Musical Introduction

KONDRACKE: Welcome to the latest in our series of discussions and debates in the SAGE Crossroads series.

I'm Morton Kondracke of Roll Call Newspaper. Today we are going to discuss the costs and benefits of medical research and the impact that medical research has on long-term health care spending in the United States.

Our guests are Dana Goldman, Dr. Dana Goldman, who is Director of Health Economics at the Rand Corporation and an Adjunct Associate Professor of Radiology and Health Services at UCLA. And his colleague, Jeffrey Joyce, Dr. Jeffrey Joyce, who is the health economist at Rand, and also on the faculty at UCLA.

The bottom-line question, I guess, here is projecting out into the future as you see it, what—what does, what does the future look like? I mean, can America afford the kind of health care that it

now gets? And especially, can old people afford it into the future?

_____: Well, I think the answer is yes. If you asked that question thirty years ago, you'd say, "Well, we are spending 5 percent of our GDP on health care. Can we afford to spend 15 percent?" And the answer is, "Yes. We are doing it right now."

And if you ask, "Have we gotten anything for all that increased health care spending? The answer clearly is, "Yes." We've got reduced rates of cardiovascular—death from cardiovascular disease. We've got reduced infant mortality. So what we've spent is worth it.

That said, the issue going forward is, how do we figure out a way to develop the right technologies that are worth it, moving forward.

KONDRACKE: Agreed?

_____: Agreed. Yeah. I think these are generally decisions individuals make where they prefer

today's technology or yesterday's technology—they prefer today. They are insulated somewhat from the cost of these technologies by insurance. But I still think we are in a world where people value health care. They value their life expectancy and the treatments that are at their disposal, and they are willing to pay for it.

KONDRACKE: Well, I've seen estimates, however, that—that by 2040 or something like that that Medicare and Medicare alone at current rates of growth will account for 20 percent of the GDP by themselves, which would—which is the size of the whole federal budget.

Now, I don't know whether you accept those estimates, but—I mean, at the rate we are going fifteen to twenty years down the line, what percentage of GDP will we be spending if the current trends continue?

_____: Well, you know, our—our forecasts are that we'd be spending $600 billion in 2030 on the

elderly alone. That doesn't include Medicaid and all the other associated groups that we spend money on.

The question is not—though—I mean, society, as a whole, can afford it. But the answer is, who's going to pay for it? And that's where the big debate is going to lie. I mean, we can raise taxes right away and deal with that. Or we could ask people to shoulder the burden. Or we can do what we've been doing right now, which is pass the burden on to future generations.

But you raise two points. The first is that there's a demographic issue. I mean, we know that there's the aging of the baby boomers and the population of elderly is going to double by 2030.

But the issue that we're focused on is not just this demographic risk, but also this technological risk in the sense that we may develop some technologies that could break the bank, even if we didn't have this demographic crisis.

KONDRACKE: Such as what?

_____: Well, we've found that–or, you look in the biomedical community, they've shown that if you reduce the caloric intake of rodents by 30 percent you can increase their longevity by 25 percent. That's a very interesting finding. By itself it doesn't mean much. But it turns out that people are working on drugs that can mimic this behavior. So, for instance, you find a pill that—we know that there are some genes that control this behavior, and so you have a pill that can manipulate this gene. We could actually see increases in longevity of 25 percent.

So there you are talking about extending life by 15 years.

KONDRACKE: So there is a highly theoretical possibility, right?

_____: It's highly theoretical, but it's also the case that people are working on it in labs all across the country. And so—and you know, there are

a number of technologies that people are working on. They are working on anti-angiogenesis to deal with cancer. They are working on angiogenesis to work, deal with cardiovascular disease. And what we show is that any of these technologies, if they come along, some of them can, by themselves, just one technology, increase health care spending by 17 percent.

So if you think there is a crisis right now—

KONDRACKE: One of them:

_____: Just one of them.

KONDRACKE: 17?

_____: The aging pill, you know? Medicare recently decided to cover implantible carioverter defibrillators. So these are the devices—

KONDRACKE: This is the Dick Cheney device?

_____: Dick Cheney device. That's right. So if you have a life threatening arrhythmia, it'll shock your heart and put you back into normal rhythm.

These are great devices, and they've been shown to be medically indicated for people with Dick Cheney's condition.

