

## **Guidelines Applied in Practice (GAP) Satellite Conference**

**July 26, 2001**

**1:00-2:30 p.m. ET**

**Broadcast live from the studio of the Centers for Medicare and Medicaid Services**

**Harlan Krumholz, MD, FACC**

Hello and welcome to the satellite broadcast on “Improving Cardiovascular Care Through Local Partnership Efforts: the Guidelines Applied in Practice (GAP) Initiative.” This 90 minute interactive broadcast is sponsored by the American College of Cardiology and the Centers for Medicare and Medicaid Services, formerly the Health Care Financing Administration.

My name is Dr. Harlan Krumholz and I will be the moderator of this broadcast. I am a member of both the American College of Cardiology and the American Heart Association.

I chair the Cardiovascular Conditions Clinical Advisory Panel of the Joint Commission on the Accreditation of Healthcare Organizations and I chair the AMI Performance Measures Writing Group of the ACC and AHA.

I also serve as a clinical coordinator for two of CMS’ national priority improvement topics, the National Acute Myocardial Infarction Project and the National Heart Failure Project.

The purpose of the broadcast is to improve the quality of cardiovascular care in several ways:

- \* Fostering state level partnerships between ACC members and the nationwide network of Peer Review Organizations (PROs);
- \* Sharing the strategies used in the Guidelines Applied in Practice or GAP Project in Southeast Michigan (an effort that was developed jointly by ACC, the Michigan PRO and the Greater Detroit Area Health Council) to assist others in designing similar projects in their own states; and,
- \* Emphasizing the need for champions at the local level to lead the way toward improvement.

The broadcast will feature representatives from the Centers for Medicare and Medicaid Services, the American College of Cardiology, the American Heart Association, and the Michigan Peer Review Organization. It will include discussions on the need for improvement in cardiovascular care, the benefits of collaboration in achieving that improvement, and the successes attained through one specific collaborative effort, the GAP Project in Southeast Michigan.

The broadcast will also mention analogous collaborative GAP projects currently being developed for heart failure in Oregon and stable angina in Alabama.

The format of the broadcast will include brief remarks by several panel members, followed by a presentation of the Guidelines Applied in Practice (GAP) Project, and then a question and answer session.

Viewers, members of the American College of Cardiology and Peer Review Organizations from around the country—and we have more than 50 sites—will have ample opportunity to pose questions to the panel via a live, interactive question-and-answer session at the end of the broadcast.

Viewers can also fax or call in questions any time during the broadcast. The toll free telephone number seen below is 1-800-953-2233 and the fax number is 410-786-1424.

In addition, for this broadcast we are providing an audio-only telephone line which is available by calling 410-786-7373.

I'd like to introduce members of the panel to you in the order that they will present.

- \* First, Dr. Stephen Jencks, assistant surgeon general and director of the quality improvement group at the Centers for Medicare and Medicaid Services;
- \* Dr. Douglas Zipes, president of the American College of Cardiology;
- \* Dr. Lynn Smaha, past president of the American Heart Association;
- \* Dr. Kim Eagle, chief of clinical cardiology at the University of Michigan Health System; and,
- \* Cecelia Montoye, RN, MSN, project manager for the GAP Project at the Michigan PRO.

And now, let's start the broadcast with our first speaker, Dr. Stephen Jencks.

For some background, Dr. Stephen Jencks is the Director of the Quality Improvement Group in the Office of Clinical Standards and Quality, Centers for Medicare and Medicaid Services (formerly HCFA) and Assistant Surgeon General in the U.S. Public Health Service.

He leads Medicare's Peer Review Organization and ESRD Network Programs, which are national systems of contractors that are funded specifically to improve the quality and efficiency of care for Medicare beneficiaries.

Dr. Jencks led the reengineering of the PRO and ESRD Network programs from a primary focus on deficient practitioners, so called "outliers," to the current focus on national efforts to achieve measurably improved care and outcomes for all Medicare beneficiaries specifically through systems improvements.

As directors of quality improvement groups at CMS, he manages both a contractor budget of \$370 million that is primarily devoted to quality improvement and a program to create national and local partnerships to support improvement. Dr. Jencks.

## **Stephen Jencks, MD, MPH**

We are delighted to co-sponsor this broadcast and the discussion with the American College of Cardiology, and are equally delighted that the American Heart Association has shown its support for the broadcast through Dr. Smaha's participation today. The broadcast is an example of the exciting opportunities for the Centers for Medicare and Medicaid Services to work with national organizations such as the American College of Cardiology and the American Heart Association to promote our common goal of improving cardiovascular care and, specifically today, care for acute myocardial infarction.

CMS' goal for this broadcast is to facilitate the development of state level partnerships between the Peer Review Organizations, or PROs which are CMS' state-level agents of quality improvement, and chapters of the American College of Cardiology and regions of the American Heart Association, whose members are leaders in AMI care. With our broadcast partners, we intend to do four things.

- \* First of all, to raise the awareness of cardiology clinicians that together we need to close a substantial and very well documented gap between standards of practice as embodied in guidelines and the care which is actually delivered to patients;
- \* Second, to identify the opportunities for us all to work together to close that gap;
- \* Third, to share effective improvement strategies; and
- \* Fourth, to form common communication so that we will be giving the same message not only to the public but to clinicians.

CMS is committed to evidence-based quality improvement approaches on the behalf of 40 million Medicare beneficiaries and its Medicaid beneficiaries.

To this end, CMS contracts with a PRO in each state to improve the care delivered to Medicare beneficiaries in that state as measured by accepted quality of care indicators. Recognizing both the burden of illness and the opportunities for performance improvement, CMS has designated three of its six national priority areas in the cardiovascular area: AMI, heart failure, and stroke are all national improvement projects.

The indicators themselves are the result of collaboration.

Cardiology opinion leaders participate in the development and implementation of measurable quality indicators and improvement strategies via active roles on CMS expert panels and the national cardiovascular project leadership teams.

CMS' indicators for AMI are derived from the ACC/AHA Guidelines for the Management of Patients with Acute Myocardial Infarction with the help of the organizations here today.

The CMS role is to highlight priority topics to support improvement activities and to bring those to a nationally agreed contract program in the PROs. CMS' priority is more than measurement—we need to improve care and to bring performance on the measures close to 100 percent.

This is the second vital area of partnership—actually improving things.

CMS' commitment will help, but CMS is no clinical leader—clinicians look to the [American] College of Cardiology and the [American] Heart Association for clinical leadership.

The PRO role in supporting quality of care improvement is to develop local relationships and actively support the implementation of improvement strategies with clinical partners. Those partnerships are vital to us. We know that these quality improvement efforts are always implemented at the local level, by committed improvement teams, such as that you'll be hearing about from Michigan GAP partners, which you will hear about also as we go on today.

Their knowledge of local priority ensures that relevant and feasible priority setting and program strategies will be adopted.

Many PROs have already established productive relationships with local chapters and members of [the] ACC and AHA, and you will hear more about that from other members of the panel.

This broadcast features one successful ACC-PRO collaboration, the Guidelines Applied in Practice Project in Southeast Michigan.

The strategies employed by the GAP partners demonstrate commitment to a common goal and effective implementation strategies.

PROs have the resources, tools, and expertise to work in partnership with the clinical communities they serve. They are eager to partner with strong opinion leaders like Dr. Kim Eagle.

I realize that not all PROs are positioned to adopt the GAP model or the [American] Heart Association's Get With The Guidelines [Program] today.

However, I urge all PROs to actively explore the range of common interests and potential collaborative activities with local ACC and AHA members and with other clinical leaders in your communities and to apply a "GAP-style" approach to building relationships with partner organizations and institutions.

