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- I'm Pat Remington, and I'm the director of the Institute. The first Monday of each month, the institute sponsors a seminar. I'm glad to have Pat Remington here...

(laughter)

to give this month's seminar. This actually was a stand in for a guest that we had hoped to bring in. I did look back over the seminar dates and topics over the past couple of years and noticed that I'm a fairly regular presenter. So I had to filter out any old work that I've already presented and focus on new work that we're doing within the institute.

So, this is the outline for today. And I want to leave time at the end for any questions or comments about some of the work that we're doing.

I'll begin with-- Is that all right, Denny, or is it my angle? It looks dark.

With a background on the issue of using surveillance information to improve population health. It's a specific aspect of my work that I have been doing since I really started working in Public Health and Epidemiology almost 20 years ago. I'll talk about three ongoing public health surveillance activities that we have been putting a lot of time and effort in at the institute, and then talk about this issue, and the focus really of how to evaluate the impact of surveillance information to improve populations health, and then conclude with some next steps that we're taking.

So, some of you may be aware of this document, others may not. Now almost 20 years ago, the Institute of Medicine established a committee to look at the public health system in the U.S. It published a very troubling, but also seminal report in public health. It was entitled the "Future of Public Health." The main quote is that, "In recent years..." And this is again, 1988.

"...there has been a growing sense that public health as a profession, as a governmental activity, and as a commitment of society is neither clearly defined, adequately supported, nor fully understood." And the term used is that the assessment of the Institute of Medicine was that the Public health system was in disarray 20 years ago.

As a result, the committee looked, not at defining public health as what you do in government, but what you can do well, and so it came out with a recommendation that public health should get out of the direct delivery of services, primarily healthcare for the poor, and go back to its core functions. And those were defined as: assessment, surveillance, looking at population health data; then driving policies with those data, not so much in program delivery, but in policy development; and then finally the assurance function that if in the end services are not being provided, public health is the provider of last resort.

This core function of assessment is one that I've spend quite a bit of time working on when I was at the CDC from 1982-1988, and worked on one important surveillance system that was developed then, the behavioral risk factor surveillance system to broaden this core function to not just infectious diseases and mortality data, but include behavioral risk factor information, quality of life information and really brought surveillance from a national stage to a state and local stage.

It's obviously the collection, analysis, and provision of information on the health of the community, and it includes all sorts of things everywhere. People debate whether surveillance, in fact, or the assessment function includes the use of this information in policy development. But most people feel that simply collecting the information, disseminating it without an eye towards it being used for policy or program development would be an incomplete assessment role.

And this is a model that Rick Goodman and I-- Rick was the editor of the MMWR.

He now directs the Public Health Law program at CDC. The CDC taught this surveillance loop from data collection, analysis, interpretation and then dissemination. And again, when Alex Langmuir developed this CDC Epidemic Intelligence Service the idea was, this is really the surveillance loop, the idea of information collection, interpretation, dissemination. But the move has really been for the information at the same time that you're using your analysis to then revise your data collection efforts is to incorporate the data into program planning, understand the importance of fidelity of program or policy implementation, and then have data systems in place for evaluation.

So really, the data collection surveillance cycle operates in close concert with the program planning and public health improvement effort.

Well, 15 years passed and the Institute of Medicine came back to revisit the future of public health and issued a new report. Sometimes people call it the "2002 Report," that's what it was entitled but technically it was published in 2003. And the major change 15 years later, is that when looking at the future of public health and the view of the public health system in 1988, the Institute of Medicine focused on the governmental role in public health in those three core functions.

But as time went on and the public health agenda expanded to include, not just infectious diseases or environmental hazards, but violence, and depression, and chronic diseases, the Institute of Medicine recognized the importance of not just government, but healthcare, employers, media, the community, and academia, and shifted the frame from strictly focusing on the governmental function of public health to a broad partnership. And in fact, notice this subtle change in the title of the report.

Rather than the "Future of Public Health," which was the '88 report, this is "The Future of the Public's Health." And we in public health notice that if you just change, or add an apostrophe and an "s" immediately, people consider themselves to be part of the public's health as opposed to the limited focus of public health, which is equated with governmental public health.

