is
17 all practice makes perfect, so that what will happen is
18 if two firms merge, their volume will double, and as a
19 result of that, their quality will go way up. The
20 strength of the volume/outcome relationship, as it's
21 typically estimated in the literature at this point,
22 really can't be overestimated. So let me give an example
23 of numbers that, you know, I've rounded off for
24 convenience, but are broadly representative of what the
25 literature on CABG, for example, says. And in

1 particular, the numbers I'm going to use are basically
2 between Bob's estimate and his instrumental variables
3 estimate. And they're only twice as big as his
4 instrumental variables estimate.

5 Suppose we had two hospitals, each doing 200
6 CABGs. If these two hospitals merged, the mortality
7 reduction caused by that merger would be on the order of
8 about 0.2 percentage points. 0.2 percentage points times
9 400 CABGs is .8 lines. And using a very conservative
10 estimate of \$5 million as the value of a human life, that
11 means \$4 million per year would be saved by this merger.

12 Four million dollars per year is pretty big as
13 far as an efficiency claim goes in a hospital merger
14 case. Furthermore, if you just compare it to the amount
15 of money spent on a CABG, so if we pick \$30,000 as a
16 halfway reasonable amount that a hospital is going to get
17 for performing a CABG, that's only \$12 million in
18 everyone that these two hospitals generate by CABGs. So
19 it would be a \$4 million efficiency on \$12 million in
20 revenue. All right?

21 And this is only looking at mortality, not at
22 morbidity. And it's only looking at CABGs, not all the
23 other procedures that hospitals do and which also there's
24 some evidence of a volume/outcome relationship on.

25 So it seems to me that the antitrust

1 enforcement authorities should be deeply interested in
2 the question of whether the volume/outcome relationship
3 is indeed practice makes perfect, in which case there's
4 actually a really good case for backing off on merger
5 enforcement, or whether it's selective referral, in which
6 case there's actually a case in the other direction, that
7 would show that demand indeed does respond to quality,
8 which means that we should pay a lot of attention to
9 quality competition.

10 So my two recommendations are: demand studies,
11 lots of demand studies; and figuring out whether volume/
12 outcome is selective referral or practice makes perfect.

13 DR. BARTLETT: Let's open it up. You know,
14 we've talked about lots of ideas for further research.
15 Let's leaven that discussion with what we've heard just a
16 few minutes ago. Larry, then Warren.

17 DR. CASALINO: Just a simple point which just
18 occurred to me in response to the last thing Bill said,
19 which would be pretty straightforward research to do.

20 The calculation you just made, Bill, of course,
21 depends on the institutions merging their cardiac surgery
22 programs. And it would be a very interesting study to do
23 to see, okay, after hospitals merge, how often do they
24 merge their cardiac services and various other services
25 where we would care about the volume/outcome

1 relationship. And my guess is we'd find seldom,
2 actually, which would be interesting for antitrust
3 regulators and judges to know, if indeed this argument
4 was ever made.

5 DR. VOGT: Although they could promise to do
6 it.

7 DR. CASALINO: They could promise, yes.

8 DR. BARTLETT: Warren?

9 DR. GREENBERG: I think someone early on --

10 DR. CASALINO: They could promise not to raise
11 prices.

12 DR. GREENBERG: -- made the comment -- oh,
13 okay. I think someone made the comment that every
14 industry comes into the FTC and says they're unique, and
15 therefore don't bring any anticompetitive action against
16 us.

17 Could I ask the people here, physicians,
18 economists, health policy researchers, people with the
19 government, to take off their healthcare hat for maybe
20 five minutes and say we're talking about mergers in the
21 toothpaste industry. And the Chairman says, I would like
22 to introduce quality into the equation, price, costs,
23 quality, into the toothpaste industry. Okay?

24 What would we -- maybe we could look at -- can
25 we just look at it this way for five minutes? What might

1 we example when a toothpaste manufacturer comes in and
2 says, they have striped toothpaste. That's appealing to
3 a lot of people. Another one says, we have fluoride.
4 Another one smells very good.

5 How do we inject -- looking at this without any
6 difference than 99 percent of the industries in the
7 economy, how do we inject -- what kind of advice can we
8 give the FTC on how to inject quality into the toothpaste
9 industry? Can we use some economic theory here? Can we
10 use survey data? What can we use?

11 I just thought for a second -- I'm not sure I
12 agree with this, but I just thought for a second, one
13 economic analysis we might be able to use is that maybe
14 high market shares indicate high preferences, strong
15 degree for quality. Of course, we have to hold prices
16 constant.

17 Therefore, mergers between firms with high
18 market shares, holding prices constant, maybe it's going
19 to be quality-enhancing, overwhelming any increases in
20 prices or increases in cost.

21 But would it be proper to ask people to spend
22 two or three minutes in the simplest industry that I can
23 think of, consumer industry, toothpaste, and ask what
24 kind of recommendation might we give the Chairman of the
25 FTC on injecting quality into a toothpaste merger or a

1 cereal merger or of this nature?

2 DR. BARTLETT: Any takers?

3 DR. VOGT: Can I ask a question about the
4 hypothetical?

5 DR. GREENBERG: Sure.

6 DR. VOGT: Are there 125 studies that say that
7 there are vast increases in toothpaste quality when more
8 is produced?

9 DR. GREENBERG: Yes. There have been studies
10 all along that say consumers enjoy the taste of a
11 particular toothpaste. Others enjoy the health content
12 attributes of a particular toothpaste. A whole broad
13 variety of reasons why people may select a particular
14 toothpaste.