I am confident that interested parties will find opportunities to develop their own timelines and local quality improvement efforts.

I also urge you not to be diverted by the differences in names—what CMS calls the "Cooperative Cardiovascular Project," what ACC calls "GAP", and what AHA calls "Get With The Guidelines"—are strongly related and highly synergetic.

We here today will take care of differences in nomenclature, so that you can take care of the much more challenging differences between what we know is the right thing for our patients and what is actually happening today. Thank you.

**Dr. Krumholz**

Thank you Dr. Jencks. I'd now like to introduce our next speaker, Dr. Douglas Zipes.

Dr. Douglas Zipes is president of the American College of Cardiology. He is a member of the ACC Board of Trustees and Executive Committee, the Annual Scientific Session Program Committee, and the Government Relations Committee. Dr. Zipes chairs the ACC Development Committee through which he has played a key role in overseeing the ACC's corporate partnerships.

Dr. Zipes has served on the Board of Directors of the AHA. He is a member of the ACC/AHA Joint Officers Committee and is past president of the Association of University Cardiologists. He has contributed to the scientific knowledge base of the cardiology community as founding editor and editor-in-chief of the *Journal of Cardiovascular Electrophysiology* and *Cardiology in Review*. He has also published more than 600 articles, 13 books; is a co-editor of the third edition of *Cardiac Electrophysiology: From Cell to Bedside* and of the sixth edition of *Heart Disease: A Textbook of Cardiovascular Medicine*. Dr. Zipes.

**Douglas Zipes, MD, FACC**

Thank you for that kind introduction, Dr. Krumholz.

It is a great pleasure to be here today with all of you.

On behalf of the ACC, I'd like to begin by expressing our appreciation to CMS for cosponsoring this broadcast and to the PROs for co-hosting it.

I would also like to thank my esteemed colleagues, Dr. Krumholz and Dr. Smaha, for participating with us today.

It is an honor to be working with such dedicated professionals toward our common goal of improving the quality of cardiovascular care for all.

The main purpose of today's conference is to provide an opportunity for you to discuss the College's Acute Myocardial Infarction Guidelines Applied in Practice Project in Michigan with the Principal Investigators, Dr. Kim Eagle and Ms. Cecelia Montoye.

We are transmitting this presentation via satellite conference because, although the participants were willing, it simply would not have been possible to send them to all of the 50 States!

This satellite conference is only one of many strategies that we are exploring to disseminate the results of the AMI, Acute Myocardial Infarction, GAP Project.

Dr. Eagle and Ms. Montoyo have made presentations in numerous national forums and have several more scheduled over the course of the year; we are working on building a comprehensive GAP web page; and we are piloting various technologies like today's broadcast.

We recognize that no single strategy will reach everyone, but hope that a combination of strategies will extend our reach for as far as possible and we welcome your suggestions for other approaches.

I'd like to start by giving you a brief history of the ACC's Guidelines Applied in Practice, or GAP, Program which all started with the Acute Myocardial Infarction, or AMI, GAP Project in Michigan—the focus of today's program.

It simply will not be possible for me to give enough kudos to the AMI GAP team in Michigan. Their truly heroic efforts and remarkable success have inspired the ACC to move forward, both by expanding the AMI GAP Project—more from Dr. Eagle on this later—and also by expanding the GAP Program.

The American College of Cardiology, together with its partner, the American Heart Association, have produced respected guidelines for over 20 years.

There's a lot of evidence to show that when clinical guidelines are implemented, the quality of care improves.

Unfortunately, there's also a lot of evidence to show that guidelines are all too often not implemented.

The College was very concerned about this, and set out to learn what we could to help address this problem.

In 1999, we started a special project called "Guidelines Applied in Practice" with the aim of getting our guidelines off of the shelf and to the point of care.

We first formed a GAP Steering Committee, composed of leading members of the College and chaired by Dr. Raymond Gibbons who also chairs our joint ACC/AHA Task Force on Guidelines.

The GAP Steering Committee conducted extensive research into the obstacles impeding guideline implementation and effective methods that could overcome these obstacles.

They established the general parameters for the GAP Project, selected the recently updated AMI Guideline as the basis for the project, and chose Dr. Eagle and his team in Michigan to conduct the project.

The Michigan team took it from there, with ongoing oversight by and support from the GAP Steering Committee, and you will shortly hear the details of the project from Dr. Eagle and Ms. Montoye.

Because great minds think alike, our colleagues at the American Heart Association were simultaneously working on a very similar project that evolved into the Get With The Guidelines Program that Dr. Smaha will describe for you.

The essential features of the two programs are very similar:

- \* Both emphasize key evidence-based recommendations for care;
- \* Involve partnering to achieve a common goal;
- \* Rely on opinion leaders to champion the cause;
- \* Are addressed not only to cardiologists, but to everyone involved in the care of the patient; and
- \* Seek to involve the patient;
- \* Translate the guidelines into tools that are used at the point of care; and
- \* Use data for motivating and reinforcing change and for evaluating the impact of the program.

The major differences are in the focus of the first two modules and in the resources available for implementation.

The AMI GAP is focused on care of the AMI patient from admission through discharge, whereas the coronary disease module of the Get With The Guidelines is focused on the patient from discharge and beyond.

Obviously there is wide overlap at discharge.

Both programs offer modules for quality improvement, utilize opinion leaders, and provide guideline implementation tools, but Get With The Guidelines offers a training program and a data collection tool in addition.

The ACC and the AHA see the two programs as being completely compatible and hope that you will not perceive a need to choose one or the other.

To the contrary, one of the key features of GAP is partnerships, and we urge you to turn to the AHA's Get With The Guidelines Program as a key partner in any [guideline] implementation endeavor you might be inspired by today's conference to undertake.

The Get with the Guidelines Program is a tremendous resource available to all of us and we should all be eager to take advantage of it.

The ACC and AHA are working together to determine how these two programs that germinated separately can move forward together.

But in the meantime, we hope that you will not be confused by the existence of these two programs, but will rather see them as enriching the options available to all of us to achieve our common goal.

Both the ACC and the AHA care most about whether you succeed in improving cardiovascular care and do not expect you to accomplish that exclusively via GAP or Get With The Guidelines. We expect that at the local level you will be able to develop a combination of both that is ideal for your particular circumstance.

The PROs also represent a tremendous resource and are eager to work with all of us toward our common goal.

We are hoping that this conference will stimulate ACC Chapters and the PROs, together with the AHA Regional offices, to identify opportunities to combine efforts that will improve our cardiovascular care.

One of the most important lessons of GAP is that we can accomplish much more [by] working together than any one of us was able to accomplish separately.

The GAP web page links you both to the AHA's Get With The Guidelines and to all of the PROs.

ACC's vision for GAP is to ultimately develop strategies and tools for implementing all of the guidelines and to have our membership supporting these strategies and tools to improve cardiovascular care for everyone.

Partnerships are a key feature of GAP and were critical during the development and testing of the programs, to accomplish dissemination of the lessons learned, and ultimately to implement what we learn.

This year, in addition to the ongoing and expanding AMI GAP Project in Michigan, we have two additional programs.

The Heart Failure GAP Project in Oregon was launched by Dr. Len Christie, past ACC Governor of Oregon, and is being lead by co-principal investigators, Dr. Mark Huth, a Fellow of the College, and Dr. Ruth Medak, an internist with the Oregon PRO.

The Stable Angina GAP Project in Alabama was launched by Dr. Gerry Pohost, past ACC Trustee, and is being lead by co-principal investigators, Dr. John Canto, a Fellow of the College, and Dr. Catarina Kiefe, an internist affiliated with the Alabama PRO.