And here is the new IOM view of government not being at the center or the mainstay for community health improvement, but rather one of several partners that focus on ensuring conditions for population health. And these obviously, again, are the community based organizations, healthcare system, employers, businesses, purchasers, media and academics.

Well, the challenge then, really is I think, in let's see 2017, the Institute of Medicine will come back and revisit the question of how well did we do in engaging these new system partners, and in particular, how does this broader public health system relate to the role for state and local public health departments.

In my opinion, I don't think the broad members of the community realize they're a part of this new public health system. I think that's a concept that has been hatched within public health and a small Institute of Medicine committee, but hasn't really been adopted by others in the community.

So, obviously my bias to the answer to the second question is the core function of assessment. It's a really important role of governmental public health in data collection, analysis and dissemination.

Well, we have worked on three major projects in collaboration with the State Health Department, but primarily using widely accessible data.

There is a whole new effort. Robert Wood Johnson has supported an effort called Web-Based Data Query Systems. And this is a not yet sort of publicly announced, but the idea is that 25 states now have data that are part of these web-based data query systems. The idea of the RWJ foundation is to really improve the ability of practitioners to access fairly complex databases through these web-based data query systems.

Well, Wisconsin is one of the leaders in the nation at having the data available. So for all of these, we have much of the data that we can obtain online.

I'll talk about these three. One is the look at this idea of preventable mortality. I did talk about this at a previous seminar, so I won't dwell on that. And then this summer, we put out a health report card.

Dave and I were going to give this seminar, I think, in September on this, so I did want to mention that. But I'll focus on our county health rankings, which I think are available and have been passed out. It's just been released a couple of weeks ago.

At first, Angie Kempf, a graduate student worked with Bridget, Paul Peppard, and Dave and me on this analysis of the burden of excess mortality. So when mortality data are widely available, a standard metric in population health. However, it's hard to compare and contrast rates. We find that people, in particular, in smaller communities when you talk about a rate per 100,000, and they have a population of 10,000 we're not sure what that means. Rates tend to have less meaning than absolute numbers. And so we used, rather than indirect standardization, we directly, in effect, adjusted state mortality rates-- not state mortality rates, actually the best mortality rate in any county to the population of that community. And did it for every age group.

We averaged 10 years of data to come up with stable estimates. And then we simply multiplied this best rate by the observed rate to come up with an excess in deaths. The difference between the two rates multiplied by the population in that age group gives you an excess number of deaths in that community.

So here are the counties, the age groups are shown here. Here are the counties. The names of the counties with the best rate of the 72 counties in the state. You can see Wood County has an infant mortality rate of about 3.5 per 1,000. Waukesha county has the lowest death rate for kids 1-14, 12 per 100,000, all the way down to 65-74. This is under 75, premature mortality.

And when you look, it's not always the same county, but Waukesha, I mentioned three times.

It's a suburb of Milwaukee. Calumet, Pepin, relatively small rural counties, but fairly healthy with respect to premature mortality.

Well this is a spot map showing where each of these premature deaths would be located across the state. Obviously, they are randomly distributed within the counties. But the number of dots represents-- Each dot represents one excess death. Oh, and then the total for the state, using this method is-- of the 45,000-47,000 deaths, about 5,000 would be occurring in excess of what would be occurring if every county had the best mortality rate observed in one county. This is what the state looks like. You can see lots of dots here. There are 1300 within the city of Milwaukee, the rest of the county is 320. So about 1600 of the 4800 excess deaths occur in Milwaukee county.

And when you look at the state, the city of Milwaukee, the rural counties, and the urban counties, except the cities. These are the population distributions of the five million people in the state during this study period. About 11% live in the city of Milwaukee; 32% in rural counties; and about 57% in Urban counties. But when you look at the premature deaths, about 28%, almost 2.5 times the population percentage are in Milwaukee, the city, and 1600 in rural counties, about comparable to the population distribution; and the urban counties have a proportionally less excess of deaths. And this is a bar chart showing the same information. Population distribution in the city, urban counties and rural counties, and again a much different distribution when you look at premature mortality. So if you look at it graphically, and this is about a little less than a third of premature deaths in the city of Milwaukee. These urban counties, about another third. Then the balance of the state, about 34%.

So, the major finding from this is that the city of Milwaukee has about 28% of the state's excess mortality, and the balance is equally divided between urban and rural counties.