But the issue is, should everyone have one? And should Medicare be paying for it, if they do? And those are the issues that are going to be difficult to face.

_____: And I think we do walk this sort of fine line between want to encourage innovation and new products and new medical devices. At the same time as Dana, was saying, is you have to limit the expansion of these technologies to marginal populations where the marginal benefit of these technologies are modest.

KONDRACKE: So how are you going to ration this? I mean, do you propose a means of keeping these costs down?

_____: Well, I think—

_____: Go ahead.

_____: I think there are—well, first of all, there are two strategies for doing this. One is kind of what I'll term down-stream rationing in the sense that once the technology is developed, you kind of can regulate who gets it. And Medicare is trying to do that now. It's very hard to do that, because patients clamor for it and physicians say, "I know what's best." And it's very hard to deny that. That was why we had what people term the managed-care backlash in the nineties, because that's what HMOs were trying to do—limit costs by controlling access to expensive services.

The other way you can do it, and which we haven't tried, is upstream rationing, which is something that says we want to foster the development of technologies that are worth it, and in populations that are worth it, and we tilt the playing field.

You know, if you, in the United States, if you want to deal in the consumer electronics market,

you know, you—it makes sense to produce a no-frills DVD player that's worth it to people.

But the problem is that in the Medicare market, and in the market in general, patients don't pay for what they are doing.

And so no one wants a no-frills DVD. They want something that has the greatest bang for the buck.

And so the goal would be to try to shift the playing field to encourage the development of the no-frills medicine.

KONDRACKE: Well, now, this leads into an argument that's currently burning in—or not, maybe, not as burning as it ought to be, but it's on the cusp in Washington, and that's the issue of third-party payers and shifting the burden of decision making to the—to the consumer itself. Is that the bottom line of where you're arriving, that somehow consumers ought to be bearing more of the burden of their own health care?

_____: No. I would say there is a limit to how far you can push that. I think, first of all, you don't want individuals making the wrong clinical decisions based on financials. I think you want to have doctors and health plans making more rational decisions.

Bjt I don't think it's wrong to make people share more of the burden under certain circumstances. If you think a medical technology is not that beneficial to someone with your clinical profile, then we are not going to cover it as generously. And we do that implicitly now in many contexts.

If we can look in the pharmaceutical side, if drugs are very efficacious and very cost effective, we shouldn't be charging people $30, $40, $50 co-pays, but no co-pay, $5, $10—something where we foster things that we think are cost effective. We discourage things that are less cost effective.

KONDRACKE: Well, I mean, the parallel with pharmaceuticals, I suppose, would be brand names and generics. Where a generic is just as effective as a brand name and much less cost.

But how do you encourage the development of a low-priced technology?

_____: Well, here's one way you might do it.

KONDRACKE: And is there an example of a low-priced technology that is as good as a high-priced technology?

_____: Well, flu vaccines are really good. They are better than antiviral treatment for flu, which is kind of expensive, but it's still not what were orders of magnitude that we are talking about for some of these other devices. But here would be one way we might do that.

Suppose we had a policy at the FDA right now when it reviews a new technology. It doesn't look at cost at all. It just says, "Does this have any clinical benfit?"

And then Medicare makes decisions about coverage that take a long time.

But suppose we had a policy at the FDA that said, "If you can develop a cost-saving technology, we'll fast-track its approval for the population where you've demonstrated it, and Medicare will cover it right away."

So you create, not—not using a stick, but a carrot to encourage manufacturers to look at these issues. And other health plans would probably join in. I mean, it's cost-saving. Everyone wins, in some sense, and assuming it doesn't harm anyone's health. So that would be one way to do it. That's it.

_____: I don't think you want policies that sort of dictate what gets innovated and what doesn't, what gets developed. But I think you do want to provide, let's say, some carrots and some sticks. And we typically do see, particularly with medical devices, that they are engineering-based products,

that they typically evolve over time, they improve into high-cost procedures over time become much lower cost (sic).

And so you have to be careful about initially—

KONDRACKE: I was going to say—you know—

_____: (--inaudible condition they may not pass the test).

KONDRACKE: The cost—the cost of the Dick Cheney heart device presumably will come down over time. It's not going to—

_____: It's going to come down, but what happens is—take the example of open-heart surgery. When that first came out it was enormously expensive, as well. The same with kidney transplants. Those costs have come down quite a bit. But the total amount we spend on those has actually gone up because we are doing a lot more of them.