You can track the progress of these projects on our GAP web page, and, if you do, you will see that both involve a wide range of partnerships.

Over the next few years, we plan to expand the ongoing GAP Projects and launch additional ones.

In the course of disseminating the results of our AMI GAP Project in Michigan, we have heard from our members about the wide variety of guideline implementation and quality improvement activities that they are involved in.

We will soon add to our GAP web page a clearinghouse of sorts where you can learn about all of these efforts and find out how you can participate.

I would like to close by making a special appeal to my fellow cardiologists.

GAP has demonstrated the great importance of opinion leaders and partnerships.

We have an opportunity—I would even say a responsibility—to try to make a difference.

We can do this by applying the lessons learned in the AMI GAP [Project] at home, by participating in Get With The Guidelines, by staying tuned to the progress of the Heart Failure and Stable Angina GAP Projects, by assembling a group and applying to be the site of one of the future GAP Projects, and by contributing to the GAP Clearinghouse.

The College is very excited about and committed to GAP, which goes to the very heart of our mission to promote optimal cardiovascular care.

We look forward to working with all of you in the coming years toward this common goal. Thank you.

**Dr. Krumholz**

Thank you, Dr. Zipes. I'd now like to introduce Dr. Lynn Smaha.

Dr. Smaha is the past president of the American Heart Association. He has been a practicing interventional cardiologist for almost two decades and served as CEO of Multispecialty Group Practice Northern, PA with 250 physicians and 30 offices. Dr. Smaha.

**Lynn Smaha, MD, PhD, FACC**

Thank you, Dr. Krumholz.

I want to thank my colleague Dr. Zipes for inviting me to be a part of today's conference.

It is a great pleasure to be here with all of you today, but particularly to express the American Heart Association's admiration for the accomplishments of the AMI GAP Project in Michigan.

To tell you a little bit about the American Heart Association's Get with The Guidelines Program, I'd like to spend a few minutes to talk about how AHA and ACC are working together and with the PROs toward our common goal of improving the quality of cardiovascular care for all.

I'd like to echo Dr. Zipes comment about how honored I feel to be working with the dedicated professionals here on this panel and out there in the audience.

As my friend Dr. Zipes has said, because great minds think alike, the American Heart Association has been developing a program that is very similar to GAP called Get with the Guidelines. We have also reached out to partner with such organizations as the Peer Review Organizations to leverage partnerships that help us improve care.

The AHA has set a strategic goal that by the year 2010, we will reduce coronary heart disease, stroke and risk by 25 percent.

From a tactical perspective, one of the components that we are addressing to decrease risk is due to secondary events, that is, patients who have suffered cardiovascular events and how we can prevent them from having subsequent events.

In ways similar to the thought process behind GAP, the American Heart Association volunteers and staff began to look at a concern about the ineffective application of known scientific guidelines to those patients who have suffered cardiovascular or stroke events.

We know from large multicenter trials that certain specific treatments such as aspirin, beta blockers, ACE inhibitors, lipid treatment, and smoking cessation have significant positive impact on secondary events, but that these preventive measures are not being applied effectively and systematically.

A pilot project was begun in the New England region of the American Heart Association looking at those patients who were being discharged from the hospital after suffering cardiac events, and subsequently analyzing the degree to which patients were discharged in compliance with the known guidelines.

We noted significant opportunities for improvement. The pilot project then implemented some specific measures to be applied at the time of discharge and by utilizing a checklist and each time assessing the degree to which patients were discharged on the proper therapy.

The results of the pilot identified areas of weaknesses and areas for improvement. At the time of discharge in their program, patients who were being discharged from the hospital after suffering myocardial infarction receive[d] at the time of discharge [a] process or checklist review of each of the scientifically supported secondary prevention recommendations that are outlined in the ACC/AHA Guidelines for Secondary Prevention.

It's an Internet based tool that can be accessed via computer at the nurse's station or the bedside. It is utilized to assess each item on the guidelines as to whether or not the individual patient is a

candidate for aspirin, beta blockers, ACE inhibitors, and so on. The answers are “yes they are,” “no they’re not,” or “why not.”

The completion of this checklist takes an average 1-2 minutes and entails “21 clicks” on the computer.

The results are automatically entered into a database and are trackable (and ORYX compatible). We are able to not only create reports in an institution for continuous quality improvement purposes, but it also generates a letter to the patient regarding proper treatment and follow-up, as well as a letter to the referring physicians about what was done and what drugs the patient was sent home with.

In addition, the Internet-based tool has “pull down” screens making a wide variety of information such as lists of drugs and doses that are available for the practitioner for reference at the bedside.

Our plan to “roll out” this program includes a series of CME “train the trainer” programs nationwide, subsequently developing champions in each location in each hospital that finds this product useful are important steps and we look forward to working with the College in this regard as well.

As one can see, there’s a significant overlap between Get With The Guidelines and GAP, each focus[ing] on different portions. Ours focus on pieces of the discharge in accordance with secondary prevention guidelines at the time of discharge. The GAP program focuses on other pieces.

These programs can be used separately, but they can be used in combination.

From a clinician’s perspective, a tool and a set of information that’s available to me helps me provide better care to my patients without adding undo, burdensome, extra paperwork and provides the healthcare system with a continuous quality improvement protocol at the same time.

I would like to emphasize what Dr. Zipes has said about GAP and Get With The Guidelines being complementary rather than competitive programs.

The two programs indeed have many elements in common - in fact, the Hospital Toolkit that was provided in Get with the Guidelines has been pilot tested in the GAP Project in Michigan.

Again, the major differences between the two Programs are in the focus of the first two modules and in the resources available for implementation.

Hospitals interested in participating with Get With The Guidelines but desiring to expand the focus of care from admission to discharge and beyond could incorporate pieces of the GAP approach as well as Get With The Guidelines.

Similarly, hospitals seeking to implement a GAP program could avail themselves of the support infrastructure offered in Get With The Guidelines—particularly the training program and the data collection tool.

Like GAP, a key feature of AHA’s Get With The Guidelines Program is partnerships, and we urge you to consider the American College of Cardiology as a key partner in any guideline implementation endeavor that you might be inspired by today’s conference to undertake.

As Dr. Zipes has said, both the ACC and AHA care most about whether you succeed in improving cardiovascular care and do not expect that you will accomplish that strictly by way of GAP or strictly by way of Get With The Guidelines, but more realistically through a combination of both.

I look forward to hearing from Dr. Eagle and [Ms.] Montoye about their project. They and their team in Michigan have impressed and inspired not only the ACC, but all of us at AHA as well. Thank you.

### **Dr. Krumholz**

Thank you, Dr. Smaha. I’d now like to introduce Dr. Kim Eagle and Dr. Cecelia Montoye who will provide a presentation of the Guidelines Applied in Practice Initiative.

Dr. Kim Eagle is the Chief of Clinical Cardiology at the University of Michigan Health System. In this capacity he has overseen a vigorous outcomes research program focused on quality, cost effectiveness, use of practice guidelines in cardiovascular care, and the evaluation of management of acute coronary syndromes.

Dr. Eagle has served the ACC as a director of numerous extramural programs. He is a member of the ACC/AHA Guideline Task Force, the chair of the newly formed ACC/AHA Task Force for the Development of Performance Measures in Cardiovascular Care, for the [ACC] Annual Scientific Sessions Program Committee, and is the new editor of the *ACC Current Journal Review*.

Cecelia Montoye, nurse, project manager for the GAP Project at the Michigan PRO. She received her BSN from Eastern Michigan University, her MSN from Madonna University, and has been in nursing for more than 20 years. With a background in critical care and emergency nursing, Ms. Montoye started work as a project manager at MPRO, the Michigan PRO, in 1995.