15 DR. VOGT: Let me just make one remark. What
16 we would require of anyone, whether it's a hospital
17 making a volume/quality/efficiency argument, or a
18 toothpaste maker making some sort of a quality argument,
19 we would require for that claim to have any credibility
20 some good argument as to, you know, A, that the
21 efficiency could be gotten, and B, that it's merger-
22 specific.

23 And that's a standard to which we hold anybody
24 who comes in and makes an efficiency claim, whether it's
25 about quality, whether it's about cost. You have to

1 show -- you know, explain at some level of detail with
2 some supporting data that in fact, yes, this is a real
3 efficiency and we can really get it; and B, there's
4 really no other way to get it except through this.

5 And, you know, if the toothpaste maker could
6 satisfy those two prongs, you know, again speaking for
7 myself, not for the agency, I think the agency would --
8 you know, would attach some weight to that.

9 DR. GREENBERG: How much? How much weight
10 would you attach?

11 DR. VOGT: I can't say that. I mean, nobody
12 can say that. You know, it depends on the quality of the
13 evidence, the quality of the argument, and, you know, the
14 structure of the market. I mean, if it's a -- you know,
15 a lot of these -- you know, if it's a merger taking place
16 in a not too concentrated market, it doesn't take a lot
17 of efficiency to offset any incentive to raise price.

18 If it's -- you know, if we're going from, you
19 know, duopoly to monopoly, you'd need a lot and probably,
20 you know, you couldn't get there, I suspect, most of the
21 time.

22 DR. BARTLETT: Let's go to Mark. But before we
23 do that, can we just stipulate for the record that
24 everybody here from the FTC, all their remarks will be
25 preceded by the statement that they speak for themselves

1 and not for the commission? Just to take the pressure
2 off.

3 Go ahead, Mark.

4 DR. PAULY: I have a response which is semi-
5 serious. If you think that bigger is always better,
6 given cost -- which is that practice makes perfect,
7 bigger is always better, given cost -- then it also is
8 true that bigger is always cheaper, given quality. If
9 that's true, you have economies of scale and this is
10 obviously a case for regulated public utility. So the
11 FTC can withdraw and turn it over to an appropriate state
12 or federal regulatory commission.

13 And I think the serious part about that is,
14 that can't be right forever. That is to say, if there
15 are some economies of practice makes perform, they must
16 be exhausted at some point. And the fact that some firms
17 may or may not -- as we saw from some of the studies
18 here, more likely not than may -- but may be operating in
19 a range where improvements in volume do improve quality,
20 well, we just have to figure out where that curve stops
21 falling and turns up again.

22 I think that probably would be useful to do.
23 There must be diminishing returns at some point, and
24 maybe even, if nothing else, fatigue or boredom must set
25 in.

1 DR. BARTLETT: Thanks, Mark. I want to move to
2 Bill Sage. But let me also ask all of you to think
3 about, again, during the course of the day there were
4 lots of suggestions made about the type of research that
5 could be done.

6 We talked about research that really focused on
7 the welfare implications and changes in the marketplace.
8 We talked about, certainly on the measurement side,
9 refining measures in terms of competition and
10 concentration. There's a whole bunch of different
11 comments made there.

12 There was certainly, I think, generated from
13 Patrick's presentation, a real focus on quality --
14 improving quality measurement and the like. There was
15 discussion about testing the impact of paying for
16 performance and also looking at market conditions as
17 barriers that might preclude incentives from being put in
18 place.

19 So there are a whole host of different issues
20 and suggestions that were made during the course of the
21 day. What I'd like you all to do to help the researchers
22 and others in the room, to take those thoughts, take them
23 through the lens, through the prism of some of the
24 comments that we just got from our friends at the FTC,
25 and come back and say, well, given what we just heard,

1 maybe we'd modify X, or we'd shift the focus, or you've
2 got notions in terms of strategically how you might put
3 some of those pieces together. I'd love to hear it.

4 So it's a thought that I'd put out for anybody
5 who wants to pick up on it. Bill?

6 DR. SAGE: Your instruction has rendered
7 anticlimactic any response I was going to give to Mark.
8 I will say that I agree, but it's exactly Mark's
9 question, which has a lot of truth in it, that makes all
10 of this interesting.

11 You know, as I might have responded to Warren,
12 well, there wasn't 100 years of toothpaste professionals
13 telling us the market wouldn't work in toothpaste. And
14 there may be things that in the volume/outcome
15 relationship that tend toward a regulated public utility.
16 But we're not going that way exclusively, and we need to
17 figure out what the balance is. So that's my rejoinder.

18 My comment on research agenda, just to carve
19 out a small place for the law professors here, is that
20 there is a role, I think, for translational research
21 between the health services type research and the
22 economic modeling research and the legal institutions
23 involved.

24 And this really comes to David Hyman's
25 observations. In some ways, it's hard, but I don't think

1 at all impossible, to figure out how you incorporate this
2 research in antitrust practice. I actually think one
3 thing that's been sort of under-engaged in nationally is
4 judicial education. I mean, you don't need to take all
5 the cases away from those Article 3 judges. You might
6 just bring them to a place and explain to them how
7 certain types of cases work.

8 Another that is interest here is, I think, in
9 some ways it's ironic, as people have pointed out, to
10 have this discussion in this setting because most of the
11 arguments that are generated by this research are of the
12 greatest use to the defendant. But that, of course,
13 makes them extremely useful in the investigations process
14 even if they're not as useful in the direct enforcement
15 process.