And so, at the same time that the costs are coming down, we are also expanding where we are doing it. And so the trick is to have health plans

and others create incentives for new technologies that are cost saving, or even very cost effective. And then figure out how you allocate them once they come on line.

KONDRACKE: Now, do you—do you see any movement, any consciousness in—among policymakers that this is—this is the way to go?

_____: None whatsoever.

KONDRACKE: None whatsoever. [Laughter]

KONDRACKE: So this is—this is a new idea, then, this (inaudible)?

_____: Actually, I shouldn't say that. Go ahead.

_____: I think folks at CMS and other places are cognizant of—of we have to look at things not just in an efficacy way, but in a cost-efficacy or cost-effectiveness manner. It's not institutionalized by any means. It's a long ways from being in practice.

But I think they are cognizant of it and thinking of how would we—sort of—impose this in sort of this marketplace.

KONCRACKE: That's the—the CMS is the Centers for Medicare and Medicaid Services.

____: And actually, that is—sorry.

KONDRACKE: Which is the government.

_____: Medicare is doing that with these implantable, cardioverter defibrillators. They have a deal that if you want one of these and it's covered by Medicare, you have to agree to have your data available to them so they can follow long-term outcomes.

KONDRACKE: Now, I mean, it would occur—a third strategy, it would seem to me, instead of rationing by either one of these means, is to prevent these conditions from developing in the first place. And the question, I guess, would be if, if you, in a tight budget, which the federal government is now--claims to be in--would you put your discretionary

dollar on medical research at National Institutes of Health, or would you put it into some sort of prevention program to get people to be—to eat better, do more exercise, avoid diabetes and so on?

_____: Prevention is extremely cost-effective, if it can be done well. It's very hard to change people's behavior and NIH has a role to play. They can help develop drugs that mimic what people could do on their own, because they don't do it. Take the example of statins, which are cholesterol- lowering drugs. You know, we could get everyone to eat right, but we know they can't do that. So we have a pill that can reduce their cholesterol and has a very—it's very valuable in terms of reducing cardiovascular risk.

So NIH does play a role here. Prevention is also important. But it's very hard to find an agency that is willing to invest in it.

CMS would probably—you could say to CMS or—that's Medicare—you know, "Maybe you should

intervene with the young to prevent them from getting diabetes, because eventually they'll be in Medicare when they turn 65." That's 30, 40, 50 years down the road, and they have to deal with their budget today. And so this long-term planning becomes very important when you are dealing with prevention.

KONDRACKE: CMS has done—has done a number of things about disease management, least, chronic disease management and, I guess, to some extent health prevention, although by the time people get to be 65 they are already in the chronic disease neighborhood, so it's difficult to do something about that.

So what—to what extent does NIH deal in preventive medicine, and can you—I mean, or has anybody ever tried to measure whether they are into disease prevention?

_____: I'm speaking, not with great knowledge of this, but my—my sense is that that's not one of

NIH's main missions. I think they primarily fund more basic research and prevention has not been, sort of, their bailiwick.

Having said that, I think there are plenty of things, as Dana said, that could be done, that have been shown to be cost effective by targeting young populations, but again, changing individuals' behaviors are not easy and that has proved elusive on sort of a broader scale.

And when you mentioned sort of disease management, I think intuitively, and from a clinical perspective, it makes total sense that you—you follow your diabetic patients more regularly, you make sure they get foot and eye exams, that they see the doctor on an ongoing basis.

Those things have been shown to improve quality of care and processes that the doctors—the blood levels—sugars are tested more frequently, etc.,

etc.; but we don't see a lot of evidence it saves money.

KONDRACKE: You don't?

_____: No. In aggregate. There are specific populations and certain—if you take high-risk diabetic patients under certain circumstances that can—there are some cost savings. But in general, we haven't seen sort of any broad assessment.

KONDRACKE: I mean, don't insurance companies now hire companies to—

_____: Yes.

KONDRACKE: --contact diabetic patients—

_____: Absolutely.

KONDRACKE: And make sure that they've taken their insulin and try to do everything they possibly can to avoid amputations and blindness and that kind of thing. Now, does that work?