As AMI project manager in the 6th Scope of Work, she served as Co-Principal Investigator with Dr. Kim Eagle on the GAP Project in Michigan.

Let’s start with Dr. Eagle. Dr. Eagle.

### **Dr. Eagle and Ms. Montoye’s GAP Presentation**

## **Dr. Eagle**

Thank you very much. On behalf of the many hospitals, cardiologists, internists, family practitioners, nurses and patients involved in the Southeast Michigan Project, we're very excited by the chance to be here and present to you some of the results of our work. Over the next few minutes, Cec and I will present the methods and results and the conclusions of the initial GAP project in Southeast Michigan.

I will focus my remarks on the methods and major results. Cec will talk about some of the strategies that were enhanced by the partnerships and the overall conclusions. We will do this with a series of slides and graphs, which will provide you additional information regarding the project outcome.

If I could have the first slide up: the importance of this project is focused especially on the idea that we take information from the national guideline and design tools that are used right in the care itself of patients with acute heart attacks.

From the start of their admission to the moment that they're discharged, this project really tests the idea that you can put the guideline into the care itself. It also tests the interesting triangle of involving not only the physicians and nurses, but also the patients themselves.

I will discuss in the next few minutes the partnership that was involved in this project [and] mention some important features of the hospitals. We'll talk about the tools and the importance of the opinion leaders.

I won't have time to take a great deal of focus on the timeline. I would like to say that the timeline involved in this project was very vigorous. We started the project and finished it in a single calendar year, so-called rapid cycle change, and I believe that this glimpse of success tells us that this type of rapid change is possible with a concerted effort.

The partnerships involved in this project cannot be emphasized enough. First the American College of Cardiology, a premier specialty society, provided deep resources in the form of its GAP Committee and the Acute MI Committee that formed the national guideline. In fact, both of these Committees helped us develop the template tools, reviewed iterations of those tools, and made sure that the various things that we were doing inside the hospitals, trying to promote quality of care, was indeed consistent with the national guidelines.

The Greater Detroit Area Health Council was also a very important partner. This is a very interesting coalition between businesses, employers, insurers, and providing institutions and health systems in the Greater Detroit area. This group was critical to us as we worked within hospitals in the Detroit area to raise awareness and help us focus on the task at hand.

Also, very fortunate we were with the Michigan PRO which has been a high quality partner in quality assurance and improvement in Michigan for some time. It has been working with us in various venues to improve cardiovascular care in the region.

Time does not permit me to mention all of the physicians, nurses, and other individuals involved from the ten hospitals that are involved with this project. This is clearly their work, not mine nor Cec's and we want to thank them for all of the efforts that they extended to see if this type of rapid change quality improvement could work.

The GAP team is composed of particularly physicians and nurses from six health systems in the Greater Detroit area. These six health systems have worked with the Greater Detroit Area Health Council to think about and implement quality improvement efforts in our region. We were very fortunate to have physician and nurse leaders from all six health systems participate in this regional project. As mentioned before, the ACC had strong representation with staff members. MPRO, as mentioned before, was critical to our success in helping to measure the before and after implementation of GAP, and the Southeast Michigan Forum was an important partner throughout.

This slide shows you some characteristics of the ten hospitals that were involved with GAP. It's important to note that we tried to get a range of hospitals in the project. Eight of the ten were teaching hospitals, but seven of the ten were relatively small in terms of the number of heart attack victims they admit. As you know, much of the work done in quality improvement has been in large teaching institutions. We were quite interested in seeing whether smaller hospitals that may be more representative of smaller communities might also be able to implement such a project effectively. Two of the ten hospitals were predominately osteopathic and a minority of representation in the patients was critical. I'm happy to say that half of the hospitals had more than 10 percent of the patients in the heart attack project were of the minority group.

This slide shows you the tool kit used for the gap project. This included standard orders which began at the time of admission and exercised key targets of the guideline.

The AHA and ACC pocket guideline and pocket card, these were distributed to all of the hospitals and providers during the kickoff grand rounds that was held at each one.

The clinical pathway was for the nursing staff in particular. This emphasizes key milestones in care as the patient goes through. We also had a single page patient information form. This form in lay language helped the patient understand what to expect during their hospitalization for acute heart attack, including first day, second day, and subsequent.

A very important tool was the patient discharge form. In this form the patient at the time of discharge with either their nurse or doctor goes over the key targets of care as the patient goes home. This emphasizes medications, lifestyle change, and important follow-up information. In order to try to incent the hospitals and physicians and nurses, a hospital performance chart was provided and shown during each of the hospital grand grounds kick-offs. This showed them their data for evidence-based therapy for acute MI from the last year or two.

Finally, one of the tools were chart stickers. These were placed on each of the patient's charts identifying [them] as an individual where the systematized approach to care is being attempted and sort of raising the awareness of all the staff that we're trying to achieve key quality indicators in this situation.

All of the tools were introduced at a grand rounds in each hospital. The templates that had been developed by the Steering Committee and signed-off by the AMI and GAP Committees were then modified for local use. The ACC worked with each hospital to customize the tools to the look and form that they felt would be most beneficial in their environment.

The opinion leaders are a key part of this project. From an internal point of view it was very important that each hospital had a physician leader and a nurse leader who we could work with who would essentially “own” MI quality for that institution. And we wanted to be sure that we had a reporting line of where we could go in terms of implementing process change, dissemination of the tools, etc.

The external opinion leaders were also very important. Physicians and nurses from the six hospital systems were divided up and each hospital in the project had a doctor and a nurse from another health system who worked with them and helped them think about barriers to change; how to implement the tools, how to get the most success with customizing the tools for local use.

This slide shows you the performance measures that we looked at in this project and they’re very well known to you. They’re part of the CCP project and, certainly, evidence-based therapies tell us that patients who receive these types of treatment on average do better. In the early hours of acute MI, we focused on aspirin use, beta-blocker use within 24 hours, the median time to reperfusion—be it with [thrombolytics] or balloon angioplasty, and whether an LDL cholesterol was measured.

Later in the hospitalization, we focused on aspirin at discharge, use of beta blockers at discharge, ACE inhibitors, whether there was evidence that smoking cessation counseling was achieved, and whether pharmacological drugs were offered, and finally whether high cholesterol led to a treatment. It’s important to emphasize in the data that I’ll show you [that] these parameters were accessed only in ideal patients; that is, patients for whom you would all agree that these therapies are appropriate and no contra indications existed.

This slide shows basic demographics of the GAP Project in Michigan. The baseline aggregate includes 735 patients who were collected in 1999 from the ten hospitals. Roughly two thirds of these were Medicare and one third were non-Medicare. See that there were 914 patients measured in the year 2000 after we had implemented the GAP Project. Overall, the GAP implementation included grand rounds at the ten hospitals over a three month period, and then approximately three months to implement the project locally, and then a remeasurement which took three to four months.

If you look at the data, you’ll notice that roughly 45 percent of the patients in both groups are female, approximately 20 percent are minority, [and] the mean age was roughly 70 years. But notice that there’s a significant percentage of patients who are beyond the age of 75—some of the older patients where we know that previous assessments of quality have shown significant gaps in what we would like to do and what the charts tell us we actually do.

Over the next couple of slides I'd like to show you the main results. This slide first in aggregate shows you a look at the results, before and after GAP, for the use of aspirin, beta blockers and whether LDL was measured in the first 24 hours. Also on this slide you'll see data regarding the use of time to lytics and PTCA for primary angioplasty. Aspirin use improved from 81 to 87 percent after GAP was initiated. Beta-blocker use increased from 65 to 74 percent, and there was a trend for more measurement of LDL cholesterol in the first 24 hours in the second period, that is, after GAP was implemented.