16 It also, though, tends to the more regulatory
17 and less prosecutorial approach to antitrust enforcement
18 generally, which is one of those core legal institutional
19 questions that antitrust has to grapple with.

20 DR. BARTLETT: Bill has come back to, David,
21 your point about dissemination being important. And I
22 want to keep that as an open file, if others would like
23 to come in with suggestions in terms of what might be
24 effective dissemination of health services research that
25 might make sense in this context.

1 And I know, Peter, you've had some discussions
2 and some thoughts on that.

3 DR. HAMMER: A number of them are things I've
4 already mentioned throughout the day. But the important
5 thing, and this is one of the things that's exciting
6 about a meeting like this, is almost everybody here comes
7 from a different constituency.

8 I mean, you answer to different constituents.
9 You're asking questions that are relevant to who those
10 constituents are. And yet it's like the old story about
11 the elephant, we only see one part of it.

12 One of the exciting things is that a lot of
13 people have information that is useful to others, and
14 there's no communication or dialogue. And it may be
15 useful to sort of create an inventory of what that
16 multiple sets of audiences are.

17 I think the challenge that you're giving to
18 look at this through the prism of the FTC is to really
19 say, can I creatively think of ways to frame the
20 questions that I am interested in and identify areas
21 where that overlaps with the similar sets of questions
22 that others do?

23 And when I identify the overlapping frames, it
24 both gives me interesting sets of new research
25 perspectives and angles, but also obvious ways to

1 disseminate the information. Because if it's relevant to
2 the two audiences because the frames are overlapping,
3 then it gives me the sort of intuition to say, well,
4 then, I need to be speaking to these multiple audiences.

5 Bill's point about translation is very
6 important because you have to speak to them in different
7 terms. Right? We sort of start thinking of ourselves.
8 These are foreign languages when you're going through the
9 Donabedian structure -- you know, process/outcome type of
10 language, different from how an antitrust court thinks.

11 They have to get not only identification of
12 different audiences, but also think very seriously about
13 how you then translate these stories into forms of
14 information -- I think, David, it's also very important
15 emphasizing this -- that are useful to those people. All
16 right? So if it's not useful, they're not going to have
17 the time or patience to digest it, and it's not going to
18 have a policy impact.

19 DR. BARTLETT: Other comments? Other thoughts?
20 Yes. Go ahead, Bill.

21 DR. ENCINOSA: It seems like most of the FTC
22 people here are from antitrust. But are there any
23 consumer protection FTC people that might be interested
24 in AHRQ funding research on malpractice reform, liability
25 caps? I don't know what kind of interest FTC has, or if

1 they have any jurisdiction on quality issues that have
2 malpractice issues.

3 DR. HAMMER: I'm going to defer to Paul
4 Pautler, who's on the consumer protection side.

5 DR. BARTLETT: And I bet you Paul is just going
6 to speak from his own perspective and not on behalf of
7 the Commission. Right, Paul?

8 MR. PAUTLER: You are absolutely correct.

9 DR. BARTLETT: Come on up.

10 MR. PAUTLER: The FTC's approach to consumer
11 protection is generally, in some sense, the same as on
12 the competition side, informed choice, and has to do with
13 the problems that we deal with are deception and
14 unfairness.

15 Now, unfairness can be taken to be very broad
16 or very narrow. We tend to look at it fairly narrowly so
17 it's not -- on the consumer protection side, we aren't
18 trying to say that any particular type of medical
19 practice is unfair. We're usually looking at deception,
20 and as I think the Chairman talked about this morning, a
21 lot of the cases we've done on the consumer protection
22 side have been more advertising that goes over the top
23 for various healthcare remedies of one type or another.

24 Having said that, I don't think it's true that
25 the FTC's uninterested in these issues. But it's not the

1 kind of thing that we would have direct jurisdiction over
2 or the kind of things we've handled in the recent past.

3 DR. BARTLETT: Other thoughts? Yes, Larry?

4 DR. CASALINO: Yes. I need to withdraw my
5 earlier suggestion that Irene should fund research into
6 what happens after hospitals merge in terms of them
7 consolidating services because Gloria has very politely
8 informed me that she's already done that research. You
9 want to say what you found?

10 DR. BAZZOLI: Well, with an AHRQ grant that I
11 had a number of years ago, we did look at mergers just to
12 see what kind of reorganization/restructuring occurred
13 after merger. It was in health care management review.

14 But quite frankly, what we found is very little
15 restructuring. There's quite a bit of administrative
16 restructuring. That makes a lot of sense. The
17 administrative structures of two hospitals that come
18 together under one license are very -- they're
19 hierarchical. They're easy to streamline. What do you
20 need two legal departments for, two accounting
21 departments, that kind of thing, two CEOs? So that
22 part's easy.

23 But in terms of the clinical side, it gets back
24 to the clinical integration. You see very little
25 combining of departments -- cardiac surgery, I think, is

1 one that Larry brought up. That's been very difficult
2 for hospitals to merge.

3 And in some ways, that's why I think it's
4 really important to get a sense of what happens through
5 the merger because I'm not sure sometimes the volume is
6 combined. What if you have 1,000 CABGs in hospital A and
7 hospital B, and now you have 2,000 but they still are
8 1,000 in facility A and 1,000 in facility B? So you may
9 not really get much change that occurs through the
10 merger.