_____: Here's the irony about that stuff. First of all, we don't really know. A lot of patients

don't enroll in those programs. It's hard to keep track of them.

KONDRACKE: Well, can't an insurance company sort of make them?

_____: Not if they want the employer to say with them, because I think employees get upset if you (sic) say, "Oh, why are you kind of pushing me off and making me do this program? What's going on?"

People are very skeptical of their insurance company.

The flip side is what Jeff was saying. At the same time that they are putting these patients in these disease management tracks, they are also raising their co-pays on their drugs that could forestall and prevent complications in the first place.

So on the one hand they are paying all this money to the disease management companies, but on the other hand the patients are paying more for their drugs. And we know from our research that

patients take less of their medication when they have higher prices, even patients with serious chronic illness.

KONDRACKE: And the answer to that is?

_____: The answer to what?

_____: Well, the answer to this problem of—not being willing—

_____: Oh, the answer to—

KONDRACKE: --to—or not able to follow their own medical—their doctor's advice.

_____: Well, you want to reimburse for the things that we know work—things as simple as a phone call to see if patients are taking their medication. And there's a role for information technology here. And there's a role for reimbursement.

If you ask, you know, a doctor will say, I've had discussions with doctors and they'll say, you know, they have a diabetic, and they'll say, "The best thing I could do for this person is get them

to lose weight, but I don't get reimbursed by Medicare for doing that."

And so, you know, some people have said, "Pay per/for performance." You know, the doctor treats—the doctor and the whole care team are reimbursed based on how well the patient does and how their health improves, which seems to make a lot of sense, but ultimately that's playing at the margins unless we get a hand on this technology story.

KONDRACKE: So, now, you are—you both have contributed to a large new issue of Health Affairs that's just coming out right now, the bottom line of which I take it we've been discussing.

But—it—and is it basically directed at the long-term costs of health and the merit of medical research? Is that the--?

_____: To some degree, yes. I think that it's a—has some pessimistic sideline to it that—there are different papers, and Dana will talk more about some of the others; But, I think in particular I

think what we've seen is improving the health of the incoming Medicare population—those at age 65. If we could reduce diabetes and hypertension what impact would that have on Medicare expenditures? And, unfortunately, it's not that great. Treating a sick person costs more than treating a healthy person, but diabetics, for example, at age 65, are going to die sooner. And that sort of reduction in their life expectancy offsets some of the cost savings to Medicare.

So, not that they shouldn't be done, disease management—prevention of these diseases, etcetera, but they are not a panacea for Medicare's fiscal solvency, for example.

KONDRACKE: So if you—if you could reduce the—the amount of—the number of people who are chronically ill with the basic fundamental diseases, which, I guess, are heart disease, cancer, Alzheimer's disease, what,

_____: Diabetes.

KONDRACKE: Diabetes—you would reduce Medicare—the Medicare budget by what?

_____: Well, here's the—dealing with any one disease doesn't solve the problem.

_____: Right.

_____: Okay, people are going to get something else, and they all tend to be expensive. And so you don't save virtually any money if you can just address one disease.

Dealng with the multiplicity of disease, and the entire constellation of chronic illness could actually save quite a bit of money, and that's what gets back to your prevention story, potentially that you were talking about. Exercise—or obesity, we found, is the one exception. If we could deal with obesity, we could actually save some money.

And I did want to say one thing about NIH and its prevention efforts, because it just occurred to me that the National Institute on Aging, for example, just ran a big clinical trial on

Alzheimer's prevention, and they were trying things like Vitamin E, you know, which aren't the kind of sexy things that usually get the headlines in—for scientific research, like stem cells. But it's potentially a promising strategy. I think the results were mixed, unfortunately.

KONDRACKE: Right. Now, there is a study that's—that was put out by the Lasker Charitable Trust, done by Kevin Murphy and Robert Topol of the University of Chicago, which says that increases in life expectency in just the 1970s and 1980s were worth $57 trillion to the American economy, and that the gains associated just with the prevention of cardiovascular disease totaled $31 trillion.

Now, this would suggest that if you could extend life expectancy and conquer these diseases, that the savings would be perfectly enormous. I mean, these kinds of number are—would, you know, wipe out the national debt almost, or more. Now, is there something wrong with these numbers?