As you look at the time to reperfusion for lytics and PTCA, we did not see a substantial benefit from implementing GAP. This suggests to us that we have more work to do in working with emergency departments in trying to initiate protocols that lead to more timely reperfusion.

Next slide shows you aggregate results for the later indicators for the overall groups. Please notice that aspirin use at discharge increased from 84 to 92 percent. There was a trend for increased use of beta blockers to 93 percent. ACE inhibitor use was from 80 to 86 percent. Smoking cessation counseling was evident in the chart in 65 percent of patients after GAP and only 53 percent before. Cholesterol was treated in 75 percent of individuals versus 68 percent before. Not all of these differences are significant, but the trend is in the right direction in every case and many of them are highly significant. Certainly, if one looks at smoking cessation counseling, one realizes we still have a lot of room to improve even though there was a difference as a result of GAP.

The next couple of slides, we break down the data and look at non-Medicare and Medicare patients separately. On the left-hand side of your screen, the slide shows the early indicators for non-Medicare patients, and on the right-hand side for Medicare patients. Generally, aspirin use was high in the non-Medicare group—around 90 percent. There was a trend, although not statistically significant, for improvement in the use of beta blockers and LDL cholesterol being measured, but we saw more differences in the Medicare population. It was a highly significant increase in aspirin use, from 77 to 87 percent. Also, beta-blocker use went up 10 percent from 63 to 73 percent. And almost as similar, a 9 percent increase in LDL cholesterol being measured. These results suggest that the Medicare patients, in particular, may have benefited from this quality improvement initiative.

The next slide shows the results in non-Medicare and Medicare looking at late indicators. Overall in non-Medicare groups, the aspirin use at discharge, beta blocker and ACE use is relatively high. Once again, we saw particular benefit in the Medicare population. Discharge aspirin use went up 10 percentage points from 82 to 92 percent. There were similar favorable trends for beta-blocker use and ACE inhibitor use in the Medicare group.

If we look at smoking cessation counseling and cholesterol treatment in non-Medicare and Medicare, once again we see some interesting differences. First of all, there were trends favoring more documentation of smoking cessation counseling in non-Medicare and cholesterol treatment in non-Medicare although not statistically significant. There was a highly significant increase in evidence of smoking cessation counseling in the Medicare population from 28 to 50 percent. Certainly, these data imply that we still have a lot of room to move, particularly in the area of smoking cessation counseling therapy and cholesterol therapy as well.

This slide shows you some very interesting data comparing the results in men and women. As you know, there have been a lot of studies that have suggested that there may be a gap in what we do for women with acute heart attack care as compared to men. This study suggested that women might be particularly likely to benefit from a quality improvement effort such as this one. If you look at early aspirin use in males, there was not much of a difference. But a highly significant improvement up to a level equal to that of men was seen in women for early aspirin therapy after GAP. Beta-blocker use was around 70 percent for men in both parts of the study, but for women a highly significant improvement was seen after GAP was initiated with beta-blocker use going from 55 to 75 percent.

The next several slides I think offer an even deeper glimpse into the possibilities of projects like this. In the analysis, we actually looked in the chart review to see whether or not the tools had been used as evidenced by the chart review. We were particularly interested in seeing whether or not the use of standardized orders correlated with a higher level of adherence with early indicators, and, similarly, we were very interested in whether use of the discharge tool correlated with a higher adherence to discharge goals at the time of discharge.

The next two slides will show you these results in bar graph form. The first bar on the left is before GAP. The bar in the middle indicates after GAP, but no evidence that the tool was in the chart review, and the far right hand bar in each indicates the level of adherence when we saw the tool used in the chart. Notice that aspirin use achieved 93 percent when standardized orders were used. Beta-blocker therapy was the highest that we saw, 77 percent, when the standardized tool was used. And LDL cholesterol was measured in 82 percent if standardized orders were used, much higher than in the other GAP patients and certainly in the pre-GAP patients. Similarly, if we look at the correlation between the discharge tool and late indicators, we see the same general trends. Aspirin therapy was achieved in 98 percent of patients when a standardized discharge form was used. Beta blocker reached 100 percent and the ACE inhibitor use reached 90 percent when the standardized tool was used.

We saw similar results in smoking cessation counseling and dietary counseling and cholesterol therapy: smoking cessation counseling rates of 86 percent if the tool was used, dietary counseling of 90 percent, and cholesterol treated, that is LDL above 100, in 92 percent. These data certainly provide information to suggest that if we actually use the tools from start to finish our adherence to these key quality goals is enhanced.

I'd like to now turn comments over to Cec who will talk a little bit about the strategies that were enhanced by the partnership and our overall conclusions. Cec.

**Cecelia Montoye, RN, MSN**

Thank you, Dr. Eagle. You know, from a project manager's perspective, even though there were a few challenges to overcome with this project, it's been the most exciting and rewarding project I've had the opportunity to work with.

You might be asking yourself “What’s so different about this project?” After all, PROs have been using some of these strategies in the past. Projects have provided examples of tools to use at the bedside. Projects have provided data both at baseline and remeasurement and recommendations for the basic CQI principles that are embedded in this project have been made.

Well, what made this project so different was the partnership and how the partnership was able to enhance some of these strategies. This partnership has been based on trust and mutual respect, a mutual respect for each other, the credibility that we each bring to the table, and trust that we’d all follow through on our assignments and see this project through to a successful conclusion.

Dr. Eagle has talked about some of the strategies. I’d like to talk about how some of these strategies were enhanced by the partnership and also some of the successes and lessons learned.

During the recruitment phase we certainly complemented each other. MPRO already has a QI network established with the hospitals in Michigan. We are well-established with the healthcare quality improvement program contacts and we know how to get through the quality improvement department doors, if you will.

But what really made a difference in the recruitment phase was the ability of the American College of Cardiology and the Greater Detroit Area Health Council to get the attention of the cardiologists. Hospitals and cardiologists were very eager to participate in this project that was being lead by their professional organizations, both local and national. Physicians pay attention to the ACC. They really value the AHA and ACC guidelines, and if this project has been sanctioned by the ACC, being led by the ACC, it certainly must be a good project.

The providers also recognized an opportunity to be involved in a very unique collaborative project with 9 hospitals from outside of their system being led again by local champions. We had hoped to get maybe 6 hospitals to participate in this project and, within two weeks, 22 had already volunteered. What I heard from the project leads at the hospital is that this participation was being driven by the cardiologists. One project lead told me that she just knew they weren’t going to participate in the project because they already had several commitments underway, and she was real surprised then when the cardiologists at her hospital said, “Oh no, we are going to participate. This is a national pilot project, it’s with the ACC, we definitely want to participate in it.”

Recruiting opinion leaders and physician champions was greatly impacted by the involvement of the ACC and the Greater Detroit Area Health Council as well. Cardiologists demonstrated ownership for the project at both the project design level and also the implementation level. There was real ownership from the local cardiologists who were members of the Southeast Forum of the Greater Detroit Area Health Council. They worked on drafting tools, reviewing the tools, they volunteered to be intervention team leaders, attend meetings and attend the grand rounds. There were also other clinicians nurse representatives from the Southeast Forum [who] also worked on the tools, drafting the tools and volunteering as intervention team members, and these clinicians—their hospitals were not participating in the project, so it really was a local community ownership for the project.

At the hospital intervention level, the local and national attention and champions also promoted the participation. We asked for physician champions when we asked for enrollment, and there was no hesitation when we asked for the physician champions. Again, I think they were responding to their professional organization, and to the credible local and national opinion leaders who were encouraging participation. I think that this was probably the most exciting aspect of the project and probably made the most significant difference in how this project was played out—and that was the involvement of the cardiologists, how they championed the project and this was noticed by those on the hospital teams.