11 DR. CASALINO: It could be worse because the
12 surgeons are spending half their time fighting to not be
13 the part that gets consolidated into the other part. I'm
14 serious. That's a lot of what goes on in these
15 situations.

16 DR. BARTLETT: David, do I recall correctly
17 that you talked about the vast majority of the cases or
18 the issues that come to the Commission deal with
19 physicians rather than institutions or hospitals?

20 DR. HYMAN: I think I actually said the vast
21 number of cases that the Commission has pursued in the
22 sense of either, you know, voting out a consent judgment
23 with the defendants or actually litigating the cases. As
24 to the mix of cases that comes in the front door, I don't
25 think I said anything about that.

1 DR. VOGT: I have no idea how that breaks down.

2 DR. HYMAN: I mean, it's just a sort of
3 numerator/denominator problem -- not a problem,
4 observation. If you look at the number of mergers of
5 hospitals, last time I remember looking at the data, you
6 know, there were for a period of years seventy or a
7 hundred per year, some as high as 150.

8 And the Commission and Department of Justice
9 jointly issued what they call second requests, where they
10 sort of expressed additional interest to get
11 documentation in maybe 2 percent of those cases, and
12 challenged one a year.

13 DR. BARTLETT: Yes, Larry?

14 DR. CASALINO: Since the MedSouth opinion last
15 year where the FTC said, okay, you can negotiate together
16 because you're clinically integrated even though you're
17 competitors, has there been any notice of that taken
18 among physicians? Have you had any more physicians come
19 to you and say, hey, we want to do this, too?

20 DR. VITA: I don't know. I mean, my shop
21 doesn't do the physician cases, so I really couldn't say.
22 I don't know if you've seen them, Dave.

23 DR. HYMAN: Let me answer in the following way.
24 Physicians, you know, don't need an advisory opinion
25 unless they decide they want one. And if they're willing

1 to rely on the advisory opinion that somebody else has
2 gotten, they can go off and seek to do that as well.

3 I know there's been a lot of attention in the
4 antitrust press to the MedSouth advisory opinion, and
5 we've had complaints at the hearings by the payors that
6 they're unhappy with the advisory opinion. And I don't
7 think they would be bothering to complain unless they
8 were getting reaction in the marketplace from physicians
9 seeking to clinically integrate and then respond.

10 So I actually am not -- I don't think the
11 Commission comments on pending matters, and so I can't
12 really answer that part of your question. But physicians
13 don't need to seek their own advisory opinion to go off
14 and do that.

15 DR. BARTLETT: Go ahead, Marty.

16 DR. GAYNOR: Yes. Well, just coming back to
17 the question of some thoughts on research agenda, I can
18 think of a couple directions that are not exclusive.
19 One, my read is that most of the empirical evidence at
20 this point on quality has to do with hospitals.

21 And we have again what I called previously a
22 first generation set of studies that I think, of the best
23 studies, establish patterns between concentration and
24 measures of quality in a strong way. So in that area,
25 I'd concur with what Bill Vogt said a few minutes ago,

1 that the obvious next step is to peel things back and try
2 and understand much more clearly what the economic
3 mechanisms are that are driving those findings that are
4 underneath that.

5 And that means demand and supply is -- it's not
6 exactly right, but that's a way to think about it. And
7 that's not necessarily going to be an easy thing to do,
8 mind you. But I think that's what's called for and
9 that's critically important.

10 At the same time, I think there's not a lot of
11 evidence, if we divide healthcare up into hospitals,
12 doctors, and insurers, not that that's necessarily the
13 best or the only way to go, not a lot of evidence in
14 those other two sectors. Now, that may be a bit more
15 challenging, but not necessarily impossible. Certainly
16 there have been a lot of insurer-planned measures of
17 quality that have been collected, whether you like them
18 or not or what have you. I'm not venturing an opinion on
19 that. And there are some measures of market structure in
20 that industry that are available, although more work
21 needs to be done on that.

22 For physicians, I'm not particularly well
23 informed about the measures of quality. And I'm not --
24 on market structure, we can get reasonably, I guess,
25 decent counts of numbers or practices. But I'm not sure

1 how well that does or doesn't reflect market structure,
2 given that lots of practices are members of networks that
3 are not fully integrated firms and won't show up in
4 standard databases.

5 This may very well be something that Larry and
6 his colleagues know something about, have some opinions
7 about. So there, in those areas, we may be more in need
8 again of some first generation foundational basic facts
9 studies, where in the hospital industry, sort of trying
10 to get deeper and understand the more basic mechanisms
11 strikes me as an important next step.

12 DR. BARTLETT: Before we go to you, some have
13 been having a couple of sidebar conversations with Irene,
14 who we'll turn to in a few minutes to wrap things up.

15 But let's step back for a second. I think
16 we've had a wonderful set of discussions today around the
17 issue of competition and quality. We've heard
18 advancement of the state of the art, where we are in
19 terms of the research. We've heard some new research
20 pieces shared with you. We've already got some really
21 good feedback from the FTC folks about what their needs
22 would be in terms of carrying on their work.

23 What I'd like to do, and Warren, I'll come back
24 to you and maybe you can start us off. We had good
25 comments from folks right before we broke for lunch about

1 research needs. As a way of wrapping up, let me try
2 going around the room one more time, very quick comments
3 in terms of your individual take-aways from this
4 discussion, from all aspects of this discussion, keeping
5 in mind what we have heard from the FTC folks about
6 promising avenues, promising directions to pursue.