_____: No, actually—

KONDRACKE: Or are they accurate?

_____: We may have some conflict here. Go ahead.

_____: No, well, again, I think that is typically how much would you value an additional year of life? And I think those—

KONDRACKE: So how are these numbers derived?

_____: That's kind of—what they—actually, I don't want to speak directly at that. But what they—the basic point here is that we've become a very wealthy society. We have high income in general.

And so saving a life has enormous value. People can live longer and consume more and just get a lot more utility is what economists would say. And that's what that's pointing to. That when we look at our GNP figures and things like that, not everything takes a new account how valuable a year of life is.

And—and it's important that people recognize that health care, despite its expense, generates a lot of great things. And that gets at our point earlier, which is that we are spending a lot more on health care, but that's because we are a wealthier society and we want to do that. So I don't think there's anything wrong with those numbers.

The trick is what it doesn't say is moving forward, where should we be putting our dollars, and the answer to that has something to do with where do we get the most bang for the buck?

KONDRACKE: And-and we get the most bang for the buck from prevention or not prevention?

_____: Prevention is very valuable. You know, we have—that's—it's not always the case. You know, there's a lot of screening that goes on that's unnecessary and other things. And what we are proposing is a more systematic review of where we can get that bang for the buck.

_____: If you look at sort of what has led to the expansion and life expectency over the past 30 or 40 years, clearly sort of better health behaviors and better awareness on individuals has contributed.

But it's been largely driven by medical technology and innovation. Medical care is clearly much more efficacious today than it was 30, 40, 50 years ago. Matter of fact, 50 or 100 years ago, doctors didn't do all that much but hold your hand.

And so I think if we really do think about rising—rapidly rising medical care costs, it really does focus on the cost of new technologies and our willingness to pay for them.

KONDRACKE: So if you were—if you had Dr. Frist or somebody here, or the President, and you wanted to tell them how to deal most effectively with this long-term health care burden that we've got to face, you're five-item list would be what?

_____: There are so many things I'd like to say!

[Laughter]

____: Well, one of them is—

____: Firstly,--

KONDRACKE: Well, let me just deal with one of them. I mean, the—the Bush administration wants to cut the NIH budget from 15 percent, which was what it was rising during the period of the doubling, which ended in fiscal 2003, down to about 2 percent. Now, is that a wise thing to do?

_____: I don't think that's a wise thing. If you look at what has generated all this wealth, it has been investments in health, and we want to keep making those investments.

You could re-prioritize, so that would be one item to say, "Let's keep growing the budget, but let's put it in areas that we know we'll have—or that we expect will have the greatest bang for the buck."

The second issue would be this—what I said before, which is creating incentives for technologies to be developed, that might save some money and improve health. And that had to do with changing the mission of the FDA a little bit, changing the mission of an organization like Medicare, and allowing more innovation, especially at the state level. You know, we have these state programs like Medicaid and things like that that are kind of put in a box about what they can do. Maybe we should allow them to experiment with the way that they finance public health in those communities, and maybe something good will come out of that.

_____: And related to that theme of sort of looking at technologies or areas where we think we are going to get the most bang for the buck and most cost effectiveness, in reality we ration currently; and we are going to have to ration in

the future. There is no way we can pay for everything for everybody.

And so I think we just have to be wise about what we are willing to pay for and—and who should pay for it.

Should taxpayers pay globally for technologies that have marginal therapeutic benefit? Or should more of that be shifted on to a consumer, and let him or her make that decision if that technology is truly worth it to them.

KONDRACKE: If you got a defibrillator like Dick Cheney's, I don't know how—I don't know what that costs, but I don't know how any individual—any normal individual would be able to pay for it. So we are going to have to insure for that in some sense or another. So how would you organize it in such a way that people were paying attention to the cost but, on the other hand, making sure that they got it if they really needed it.

_____: I agree with you Morton. Actually, you can't. And so this consumer-direct—I'm a little more skeptical than Jeff about consumer-directed health plans, because, you know, charging someone $500 for this thing, versus $1,000 isn't going to change the calculus. And so really it comes back to either managing care in a kind of HMO-type model, or this upsteam rationing that I talked about earlier, where you try to tilt the playing field toward more cost-effective technologies.