Recently, I was doing an introductory meeting of the Saginaw hospital and one of the folks at the meeting asked me what makes this project so different. I was really pleased when, before I could answer, one of her co-workers answered and said, “I want to answer that question,” and she said, “It’s so obvious what makes this project so different is the enthusiasm of the cardiologists. They want to do this project, they’ve already committed to it, and they are very eager to participate and they’re going to help us do it.” So, again, the partnership really enhanced the recruitment of physician champions.

Even the tool kit intervention that Dr. Eagle described was again enhanced by the partnership. Many providers are already using some of these tools, many projects have already offered examples of the tools, but how did the partnership enhance the tool kit intervention? Well, it lent a great deal of credibility when we could promote these tools and tool kit by advertising the fact that they were drafted by local clinicians, they were reviewed and approved by the ACC[/AHA] Task Force—that lends tremendous credibility to the receptiveness of using these tools.

MPRO also offered the CQI principles involved in using these tools. That is—what is the process going to be; how are you going to overcome resistance because there is resistance to using new tools, to using standing orders, and there are techniques that can be used by the project champions to help overcome that resistance and also monitoring early on to see how the tools are being used. So all the partners brought something to the table in terms of enhancing this tool kit and intervention.

This enhancement by the partnership was evident at the hospital level. One project lead told me that they had been for a very long time, over a year, trying to introduce a new discharge document specifically for AMI care. What he told me was that there was always resistance—folks didn’t want to even do a pilot project because they’d have to overlap and use two discharge documents. But he said when this GAP Project came along he was shocked. He was walking down the hall one day and he heard two staff members actually talking about “Oh no, get the GAP AMI discharge document. We’re part of the GAP Project, we need to use that discharge document.” So you know, once again, I think the high profile of this project, the champion by the local cardiologists and the ACC cardiologists really impacted the receptiveness to using these tools at the bedside.

The Grand Rounds—Dr. Eagle explained the grand rounds to you, but, again, this was a strategy that was enhanced by all the three partners. As a PRO we are very used to doing face to face site visits, we’re very comfortable with that and so we brought that comfort level and the knowledge of how to go on-site and do a site visit to the team. What made the biggest difference, though in

this particular strategy, proved to be the ACC and the Greater Detroit Area Health Council cardiologists and Dr. Eagle. They were a tremendous drawing card for attendance at the site visits. It was very rewarding. Probably one of the most exciting aspects of this project was the attendance and enthusiasm at the grand rounds. For the most part, the auditoriums were filled, all the cardiologists were there, the nurse leaders were there, and it was really a big event at the hospital.

You know, even the measurement was enhanced by the partnership. MPRO and CMS provided all the Medicare data of analysis, but we know as PROs when we work with hospitals, they want to be able to measure beyond the Medicare patients. They want to measure across-the-board. Well, in this particular project, Greater Detroit Area Health Council, through an unrestricted research grant, as well as the ACC, supported us in our ability to obtain non-Medicare data. This was probably one of the major challenges of this project. To re-measure a rapid cycle project is very challenging, it's very labor intensive for the medical record departments, it was very labor intensive for MPRO as well. But it was also one of the most major successes of the project - to be able to do this free measurement very quickly—and I want to recognize Angela Blout, who is the data analyst at MPRO, who worked very hard at turning around this data so that we would have reports early on.

Because of the close scrutiny of the project both externally and internally and because of the rapid cycle nature, hospitals were advised to do some monitoring early on. We learned a great deal about the differences between the data that is provided by abstraction from an outsourced abstraction like the Center for Data Abstraction that we used for this project and how that differentiates between the self monitoring data that the hospitals use. Given that each source has its own set of rules, its own data definitions, its rules for abstractions, they're each correct within their own set of rules, but they are different from one another. The abstracted data allows us to be very consistent between hospitals, very consistent with what's being measured nationally and we're able to identify ideal patients and the rates for ideal patients. On the same hand, the self-monitoring data is very accurate. The self-monitoring data done by the hospital staff has the advantage of the local knowledge of the medical records. They know what the documentation rules or nuances are within their hospital, they can even clarify and verify documentation right there on site while they are doing the data abstraction.

So, one of the lessons learned was that in future projects we need to do a training session with the hospital staff that are going to monitor their data, so that we can get closer to having apples and apples when we are looking at the comparison between data abstraction and hospital self-reported data.

In summary, the major conclusions of this project are that providers are very eager to participate in the project, recruitment of hospitals and cardiologists and their participation in project implementation is certainly enhanced by the partnership, and when we're selecting partners for projects we should look for those who are highly respected and recognized and then nurture the partnership with mutual trust and respect. The result is probably the most rewarding aspect of the project. I feel like we made a real difference. I think we helped to improve the consistency of care. We were able to demonstrate that the performance regarding early indicators is enhanced

with the use of AMI specific standard orders. And, likewise the later discharge indicators are enhanced when we have AMI specific discharge tools.

We hope in the future to be able to share with you analysis of data comparing GAP with non-GAP hospitals and [we] will share that with you when it's available.

**Dr. Krumholz**

Thank you very much, Dr. Eagle, Ms. Montoye. Those are especially fine presentations and important information.

Overall, I think this has been a remarkable panel. The presence of leaders from the ACC, AHA, and CMS indicate a very high level of commitment of these organizations to participate together in efforts to improve the care and outcomes of patients with cardiovascular disease. We are really seeing what I consider to be an historic convergence of efforts by these powerful, influential, organizations that are directed solely for the benefit of patients, elevating the performance of the health care delivery system, utilizing the best evidence available, ensuring full dissemination and application of best practice to the bedside. We know that despite the best efforts of talented clinicians delivering some of the best care in the world, gaps in performance have been continually documented.

You are hearing today that these gaps can and will be addressed.

I would like to review some of the key points from today's presentation.

First, I want to take a moment to reflect on the success of the Michigan GAP Project. They showed today that you could put together a collaborative project—bringing together partners committed to improving care. The implementation of the program by itself was their first major success showing that it could be done.

Second, they showed that this approach could achieve results. Not only could they bring people together, get them talking, get them to work together, but they could actually achieve the results. Sure, they didn't achieve perfect performance, but definite progress was achieved — and patients benefited. And from the beginning they wanted to find an approach that worked and they were committed to finding ways to spread the word so that others could also benefit so this would be generalizable and that's what you're hearing today.

There are some fundamental components of the GAP Project that are worth noting. It contained some of the elements that appear essential to successful interventions to improve care. For example, they obtained strong administrative support at the hospitals and they worked hard to do that. The project had clear, explicit goals for the project—there was no ambiguity about what aspects of care that they were trying to improve or how they would measure their success. These shared goals were clearly understood by everyone in the project. In addition, they recruited talented clinician champions who were widely available, but they were able to activate these individuals who shepherded the project at the hospital level. They employed data feedback to inform participants about where they were starting and what they had achieved. Finally, they

employed a systems approach to improvement—using simple but effective tools to enhance performance of the clinicians.

There are a couple of other issues to highlight. The national organization played a key role. By this I mean ACC and CMS, as well as the local organizations. As you can see by now ,also with AHA here too, the overwhelming commitment is to work together for a common goal—and for these organizations to use their special national positions to facilitate efforts to improve care at the local level. In addition, PROs, by their nature focusing on these local efforts, who are repositories of great expertise around quality improvement, were key partners in this effort. And CMS has a great stake in working together with clinicians and organizations to ensure that patient care is at the highest possible level—and that this approach emphasizes the partnerships that you’ve seen here today and seeks to inspire the health care profession to continually improve. You didn’t hear anything here about punitive action. This is all about inspiring people to do their very best and then finding the ways in which that can be achieved.