7 And just looking for kind of quick takes in
8 terms of what this might mean for AHRQ or anybody working
9 on health services research in this area. What are your
10 quick take-aways in terms of fruitful paths to pursue,
11 whether it be measure development, whether it be a
12 particular type of research, whatever it might be?

13 And Gloria, I'd be tempted -- you did such a
14 nice job the first time, I could start with you if you'd
15 like, or I can go someplace else.

16 DR. BAZZOLI: Yes, yes, yes. Okay.

17 DR. BARTLETT: Less than 30 seconds. I'd just
18 like to get some thoughts on the table.

19 DR. BAZZOLI: Yes. I'm very intrigued by
20 looking at the effects of quality on consumer demand. I
21 think there's been some promising work looking at quality
22 and hospital market concentration and mergers and things,
23 and I think we're taking some baby steps there in the
24 right direction.

25 But definitely an area that we don't

1 understand, and it gets to the information side as well
2 as just, you know, again, try and understand how
3 consumers define quality, react to quality, trade off
4 quality and price, I think that's really where research
5 is needed.

6 DR. BARTLETT: We'll go to Larry. If anybody
7 wants to take a pass, feel free. But we'll sort of take
8 a quick trip around the room. Larry?

9 DR. CASALINO: I guess two things -- one thing.
10 I would just reiterate what Marty said a few moments ago,
11 which is that there isn't much data on physicians. It's
12 hard to get data on physicians. Actually, we spent very
13 little time today talking about physicians, and that's
14 pretty much always the way it is because there is data
15 about hospitals. There's some data about health plans.
16 And that's what most people use because they want to take
17 data and do research on it. And there's just a lot more
18 physicians and a lot less data on them, but they are the
19 final common pathway through which care gets delivered.

20 I was going to say that funders should try to
21 make it worth researchers' while to do more research on
22 physicians, but actually I think the funders are pretty
23 on to this. I think that it's just much more labor-
24 intensive on the part of the researchers. You can't just
25 go get data and do an econometric analysis on it. So I

1 don't actually have a solution to that.

2 DR. BARTLETT: Bill?

3 DR. ENCINOSA: I guess basically we need to
4 fund research on how quality impacts the demand function
5 for inpatient, outpatient, and physician, and how they're
6 interrelated. Because if prices for certain inpatient
7 things go up, they might drop prices on the outpatient to
8 induce movement to the outpatient. There's all kinds of
9 these interactions that we usually don't fund research
10 on. So it would be good to get a universal picture of
11 the whole market.

12 DR. BARTLETT: Marty?

13 DR. GAYNOR: Well, I guess I already spoke to
14 this a minute ago. I just think, you know, AHRQ has
15 invested an awful lot over the past few years in
16 developing outcomes and quality measures, and that's
17 great. And I think we're now at the stage where a lot of
18 these measures have been developed to the point that they
19 can be used for analyses of functioning in markets. And
20 I think that's a great opportunity both for AHRQ and the
21 research community.

22 DR. BARTLETT: And as we go to Jeff, I want to
23 make sure that on our plate as we're thinking about a
24 promising direction, research measure development and
25 dissemination activities. Jeff?

1 DR. GEPPERT: Just a quick thought, that maybe
2 there's an opportunity to do some demonstration projects
3 around dissemination. There's, you know, a couple
4 different alternatives in terms of signaling quality,
5 doing report cards, having Medicare sort of experimented
6 with sort of a seal of approval.

7 There's, you know, contracting options, and
8 maybe Medicare could potentially try to look at some
9 alternative signaling approaches in some different
10 markets and look at what the impact is, how people
11 respond, consumers and providers and health plans, and
12 see what impact there is on demand with these different
13 approaches.

14 DR. BARTLETT: Warren?

15 DR. GREENBERG: I thought I'd just add a little
16 historical perspective because I don't want people to
17 leave here in a glum mood. But I remember being with the
18 FTC 25 years ago and trying to introduce market forces
19 and competition into health care, and people saying, you
20 can never have market forces or competition in this
21 industry. We can only regulate this industry. Are you
22 kidding? This industry is much different than any other
23 industry. And for good or for ill, look what has
24 happened over the last 25 years.

25 The same way, I must disagree, David -- I mean,

1 I don't have to even voice a disclaimer -- with your
2 point about quality will not be dispositive in antitrust.
3 I think there will be a time when quality will be just as
4 important as price and cost in antitrust analysis in the
5 health care sector.

6 DR. BARTLETT: Peter?

7 DR. HAMMER: The issue I would identify for a
8 research priority or part of the research agenda is
9 thinking much harder about mechanisms of facilitation of
10 market activity. I would identify, in response to
11 Warren's question, how is health care different, the
12 asymmetries of information and the complex agency
13 relationships make the facilitation process much more
14 difficult and hard to identify.

15 So there has to be a lot of thinking through
16 about not only what we mean by competition and quality,
17 but what are the various ways in which they are actually
18 interacting together? And that means we have to look at
19 payor activity, physician referrals, which has been
20 mentioned here as an important part, and then the
21 incentives in contracting practices and integration, and
22 those whole sets of things as the ways in which quality
23 and competition actually are going to be intermediated.

24 DR. BARTLETT: Ryan, you've had lots of nice
25 things to said about the work that you've done, so I'll

1 give you a chance to throw something in. And then
2 Patrick, so you don't complain that you're always last,
3 so we'll get to you next.

4 DR. MUTTER: Okay. Thanks. I think Patrick
5 made some really good points about the quality measures
6 we're using in our analyses. I think that's certainly an
7 area we need to continue to focus on.