We presented this information to the city of Milwaukee, the Mayor of Milwaukee a couple of years ago, presented it again last Friday morning, when the Mayor was present. And clearly this has been used by the city health department, by the mayor, to keep focusing attention on not just high rates of premature mortality in Milwaukee, but the burden for the state that he titled his session it was an editorial, a recent editorial, as "As Goes Milwaukee, So Goes the State of Wisconsin." With such a significant share of premature mortality, Milwaukee necessarily pulls down overall population health indicators for the state.

A second example of a major surveillance project that we've worked on, and this is really with Dave Kindig's leadership, is the Wisconsin Health Report Card. This focuses on our state health plan's goal, which is for 2010, to protect and promote health for all and eliminate disparities. So the report card aims to look at ways to make Wisconsin the healthiest state with less disparity. This is funded by the UW Partnership Program.

By way of background, the America's health rankings measures the population health of all 50 states. It's been doing it for 20 years. Wisconsin used to rank 4th, 5th or 6th.

And over the decade, began dropping its rank to 10, 12, even 14. So there's a sense that not only is Wisconsin not moving ahead in the country, but actually dropping in its relative health ranking. America's health ranking does measure health broadly, looking at determinants and health outcomes, but it doesn't really look at health disparities within state. It focuses more on mean or overall population health measures.

Other organizations have measured disparities, but not really across the nation, and certainly has not given the measure of disparity a value. That is, a reference to what might be ideal, which is no disparities, to what we currently observe.

This is an important finding that Angie pointed out. She was searching the literature and found some reasons for the changes in rankings on the health of America. This is published in the November 14 issue of the "Onion." New York's rank drops precipitately from 8th to 27th.

And people think that may be the transfat ban now forcing residents to mug or murder one another. High rates of murder obviously leading to higher mortality rates. New Jersey, there was a clerical error in the medical records, it's been corrected. Illinois, it extended the legal limit for deep-dish death. Nevada, 38 wasn't working for them, they're trying their luck on 39. Wyoming actually improved in health, and the health department told all unhealthy people to stay home when the united health foundation was in town. This is suppose to be funny.

(laughter)

It is kind of funny. But I think it's really telling that when you make it into the "Onion," you've really, it's almost like being on "Letterman."

(laughter)

People are paying attention to health ranking.

This report card, which we also handed out, grades Wisconsin not just on mean health, but on health disparities. It looks within life stages and within population subgroups. And we're just beginning to look at how you measure health overall, and by disparities and use two measures, mortality and health-related quality of life. We're actually working towards broader measures of population health looking at these determinants. These are available, generally, by subgroups, by gender, race and social and economic factors. Some of the determinant data are not. And this is the results of the report card. This looks like an easy thing to do.

It took us a long time to finally agree on a system and on the method of presentation.

Dave Kindig had this idea in his mind from the beginning and he won in the end. The idea that you have an overall health grade by life stage, and Wisconsin would get a "B-". And I can talk about the technical details of that. It basically means that if you look at the distribution within each age group of each metric, that we used a standard deviation to say that some states are excellent and some are failing. But that within this standard deviation unit, or a half-standard deviation unit, that most grades would be right in the middle. So Wisconsin is near the top, but to get an "A", you really have to be the top one, or two, or three states.

Health disparity is measured in a little different way, in that ideally every group that you look at would have the same value. And we total up all the possible differences, that if the mean was an "A", let's say, or the best group was an "A", that every grade down would be a measure of total disparity possible.

And we said that it'd be excellent if we had just a little bit of disparity, but if there's a lot of disparity that isn't so good.

And so, we had a distribution, then, of disparity.

Again one might argue, and I'm looking for your feedback, that this adds a value statement to what otherwise would be a standard rate ratio or risk difference. This says that this is pretty good and this is pretty bad. And our purposes-- I'll get back to it-- Our purposes are for not to just have the surveillance information be disseminated, but to engage the community in discussion.

Now I'll show you the data, actually. And this shows, along the X-axis is the mortality rate for working age adults, ages 25 to 64 per 100,000 population. And these are age-adjusted within that age range. You can see from 100 to 700. The best state is 257 is Minnesota. The worst state is Mississippi at 519.