Finally, much effort has been directed toward documenting gaps in performance and opportunities to improve, and while these efforts have been very important in framing our challenges, the real measure of our success in the future will be our ability [in] working together to elevate practice. Medicine in the United States is excellent. No one can disagree with that. But we can be better. We are seeking to ensure that all patients who receive care will be given the best care for them.

There is clearly much more to be done, but this work will be easier if we do it together and not only easier but will enhance our chance of success. Today you are seeing evidence of the value of these partnerships, and we are just at the beginning of what we can achieve together. We hope that many of you in the audience will be part of the future efforts.

I’d now like to open the floor up for any questions from the audience. Viewers can call or fax in questions for any of our panel members. The toll-free telephone number seen below is 1-800-953-2233. The fax number is 410-786-1424.

Following the broadcast, you may also ask panel members follow-up questions via email. Please address these questions to [PROINQUIRIES@cms.hhs.gov](mailto:PROINQUIRIES@cms.hhs.gov).

Also, questions specific to the GAP Project may be sent to [gap@acc.org](mailto:gap@acc.org).

You can start now with the questions.

I’d like to maybe just start with one for Dr. Zipes. We’ve heard a lot of interesting I think and exciting efforts have occurred today. There may be some people in the audience who are wondering how do I get involved? Where can I start? Where can I go starting now?

**Dr. Zipes:** It really is very easy for them to do that. They can contact either their local ACC chapter, local ACC Governor, they can contact the ACC directly either via telephone, via web site, they can call me personally. We want as many conduits as possible to facilitate [they’re] becoming involved in this project.

**Dr. Krumholz:** That sounds great. I think one of the important things we want from this panel today is for people to be able to take that next step and I think as you've indicated there are many ways.

**Dr. Zipes:** Absolutely, and I think Lynn would also indicate that they can contact the American Heart Association and find out about Get With The Guidelines as well.

**Dr. Krumholz:** Lynn, do you want to comment?

**Dr. Smaha:** The American Heart Association as well as ACC have spokespersons panels and we have staff that support these projects. Just like Dr. Zipes, you can call me, I'd be happy to help, or call the American Heart Association, we'd be happy to help. We need to move forward because we're all in this together trying to improve the health of people we take care of so they do better. This is a way to do it.

**Dr. Krumholz:** I think that's great. So between PROs, ACC, AHA, people can find those areas and we can come together. We do have a telephone call from Edward. Please go ahead.

**Caller:** Dr. Eagle, you presented a slide where you gave the demographic data and at the very bottom of the slide there was a difference in mortality rate between the 1999 and the 2000 group. You didn't even talk about that. Why was that?

**Dr. Eagle:** Thank you for bringing that to our attention. Indeed the mortality in the pre-GAP group was, I believe, around 12 percent and it was 8 percent post-GAP. The differences in that mortality, Edward, are being analyzed to see whether there is a significant difference, but it may simply be that there was some difference in case mix. I would love to believe that some of that effect was from the GAP implementation, but we need to do more analysis on that and the numbers will probably be too small to have a final answer.

**Dr. Krumholz:** Thank you. We have another call. Just to try to move these along also so we can give everyone a chance to get on. Deborah from Bethesda, do you have a question?

**Caller:** Yes, I do. Can you hear me?

**Dr. Krumholz:** We can hear [you] very well.

**Caller:** Great. Well, it was actually two questions. One was: are you aware of any of the grants that institutions may be able to obtain in order to get some of these efforts started in their institutions? And number two, with the CCP database, there was the availability of that data for analyzing and coming up with some conclusions and trends. Do you see the availability of that data being made available to institutions?

**Dr. Krumholz:** You're talking about the GAP data?

**Caller:** The GAP data.

**Dr. Krumholz:** Dr. Eagle or Ms. Montoye? First, she's asking about whether or not grants are available for institutions to help them get started. Let's start with that first.

**Dr. Jencks:** Okay. I think that [regarding] the question of availability of grants, I'm not so sure about grants, but the PROs are out there and they have contracts which almost specifically are to help people get started on improving cardiovascular care, particularly care for AMI, also heart failure, also stroke. So if I were looking for some help, I would go to my PRO and talk with them about the kinds of resources they [can] help you bring to bear on the problem.

**Dr. Eagle:** Can I expound on that?

**Dr. Krumholz:** Please.

**Dr. Eagle:** I think that's a very good question. Where can we get resources to help us do this kind of thing in our own hospital? Our experience has been that there is a great energy and interest in investment in all partners of this paradigm. Since the original project that we've had, we have had interest from local industry partners, you'll see the AHA is getting more and more involved in outcomes research to close the gap between science and what we do, there is now an RFP from the NIH Heart, Lung and Blood Institute for this very type of project. So I actually believe that funding is going to become increasingly available for pilot and implementation projects like this one.

**Dr. Krumholz:** Great. Anything else? Deborah, Is there anything else? Did that answer your question?

**Caller:** Yes, thank you.

**Dr. Krumholz:** We've also received a few questions by fax and I just wanted to address this one. And Cec, Kim, this is one that's really about the implementation of the GAP Project and this person is asking were these tools mandatory? You were showing some evidence that some people used the tools, some people didn't, that there was a difference in the performance. The question is: how did you, I guess, present these tools and to what extent were they a critical part that people needed to adopt or where they given a choice? I wonder if you could just give us some sense of that.

**Ms. Montoye:** Thank you. It's a good question. The tool templates were provided to all the practitioners. And if they were already using a standing order, that they weren't interested in starting from scratch with a brand new standing order, we asked that they compare their standing order to the template and make sure that all the items were addressed. There were two hospitals that don't use clinical pathways, and so they just did not use the clinical pathway for the nursing staff. All the hospitals ended up using standing orders. All the hospitals ended up using discharge documents, the AMI specific discharge document.

**Dr. Eagle:** Can I expound?

**Dr. Krumholz:** Please.

**Dr. Eagle:** We certainly did not want to come in and say “you’re mandated to use these tools.” Contrarywise, we wanted to offer a tool kit that spanned the range from admission to discharge and approached the patient, the nurse and the doctor, and encouraged their use wherever they thought it would be feasible. Furthermore, we encouraged them to modify the tools for their local look to increase acceptability in the local environment. And we saw highly variable use of the tools. Certainly the last data that I showed suggested that when the tools were used, we saw the highest level of indicators that we’ve seen and leads me to believe that broad application of across-the-board tools where we can find them acceptable is going to be very helpful.

**Dr. Krumholz:** That’s great. There’s actually another fax here. This question I think is relevant to this because of the focus on the tools, and we have a fax here from Michigan, in fact, that’s someone asking: Are the discharge sheets available to non-GAP hospitals? Actually, Dr. Zipes, this may be a question also for the ACC about the way in which these tools are now going to be available to other people who may want to take advantage of them, or anyone on the panel.

**Dr. Zipes:** Certainly, we are very excited with the results of the GAP Project that my two colleagues have presented. It appears that this is indeed a mechanism to apply guidelines in practice at point of care and it does have an impact. So as this develops we will be very eager to disseminate these tools as much as [we] can and certainly to move into other areas as well as we’ve presented. All of our goals here are to improve the level of cardiovascular care and any way that we can accomplish that goal we are going to go forward and do it extremely enthusiastically.