8 One of the reasons that Herb and I chose the
9 patient safety indicators is to avoid some of the
10 econometric pitfalls that can plague this literature,
11 stuff like censoring, stuff like selection bias. So to
12 sort of continue to focus on that and to discuss that.

13 Another area I think is the social welfare.
14 We've mentioned that before, looking at both price and
15 quality. That's certainly important.

16 And finally, I'm just sort of curious. This
17 may be a way to look at solving sort of the
18 volume/outcome/causality controversy, and that is just to
19 look at grander causality, streams of volume and streams
20 of outcome sort of over time and see if that little tool
21 would provide any possible answer to that.

22 DR. BARTLETT: Patrick?

23 DR. ROMANO: Sure. I think that one component
24 that I think would be really interesting to investigate
25 further is really to understand better the interplay of

1 processes and outcomes in relation to competition and
2 consolidation.

3 So if we believe that consolidation reduces
4 quality and competition increases quality, then as a
5 clinician I'd really like to understand why. How does
6 that work? How does that happen? What specific aspects
7 of quality are affected? How does this actually lead me
8 as a physician to prescribe different medications or to
9 recommend different procedural interventions or order
10 different lab tests?

11 Those relationships are not transparent to me.
12 So I think it would be helpful, it would sort of tie
13 everything together better, if we really understood the
14 mechanisms by which competition exerted its purported
15 effects on quality of care.

16 DR. BARTLETT: Meredith?

17 DR. ROSENTHAL: I guess I'd like to pick up on
18 a point that Arnie Milstein made earlier, which is
19 thinking about how competition -- in hospital markets, I
20 think he was mostly talking about -- might inhibit
21 efforts to measure quality and also potentially to pay on
22 quality.

23 I think it would be interesting to look, for
24 example, at the impact of competition in those hospital
25 markets on update of Leapfrog measures or reporting to

1 Leapfrog. Those seem like feasible, easy studies to do.
2 And that would give some intuition as to how much we
3 should really care about this.

4 And then to reiterate what Larry said, there's
5 just so much work to be done in defining physician
6 markets. I mean, just one example: Do solo practice
7 physicians really compete with these multi-specialty
8 groups? Because they seem like very different animals to
9 me. They're different products. And I think
10 understanding that could be important as well.

11 DR. SAGE: Well, Judge Posner said they'd be
12 competing to provide horse and buggy medicine.

13 I want to agree with Patrick and repeat the
14 point about establishing the correlations, the clinical
15 mechanisms, and the financial incentives, and getting all
16 of that into the research.

17 The other thing I think I need to mention
18 because it hasn't come up, even though it's a major part
19 of the industry and a major part of what the FTC is
20 doing, is innovation markets. We've really said nothing
21 about pharmaceuticals or about clinical innovation or
22 about anything else that's sort of dynamic quality, as we
23 sometimes describe it. And I think that's an important
24 part of the research.

25 DR. BARTLETT: Bill?

1 DR. VOGT: Well, I don't actually think I have
2 a whole lot to add to what I've just said, demand and
3 causation and volume outcome.

4 DR. BARTLETT: It doesn't hurt to say it again.
5 Dan?

6 DR. STRYER: Well, having missed a good part of
7 the day, I think I'll take a pass and just try to soak up
8 as much as I can.

9 DR. BARTLETT: Herb?

10 DR. WONG: I think I'll just pick up on the
11 point that Bill had basically highlighted and reiterate
12 that or re-highlight that as well. I think that that
13 draws really to the bigger question which everyone here
14 is sitting around and trying to think through from a
15 theoretical point of view, and that is social welfare.
16 Is the combination of price and quality increases in fact
17 a socially enhanced combination?

18 Having said that, I also think that you need to
19 continue going on the empirical route. You know, the
20 studies that Robert Town had presented, Dan Kessler, they
21 all contribute to basically building the theory. You
22 need some evidence of and some direction about how
23 volume/outcomes are behaving, variations, and things of
24 that nature to contribute to that literature.

25 So I think that we can't lose sight of the

1 empirical work that feeds into this as well. And
2 personally, I would be thrilled if, you know, the FTC
3 finds that my study on consolidation would be -- you
4 know, could contribute to some of your policy issues that
5 you're addressing.

6 DR. VITA: I'll just reiterate my comments from
7 earlier. I think the work that's been done so far on
8 devising measures of quality is very impressive, and I
9 think it's amazing the progress that's been made.

10 I think where the gap needs to be filled is
11 more research on how that information is transmitted and
12 how it's acted on by decision-makers.

13 DR. BARTLETT: Gary?

14 DR. YOUNG: Yes. Well, I think at this point,
15 you know, the comments have been pretty comprehensive.
16 I'll refer back to the point that Gloria made and I think
17 a point that I made earlier, which is I think, in terms
18 of a research agenda, one that I think that AHRQ could be
19 extremely influential in moving, is to do more research
20 on consumer behavior.

21 I think we do need a much better understanding
22 of the nature of competition in health care. Warren
23 threw out toothpaste. Actually, toothpaste may not be
24 that far afield. I mean, how do people choose
25 toothpaste? Is it based on the physical appearances of

1 the toothpaste? Is it based -- do people go back and
2 look at technical information on cavity records
3 associated -- you know, cavity data associated with
4 toothpaste? Or do people choose toothpaste because
5 that's what their dentists tell them to choose, which
6 actually would bring us into the health care field, I
7 think, very quickly.