Wisconsin comes out right here at 296. So this again, best state to worst state, this is the range in the country. And then each of these flags represents a subgroup in the state from Asians, college grads, some college women and suburban residents. Those are all above the best state, and would be excellent on a national scale. Then very good would be whites, non-urban residents, and rural falling in here. This would be a "C" for men. Milwaukee County at 367 is poor, down here. And then, those with high school education or less, Native Americans, and African Americans would get failing grades down at this end of the tail. So any questions about this? It's a simple way to show what otherwise is in the data, it's just stratifying the overall mortality rates by gender, education, race, and place of residence.

And this is the standard mortality data.

Well, one of the questions that we need to ask is obviously, this is the mean. So here's our mean. Pretty good, "B-". But this wide difference here is not very good. You'd like to see all of the flags pretty close together so that there's little or no disparity. But clearly, we have considerable disparity on this tail. So one question would be, what would be the impact, now focusing on race, Asians, whites, Native Americans and blacks. What if we asked the question, the policy question, what would be the impact on Wisconsin's mortality rate and ranking if we eliminated disparities? And we define that as taking any group that's below the average for the state, and bringing it up to the next group above the state.

So if you took Native American mortality and improved mortality rates to the white rate, and I didn't hear any sort of gasp. Angie gets credit for this. That was cool. You want me to show that again just in case people were--

(laughter)

Notice how the color changes. And the number. She does contract out for Power Point lectures. That's not it. What is the impact for the state with those groups moving up?

Wisconsin's mortality rate moves up just a tad. The obvious reason is although these rates are very low, the populations represented by these racial groups are not very large, and it has a relatively little impact. Wisconsin, overall, the mean wouldn't change. Still get a fall less than the healthiest state, although the number improves.

What if we then focused on places, and moved the health of Milwaukee County and the rural counties up to the same as those non-urban counties, sort of small cities. And this is shown here. Again, eliminating or significantly reducing the disparities, the impact on the state. Still improves it, brings it not quite to Minnesota's low mortality rate, but significantly improves it.

The next issue which is, I think, one of interest is, in this age group, men are obviously not programmed to die before the age of 65. So one would call almost all deaths before 65 certainly preventable, at least in comparison to women.

So this disparity is real and unlikely to be genetically based. Although maybe some behaviors are genetically determined, risk behaviors. But if you, obviously, the eliminated gender disparity and mortality that would bring Wisconsin's mortality rate up to here. We would be the best in the country. Better than Minnesota, down to 225.

But I think interestingly, is what would be the effect of not focusing on racial and ethnic minorities, but on those with lowest education. This says high school or less, so these are high school grads. It represents 40% of the population in the state, not just in Milwaukee County or in southeastern Wisconsin, but these people obviously live throughout the state. What would be the impact of bringing that mortality rate to be the same as people with some college or very close to college grads? Well, can see the impact of that is Wisconsin's mortality rate drops to 206 per 100,000 and is clearly, by far the healthiest state in the nation.

So what's the effect of eliminating disparity by race? Some improvement in mean health in the state from 296 to 277. Not insignificant, but not as great as eliminating geographic disparities for rural and Milwaukee County residents, and certainly not as great as eliminating gender disparities. And here, the biggest impact would be to eliminate the mortality disparities that we see based on education. Bringing those with a high school education or less to the same mortality experience of those with some college, or more. And these too would accomplish Dave Kindig's goal, which is to make Wisconsin the healthiest state in the nation.

The major finding from this is eliminating health disparities in any category does improve Wisconsin's overall health, although the greatest potential in gain would be the elimination of disparities by education.

Well, let me turn then to the third surveillance project that we've worked on. And these are the county health rankings. Paul Peppard was instrumental in getting us started in 2003, and involved in the earlier rankings.

Obviously, Bridget Booske, Dave Kindig, Angie Kempf, and now Jessica Athens-- Actually, every graduate student that's worked with us has contributed to the rankings. This is the 2007, which I've handed out.

Again, just by way of summary we define health broadly, not just outcomes, mortality and health status, but these broad determinant categories. We measured the health of the 72 counties. In the last couple of years the city of Milwaukee really wanted us to have them on the rankings. So we now separate out the 73rd place in the state. It is modeled after the United Health Foundation's America's Health Rankings. And we define health broadly, but then summarize these measures into summary measures. And I remember Denny Fryback. I once copied a lecture, or actually his contribution to this summary measures of population health chapter.