_____: I guess to clarify, I would not say you want individuals just making that decision or raising their cost-sharings to a prohibitive level at all under those—in that type of an example. It can work in the context of an office visit for a physician, we know, charging $10 or $20 does defer some utilization. Simply the same for prescription drugs.

But at that level of a $130,000 decision, you, again, it should be a clinical decision, and I

think that's where it comes from—the Center for Medicaid and Medicare Studies, or Health Plans, to say, "We—there is sufficient evidence to say, 'This is worth it.'"

KONDRACKE: Well, now, are—conservatives, including the administration, claim that health savings accounts are the answer to this, where you would tax defer—put the money tax-free into a savings account, and you would get a catastrophic policy so that—so that your defibrillator would be paid for if you needed it, and meanwhile, you would pay your bills out of pocket—your ordinary bills out-of-pocket out of your tax-deferred savings account. What do you think about that idea?

_____: Well, we've written on this as well, and the problem here is both proponents and opponents are too extreme. It is true that at the margin it makes people more prudent consumers of health care, so the kinds of things like, "My child has a runny

nose. Maybe I'll wait a day before I go." And most things clear up.

And so you—you kind of, with those accounts you kind of remove the health care that has very little benefit. But it's not very expensive health care, either, you know. Whether you go to the office or not is not going to do it.

What's expensive are these big ticket items. So opponents are also right that it's not going to ultimately control the growth in health care spending. It just makes us a little more prudent.

If we want to control the growth we need something else.

KONDRACKE: Let me ask you about one other problem. We've only got a few minutes—a couple minutes left. We had a doubling, as I mentioned, of the National Institutes of Health Budget, now—which concluded in 2003. The question is, what is the payoff for that enormous expenditure? And it's troubling to a lot of people that the number of patents approved by

the federal Food and Drug Administration for new, basically, pharmaceuticals, is way, way down. You know, you'd think that when you poured that much money into the pipeline, that it would have produced some breakthroughs.

Now maybe—maybe there's not been enough time for them to gestate or—but lots of people think that there is some systemic problem here that prevents the translation of these—whatever discoveries have been made in molecules and genes and the rest, from being put into—into cures for diseases. What do you know about that?

_____: I don't know a lot, but I think NIH, I think, has had a tremendous track record, and I think as far as, let's say, the drug pipeline, they go through cycles where you see new chemical entities being patented at a much higher rather and then you'd have a five- or ten-year period at lower rates.

But I think if you look a the biotechnology pipeline, really, which is where all the innovation has been and will be in the next ten or fifteen years, there are a slew of groundbreaking products that are about to come out.

KONDRACKE: What do you think? What would you think are the big—the big ones that are going to make a contribution?

_____: Most of them—if you had to summarize, generally cancer is the breakthrough where I think there may be 150 to 200 different biotechnology products that are poised to come out in the next five to ten years that will fundamentally change how effective we are and who we can treat, and again, drugs are now trying to be targeted to individuals, as opposed to just a broad class of disease.

So I am not an expert on where NIH funding has gone, and how successful it's been in aggregate, but I think, overall, its track record has—if you

did a sort of cost-benefit analysis, is very, very good.

KONDRACKE: Do you have any thoughts on (that) problem?

_____: Well, I was just going to say, you know, there's a knock on the drug companies because the number of patents has gone down. But it's become an incredibly expensive undertaking to get a new drug developed. And so I think if you'll look at those patents, you will see that they tend to be for diseases that are much more common.

And so on a person-weighted basis, they are actually treating as many people as they were before. It's just that we are kind of cutting off all the drugs for treating diseases that are somewhat rare.

_____: We really are almost out of time, now, but is there a message that you—that you'd each like to leave in the next say 30 seconds each?

_____: Okay. I would like to say that we worry a lot about the demographic risk facing Medicare, but what our research shows is that there's an enormous technological risk. Some things could be developed that are very good for us, but they are also very expensive. And dealing with a problem before it hits is much easier than trying to prevent people from getting these things after the fact.

_____: Again, I would echo the same comments—that we have to really think about as a society what we are willing to pay for, because we can't pay for everything. And these emerging technologies are going to expand life expectancy, etcetera, but at a price.

KONDRACKE: Dr. Joyce, Dr. Goldman, thanks so much for joining us. I'm Morton Kondracke, and thank you for being with us.

MUSIC

END OF TAPE