8 So I think we really need to understand that.
9 I don't think we do have a good understanding of the
10 nature of competition in healthcare, and I think that's
11 an agenda that AHRQ could really be extremely important
12 in moving forward.

13 DR. BARTLETT: David?

14 DR. HYMAN: I choose my toothpaste because that
15 was what my mother gave me when I was growing up. And
16 that has some similarities to a variety of health care
17 markets as well.

18 I think, you know, the basic research here is
19 very important. It's, you know, the health services
20 research version of policy R&D, what the Chairman
21 referred to this morning as why the Commission funded
22 some of these research endeavors and why it was
23 interested in these areas.

24 I think you need to do that. You also need,
25 though, to think through and operationalize an

1 implementation strategy, dissemination, and translation.
2 And I think it's got to incorporate a lot of the things
3 that have already been said.

4 DR. BARTLETT: Thanks. Peggy?

5 MS. McNAMARA: Well, I'm just struck today by
6 the richness the various disciplines are bringing to the
7 discussion, and just would urge a lot of
8 multidisciplinary projects in the future.

9 DR. BARTLETT: Dan?

10 DR. KESSLER: I'll go ahead and pass, give
11 Peggy the last word.

12 DR. BARTLETT: Okay. Good. Anybody who's
13 sitting off the table that has something that they'd like
14 to add? Any thoughts? Any suggestions?

15 DR. FRIEDMAN: Well, I have to observe that --

16 DR. BARTLETT: You've got to come up to the
17 mike.

18 DR. FRIEDMAN: Sorry to do this to you, Warren.
19 But I have to observe that with toothpaste, I'm paying my
20 own money for it and I'm not being covered by a third
21 party payor and an employer who may have objectives of
22 their own in how they shop for health care.

23 So I think if we -- you know, there have been
24 times there --

25 DR. GREENBERG: I wanted to start there. I

1 wanted to start at toothpaste and see that even that can
2 be complex.

3 DR. FRIEDMAN: Well, I think there's a pendulum
4 going now to where the payor is losing a lot of -- lost
5 some power compared to maybe five, six years ago. And
6 those pendulums have swung from time to time, and
7 employers have had different ideas from time to time as
8 to how activist a role they should have in the buying of
9 healthcare.

10 And I know when you say the buyer -- was it
11 Dave? -- I know when you say the buyer, you are including
12 employers and payors. But I think it's a complex market,
13 and so just to think of the consumer as an individual
14 who's the patient, you know, or the ultimate buyer is a
15 little too simplified.

16 DR. BARTLETT: Bernie, would you identify
17 yourself for the record? Not that you've said anything
18 controversial about toothpaste here. Just we've got it
19 on tape. Bernie Friedman.

20 DR. FRIEDMAN: Bernie Friedman from AHRQ.
21 Thank you.

22 DR. BARTLETT: And let me suggest, before we
23 start moving on to dental floss at this late hour, I'd be
24 swallowing this if I brought it any closer. But I can
25 remedy that.

1 Let me turn -- maybe not this mike. I'll let
2 you use -- but let me turn the floor back over to Irene
3 Fraser from AHRQ to close things out, maybe some summary
4 thoughts.

5 DR. FRASER: Okay. This has been just an
6 incredibly rich day. I feel like I've been at a mental
7 smorgasbord for a full day, and it's the richness not
8 only of disciplines but of different kinds of
9 perspectives and so forth. I think we could convert the
10 entire AHRQ research agenda into research -- pursuing
11 research ideas that came out today.

12 And at the risk of being repetitive, what I'm
13 going to try to do in about five minutes is just kind of
14 pull together and kind of categorize a little bit some of
15 the very highlights of what I heard. And I think Peggy
16 and I and others on my staff will be poring over this for
17 a while and having further thoughts and hopefully further
18 conversations with some of you as we think this all
19 through.

20 But it struck me that there were several
21 different kind of packages of things suggested. One had
22 to do with measurement development, which isn't always
23 the sexiest kind of research to pursue, and in many cases
24 seems like it's very far from what the ultimate users of
25 research need.

1 But this seems like a field where there's still
2 a great deal that's needed in that area, and several
3 issues came up today, from the very basics of how you
4 define a market itself to the utility of some of the
5 measures that we use currently, moving past Herfindahl to
6 looking at issues related to ease of entry into the
7 market and trying to add in some of those other kinds of
8 measures.

9 And that's just on the measures concentration/
10 competition, just with hospitals. As you start to move
11 into outpatient areas and non-hospital areas, our
12 measures are even more needy of further development.

13 Similarly, on the quality side, there's a great
14 deal of need for continuing measure development. Within
15 AHRQ, we've been avidly pursuing measurement development
16 for quite a while, both on the CAPS side, where we're now
17 moving to hospital-level CAPS, and in the quality
18 indicator side, which you've heard a bit about today.

19 Obviously, even all of those rich quality
20 indicators, which several of the people around this table
21 helped to produce, those are still just on the inpatient
22 side or just using inpatient data, so they measure the
23 quality of inpatient care and of preventive care in the
24 community but don't even get to the outpatient side, much
25 less beyond the hospital. As we move towards more data

1 development in those areas, we're hoping to be able to
2 move into quality indicators in those areas as well.

3 As you go from the measures to the data, I
4 heard a lot of data needs. First of all, even just
5 identifying, once you move past hospitals, who are the
6 providers, what are the units of analysis that you would
7 even want data on, and once you have those, where's the
8 sampling frame for getting your arms around the totality
9 of them?