I need to acknowledge Denny's work for the last decade, or more, on the value of summarizing population health, not just in summary measures of quality of life, but overall. This has turned out to not only to be sort of an intellectual challenge, but has enabled us to communicate results very effectively. We're not mired in the details of so many numbers. We can actually talk about the health in a check-up in the community. It's turned out to facilitate communication more so than I originally thought.

We provide on annual overview of outcomes and determinants. We do spark discussion of health issues, stressing the importance that health is determined broadly. And we have seen discussion about how insights from high-performing counties can be used to inform practitioners about what works, or at least hypothesize about what works. But then also there's been a great move to draw additional resources to less healthy counties.

Why rank?

First, it's done all the time. So it seems to work for others, law schools, hospitals, counties. There isn't hardly a day you go by when you don't open up and say we rank, or this ranks. It just seems to build on the competitive juices of the media and the public. It's also something that consumers and policymakers can easily understand. It does draw attention to target interventions. And again, as I said, to reward entities for high ranking, but also not in a way penalize, although that may be an inappropriate use, but draw resources to lower-performing counties.

Again this is the model, very simply. Health outcomes in populations defined as not just mortality, but quality of life, are determined broadly by determinants over the life course. And then there's something you can do about it at the policy or program level.

We use a lot of different data. This is taken a long time to develop relationships with the institutions. Bridget is still helping us work with some of the healthcare entities to try and get data that's population based and not provider based.

And this is the model that is probably hard to see, but you can see the handout. The health outcomes are driven by health determinants, and influenced by policies and interventions. And I'll just show quickly what makes up the model. Again, health outcomes, a combination of years of potential life lost, mortality measure. Very widely accepted standard. If there is a single metric of the health of a community, and you're forced to use one, people tend to fall back to years of potential life lost before age 75. But we draw in the general health status, give half the weight to this measure of population health, percent of adults saying that their health is only fair or poor.

Then, the healthcare measures, we give 10% of the determinant weight to healthcare, access and quality. Health behaviors, 40%, from tobacco, diet, alcohol, high risk sexual behavior and violence. Social and economic factors, education income and measures of social disruption. Then the physical environment, and we've really built this over the last couple of years based on feedback from the health department into air quality, water quality and measures of the built environment.

And this is the result, what people are interested in talking about first, which is where are the top performing counties. Ozaukee, this year, was healthiest in both outcomes and determinants, followed by Waukesha. The bottom of the list, Menominee county, the state's only Indian reservation that's entirely a county, and the city of Milwaukee second here. And this clearly, I think, we engage these communities much more from a problem-focus then the communities at the top of the list.

And this is a map of the state. This is health outcomes, a combination of mortality and quality of life.

You can see the northern tier counties rank in the bottom quartile. These central sand counties are surprisingly, right along the interstate really, right up here Mauston, Juneau county. You see a much lower health, in fact, than just the adjacent counties in central Wisconsin or western Wisconsin. And again, Milwaukee, southeast Milwaukee and Kenosha County at the bottom.

These are the determinants, and you obviously see that there's quite a bit of correlation. Again, lower determinants rates broadly defined central sand counties, and then the southeastern part of the state. And this is a correlation between outcomes and determinants. We wouldn't expect a perfect correlation, but this is quite a strong correlation. You see clusters of counties that tend to be unhealthy in mortality are also unhealthy in determinants, and vice versa down here. I don't know how much to make of the outliers.

It could be, and we tell this to these counties, that Price County has a high mortality, poor quality of life, but that their health determinants are pretty good. It may be that this is a community that's had economic development, or healthier behaviors that it's moving in the right direction. These are better determinants than outcomes. And these counties could be the opposite. It could be that Florence County has got long-standing good mortality rates, but that its profile of future health is not as good. But again even engaging in that discussion gets people at the table thinking about how health is determined and what their role could be in community health improvement.

Peter Vila, a graduate student last year. We used to just sort of tell the counties to go to the Web and read our spread sheets. He put them into a snap shot for each county. This is Dane County, which in a very easy way, you can see the rank and determinants and outcomes.