10 Certainly, to expand research on physician
11 group practices, we need a sampling frame for having the
12 totality of those. We've been having discussions with
13 folks, MGMA and others, about trying to find ways to have
14 a sampling frame for that.

15 And then, finally, in the data realm, trying to
16 find ways to link the data and to have a richer set of
17 data at a market level because national data, of course,
18 are not very helpful. If you're doing analysis of a
19 merger or of changes in competition within the market,
20 you need market-level data.

21 We have market-level data in some arenas. We
22 have it for hospitals. There are other places where
23 there are selected compendia of market data, but we need
24 ways to integrate that so that people can look at the
25 total picture. So we've been working with an idea and

1 have actually had a feasibility analysis of something
2 that we call the market file, in which we would try to
3 pull together data from varying sources so that
4 researchers can use that.

5 So that has to do with the measures and the
6 data. I think the harder things will be getting at the
7 issues of causality and the links between concentration
8 or competition and quality, and trying to get into that.
9 The issue of report cards, I think, is really critical,
10 and it's something that, from various perspectives,
11 various parts of the agency have been working at over the
12 years. Certainly there's been a lot of attention from
13 the quality side and some funded research on the quality
14 side looking at the impact of report cards.

15 My own personal -- not institutional -- thought
16 here is that we need to reframe the question and not
17 think about, do report cards work, but that the real
18 question should be, when do report cards work? Under
19 what circumstances, what kind of design, do reports cards
20 work?

21 Because we know that they work for a lot of
22 items in a lot of other industries, and it's, I think
23 our -- it's not the consumer's fault, it's our fault,
24 that we haven't come up with the right kinds of report
25 cards. And there's actually, I think, been a little bit

1 of recent research by Judy Hibberd and others suggesting
2 that if you really get it right, you can in fact have an
3 impact on behavior.

4 We will actually have a couple of opportunities
5 to look at some report cards. We now have two states,
6 New York and Texas, that are using the quality indicators
7 that AHRQ developed and are doing statewide reporting by
8 hospital. That's somewhat of a off-label use of the
9 quality indicators, but nevertheless will indeed provide
10 a way for us to take a look at what the impact of that
11 kind of thing might be.

12 I think in trying to get at these notions of
13 causality, I think we also need to look to qualitative
14 research as well as quantitative research because I think
15 that's when we're going to get greater understanding of
16 some of the issues of individual motivation and behavior
17 of many of the parties, whether that be consumers or
18 physicians or purchasers.

19 I think the volume/outcome stuff is
20 fascinating, and I think that that is an area which is
21 really begging for a good bit more research. I think
22 there's been a good bit recently of methodological work
23 suggesting that we need further closer examinations of
24 the relationship between volume and outcomes and starting
25 to question more and more the strength of that

1 relationship or at least the conditionality of that
2 relationship. And again, we need to get at what lies --
3 to the extent that there is a relationship, what lies
4 behind that. So I think that that is indeed something
5 that could be very useful for us and others to look at.

6 And then finally, the whole area of kind of
7 mediating factors. Because it seems to me that the issue
8 isn't simply what level of competition leads to what
9 level of quality, but under what circumstances different
10 levels of competition lead to different levels of
11 quality.

12 And so issues related to financial incentives,
13 to the impact of market segmentation, it may well be that
14 the impact on quality varies depending on the payor mix,
15 et cetera -- I think that there's a lot of complexity
16 there that could be very useful to try to explore.

17 I think running through all of this, though,
18 the comments that have been made about dissemination, I
19 think, are really right on. And what we need to try to
20 find a way to do is not just do the research and then
21 figure out how to get it out, but to start the research
22 in exactly the way we're starting it right here, which is
23 bringing the people who need the answers and the
24 people -- some of the same people -- who know how to do
25 the research to get those answers in the same room, and

1 really continue that dialogue throughout the research
2 process, so that there's no need for translation at a
3 later stage or for dissemination at a later stage because
4 you've already got all of the parties involved.

5 And I think part of the dialogue that I'd like
6 to follow up with many of you on is how do we make that
7 happen? How do we continue the kind of conversations
8 that we've had here and the richness of the experience
9 that we've had here so that when we go off and take your
10 ideas and start to try to fund and do some of this
11 research, you know, we get it right and we do it in a way
12 and in a time frame and so forth that will be most
13 useful?

14 So again, this has been just really wonderful,
15 to absorb all of this or to start to absorb it. I think
16 it will take several days to fully absorb it all. And
17 it's just -- it's been -- thank you so much for spending
18 your day like this.

19 DR. BARTLETT: We're adjourned.

20 (Whereupon, at 4:54 p.m., the meeting was
21 concluded.)

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1 C E R T I F I C A T I O N O F R E P O R T E R

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DOCKET/FILE NUMBER: P022106

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CASE TITLE: HEALTH CARE AND COMPETITION LAW AND POLICY

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DATE: MAY 27, 2003

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I HEREBY CERTIFY that the transcript contained
9 herein is a full and accurate transcript of the tapes
10 transcribed by me on the above cause before the FEDERAL
11 TRADE COMMISSION to the best of my knowledge and belief.

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DATED: JUNE 11, 2003

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LISA SIRARD

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C E R T I F I C A T I O N O F P R O O F R E A D E R

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I HEREBY CERTIFY that I proofread the transcript for
21 accuracy in spelling, hyphenation, punctuation and
22 format.

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SARA J. VANCE