Some stability here, pretty good, 9th, 8th, 6th, 5th It seems to be moving up. We programmed some of that in, because we used multiple years of data and moved the frame, so we sort of protect against wild swings in outcomes and determinants. And you can see that this is also reflected in the trends in mortality.

This is Wisconsin and projection to 2015. Dane County is consistently better. And, if anything, maybe tracking a little better than the state. Here are the strengths and challenges. Then we provide to the counties their detailed information in healthcare, health behaviors. You can see the county rate. For survey data, we put in a margin of error, to be cautious about over-interpreting survey data.

Here's the state and then the rank. Same for social and economic factors and physical environment. And again Dane County, 72nd in environmental health. Very good in social and economic factors. Number one in the proportion of people without-- Let's see, no high school degree or employment rates are best in the state. But we've got bad air in Dane County compared to the rest of the state.

So the major finding from this third surveillance activity of ours is significant variation exists in health outcomes and determinants, and the least healthy places in the state include Menomonie County, City of Milwaukee, and some of the central and northern rural counties.

I'm actually going to skip over the problems. There are no problems.

(laughter)

I will go to the problems. And this is not perfect, the data aren't perfect. I think people tend to infer too much from minor differences in ranks. We see it all the time. Once you engage community members in a dialog, I think there's always the potential for over-interpretation. Incorrect assumptions about distance between items. This idea that there's low morale for low rank counties. The potential for manipulation of variables. And some counties can spin the data different ways or the media can spin the data different ways. We have competing interests.

We would like a stable model, but then as time goes on we find new ways to measure population health, and we tend to include it so that's a concern that the ranking three years ago for environmental health doesn't look like this year's. We think it's a better measure. That's problem of interpretation and communication when things are changing. And finally, this continues to happen, the pressure comes on the local health departments. What are you doing about it? And actually, it's a two-edged sword, in that we've worked with the local health departments to redirect that back to what are we doing about it broadly in the community.

So how do we evaluate whether surveillance can be used to improve population health? The first thing you have to do is you have to get noticed. And I think everybody-- Anybody here not seen these slides? So that's amazing.

You know, there's very few surveillance sets that everybody in the world has seen. Everybody in the United States probably, in health, maybe not the general public. But there's something about this map series that worked in population health. We really went from lack of awareness about trends and obesity, and actually these were some of the data that we helped collect when we were at the CDC, this behavioral risk factor surveillance system. Had no idea that it would be such a highly cited surveillance system.

In trying to communicate health information, we need to focus less on information and individuals, which is shown in "a", and more towards getting individuals, persuading individuals to make the right choices about health behaviors. But also focusing on providing information to policymakers so that they can make the right decisions about healthy communities and healthy policies. So in effect, what we've seen in the last ten years in surveillance communication is a move from simply providing information to inform to attempting to persuade policymakers to put the right programs and policies in place, evidence-based programs, that are driven by health information. The CDC calls this information for action, or providing information to those who need to know to make informed decisions, not just for information purposes but, in fact, to persuade them to make the best decision about population health.

Here's a logic model that we've developed to help us think about county health rankings, for example.

So, you have population-based data, lots of it. You do the rankings. We get media attention and local health officers use the report. The community would become engaged in the discussion, they would promote evidence-based health programs and policies, and population health would improve down the road.

We can ask four questions. How have we done in engaging the media, health officers and the community? We help engage the media by doing monthly teleconferences, it gets us feedback from the communities and it keeps them in the loop. We also focus on key messages, and not the overall details of the ranking, but the importance of broad determinants, of community approaches, and that there are things that can be done to affect community health. We've done an annual survey. Every year, we send out the rankings, we do a survey of the health officers, about how they have used the ranking and we use that the next year.

They've used it for needs assessments in their program evaluation. They've presented it to county health board, staff and community partners, and have used it as a way to catalyze coalition development, healthy community development. These are the headlines for the papers that have covered the rankings. This is just a picture of the "Waukesha Freeman," the "Milwaukee Journal-Sentinel." This is just this year, Winnebago County, northwestern, up in the Fox River Valley, ranks 8th out of 72 counties. Here's La Crosse quoting the local health officer, "We're headed in the right direction, but we have tons of work to do." So even a relatively healthy county uses it to promote action in binge drinking and smoking, which those of you know, Wisconsin health is a particular issue in La Crosse. Ozaukee County talks about ranking at the top of the list. Then Buffalo County, a small rural county, even gets covered about, again heading in the right direction, but have more work to do. Here's the Baraboo coverage.

We found it also being used in county board meetings and minutes of meetings, talking about how are we going to use this for our county health department. And here's a quote from one of them talking about how they plan to use this in their public health work plan.

Milwaukee, obviously, gets a lot of attention because of ranking at the bottom of the rankings. Here's the "Journal-Sentinel" article, "Milwaukee at the bottom of state health rankings." And this talks about Juneau County, the year being the state's unhealthiest. And I'll see if this might not work since I couldn't-- Nope, not going to work.

I basically have this in audio, which is, we do engage some reaction from communities. Here's a letter to me and Dr. Kindig about five major disagreements. This was a physician from Juneau County.

Here's the five-page letter that we received. And, "If your organization were actually serious about improving the health of the people in Wisconsin, not just providing employment for the public health researchers, it would begin collaborating with,

(i.e. helping not pontificating to)

the primary care providers of the state. I would appreciate a response. I intend to send this letter to various news entities, including those listed on your web site on or about April 1, notifying them of the inaccuracy of your data." Copied to everybody in the world: Medical Society, senators, presidents. Well, that did result in a meeting where I was called to Juneau County. We met in the courthouse.

It wasn't packed, but there were a lot of people there. In fact, I heard last week that was the biggest public health meeting ever in Juneau County, and the most diverse in the Juneau county courthouse. Senator Zade was there. But then I got called up to the capitol building to meet with Senator Dale Schultz and Sheryl Albers. Anyway, lots of things have happened. The health officer was quoted as saying she was actually "...pleased that this proposal is strongly promoting the media since I feel it was media that did the public health and big favor and was a key ingredient to making the people notice."

So conclusion, what we know is that plenty of data exists. You can generate media attention and our anecdotal information suggests that community engagement will follow. So I think we've shown pretty well, media engagement and local health authors pay attention.

But do we have evidence that the community gets engaged? And that's really our next step. How do you replicate what happened in Juneau County, in effect? Ranking poorly, lots of community engagement, people bringing resources to the table. And then answering the question, does community engagement lead to evidence-based public health programs? Well, I was surprised and pleased when the Robert Wood Johnson Foundation put out an RFP in June of last year called, "Advancing Public Health Practice and Policy Solutions." And their goals, the strategic areas were to build evidence for effective public health practice and policy, improve performance of local health departments, and increase advocacy for public health policies. And they said to do that through public health laws, regulations and policy, public health advocacy or communications in engaging hard to reach and/or high risk populations like small, rural underserved communities.

So we felt our county health rankings was perfectly suited for this call for proposals. So we put in a proposal with a goal of using the project to engage communities in community health improvement.

Hypothesizing that our proactive, low-cost health communication intervention could simulate and broaden involvement in community health improvement. The objectives, I'm going to just skip over.

We use media advocacy. We're proposing, since we haven't started. We actually got funded. We heard December 1, the project started. It's a two-year $200,000 grant. We're going to use media advocacy training, purchase local radio time and engage community leaders in the results. Using a quasi-experimental design. We're going to pick the 20 least healthy counties, ranking 50th or lower.

And then we'll divide them in ten pairs and randomly pick one to be the intervention and one to be the control community. We'll do surveys of stakeholders in the communities using sort of a snowball referral process.

And then once we do the baseline assessment we'll pick ten communities to intervene into, catalyze the discussion and action in those intervention communities.

So whereas the rankings simply provide information or press release, we get a little bit of media coverage and community engagement is rare. With our grant, we want to intensify the trainings, promote active engagement of the media and community, try and get people involved in evidence-based program planning, and hopefully drive the health outcomes down the road.

So in summary, we pretty much demonstrated that rankings do garner media attention, have anecdotal evidence of community engagement. And our feeling is that the use of broad measure in the health rankings engages broader partners consistent with the IOM model. The challenge for us is to replicate this community engagement experience in other communities, and to have the discussion move from, "We've got a problem." to "What do you do about it?" But we think this is potentially a feasible low-cost method to catalyze community improvement.

And I'll finish with my acknowledgement slide. Bridget Booske, Angie Kempf, Jessica Athens, Dave Kindig, and a number of other graduate students past and future.