**Ms. Montoye:** If I could just follow up on that—and anybody who knows me knows that this is what I’m going to say—and that is that you can’t just take the tools. Please feel free to use the tools, but make them part of a quality improvement project. Talk about the process in which you are going to use these tools. Educate your staff about them and then, monitoring the use of the tools afterwards, you really need to be able to document that you’ve made a difference in using the tools and you’ve made a difference in care.

**Dr. Krumholz:** I think it’s a critically important point. Tools are powerful, but the context in which they are applied is also important.

**Dr. Eagle:** I simply wanted to expand on what Doug said, that is the templates, the standard tools that we started with, are available on the ACC’s web site so that if you want to use those as a starting point in your hospital they are available through the ACC on the Internet.

**Dr. Zipes:** I would like to underscore what you’ve just said, Cec, because just giving the tools is like putting the guidelines out and we found no body was really using the guidelines, so you can’t just hand the tools, out but you indeed must be certain that you follow through—that these tools indeed are used.

**Dr. Krumholz:** Dr. Smaha, do you just want to make a note about this?

**Dr. Smaha:** Part of our challenge is not necessarily having to worry about all the people who are asking for tools but more to build in context all of the pieces and so our approach has been to raise awareness of the guidelines because there are still people who aren't completely sure what they are, building it to a continuous quality improvement project, and with the guidelines project, with the tools available on the Internet, if you want to use the internet tools because of its bells and whistles, it's available for a relatively nominal fee.

**Dr. Krumholz:** That's great. We have another call. Monty from New York. Are you there?  
Caller: Yes, I'm here. I want to congratulate the College and CMS for this kind of project. I would like to make a comment that we have been working with the New York State Chapter of the [American] College of Cardiology for over five years, and as opinion leaders we have used them in helping go to hospitals making presentations at local meetings. And this has had a big impact. Also, utilizing Sutton's Law, we realized in the Emergency Department we could face up to the emergent need of what we called "ABC"—Aspirin, Beta Blockers and Clot Busters—and we dealt with this by dealing with the New York State Chapter of the American College of Emergency Medicine, so that I think it's important as all of you have pointed out to have opinion leaders and I think also it's important to do one thing which we found necessary—that is, it was not alright to simply say "aspirin, beta blocker, yes or no," but reason for no. This helped shaped the change in the opinion of a lot of physicians who adamantly resisted using, for example, beta blockers without a good reason, and we're doing the same thing right now with statins because of that importance and the importance of beginning that in the beginning. So, again, I congratulate you. I have no specific question, but I think this is the right way to go.

**Dr. Krumholz:** Thank you, Monty. We always appreciate calls like that. I think there is one important point you made also, which is—there is in no way a suggestion on this panel, I think, that these are the only partnerships, and as you mentioned with the Emergency Physicians, the idea is the degree to which we can find partnerships across the relevant groups is very important and thank you for mentioning that. We have a question from Alan from Minnesota. Are you there?

**Caller:** Hello, Dr. Krumholz. This is Alan Berger. I'm calling from Stratus Health, the Minnesota Peer Review Organization. My question is aimed at both Dr. Zipes and Dr. Eagle. Having collected this data, is there any current attempt to either standardize the data or to set up a system by which you will be able to collect in the future in a database? My concern is that as individual hospitals modify the tools, maybe one to two years down the line it may be harder to repeat and actually evaluate the degree of your success and, with other institutions also having similar goals, maybe there'll be an opportunity to collaborate.

**Dr. Eagle:** That's a very good question. Certainly we view this as a beginning. I think the College through it's Cardiovascular Database Committee is very interested in facilitating the development of regional if not national databases that will help all of us benchmark and find areas for opportunities to improve. Certainly, we can't lose sight of the possibility that the PRO can be a long-term partner in terms of database support. In Michigan we plan to continue to monitor the GAP hospitals and non-GAP hospitals working closely with the PRO to understand whether these early impacts waiting with time whether there is learning from the local environment as GAP gets more publicity, etc. But we certainly want to foster this idea that

continuing measurement is critical, and somehow we have to find a way locally, regionally and hopefully, nationally to maximize the possibilities here.

**Dr. Zipes:** Let me also add I think your question is an excellent one. As you may know, the College does have a national database in cardiac catheterization and that has been going on for some three plus years and now has become extremely robust with very important data that is being statistically analyzed and will provide a great deal of information in that particular area. I also agree with you that establishing databases in other areas such as this as we go forward would very probably be equally helpful in the future. Thank you for a good question.

**Dr. Krumholz:** We have just a little bit of time left, so I just want to get through just a few other quick points quickly and we do have a couple people on the line, but one fax that we got asked a question about this issue - having hospitals collect data as opposed to the central organized train[ing] groups, the so-called CDACs, the group that CMS has employed to do that - and the question is: what kind of training did they need? What did it take to get them to produce what everyone considered reliable and valid data? Why don't you just quickly address that?

**Ms. Montoye:** The abstracted data was done by the Central Data Abstraction Center through CMS. Even the non-Medicare data was done with a separate contract with them. They're very highly trained professionals, they do a lot of QI testing, and it's with a very lengthy tool that allows us to do risk adjustment. It's an entirely different type of data than what is provided by the hospitals. The hospitals were provided tools, they were provided definitions of how we get to an ideal patient, they were provided with the quality indicator calculation plans. But their source of data is different. They're monitoring their data. They're not abstracting the medical records and, quite honestly, it was one of the lessons learned through this project, and that is—we need to do some training with the hospital staff so that their data that they collect is closer aligned with the abstracted data.

**Dr. Krumholz:** Okay, so maybe something for work on with future projects, but certainly gave them a greater investment. We have a call from Joel. Are you on the line?

**Caller:** I sure am. This is for Dr. Eagle. I was wondering what the methods to improve time to reperfusion therapies were and were there some issues, why they didn't seem to work, such as conflict between angioplasty [and] lytics, were there recommended call schedules for interventionalists, etc?

**Dr. Eagle:** That's a really good question. The first thing to say is that the sample size for the reperfusion group was relatively small. Having said that, I think we found that in our kick-off grand rounds and other venues that we really underestimated the importance of bringing all of the emergency department colleagues and their leaders into this project. And probably too late in the game realized that we had not gotten their complete representation. And I view that as probably the biggest issue with those data and it's clear that if we don't do that, we're not going to be successful in that venue.

**Dr. Krumholz:** I think we have time for just one more point, if you wouldn't mind, that I wanted you to address, is the issue of the sustainability of this intervention. You presented some

outstanding information about what you were able to achieve. Any information or sense on fallback? Are these systems now embedded and do you think the performance will continue at these levels or even continue to increase? A comment or two?

**Dr. Eagle:** Sure. First of all, we are very excited about moving forward with additional GAP Projects in Michigan. Flint and Saginaw physicians, nurses, and hospitals are just now undertaking projects, and there is another larger Detroit area GAP Project planned. We are very hopeful that we can continue to work with the local PRO and the ACC to watch this over time and look at the GAP hospitals and whether there is a waning of the effect, and also whether there is any spill over to the non-GAP hospitals. So that I hope that in a year or two to have additional data that can be helpful to all of us to address the issue of sustainability.

**Dr. Krumholz:** That's great. And finally, Dr. Zipes, in terms of next steps, you've discussed these other GAP projects. When should people look for these on the horizon? Just reiterate the timeline.

**Dr. Zipes:** Absolutely. We're moving forward with these other initiatives, and hope to expand to other areas as well. As Kim indicated, this is really our first step. What they accomplished in one year was phenomenal, and now we will spread it into other areas, so stay tuned.

**Dr. Krumholz:** Meanwhile, CMS moves ahead on their efforts, as well as AHA, so I think you'll see a lot more good work. So, at this point, I want to say thank you to all of our panel members for their presentations and particularly their thoughtful responses to some good, practical questions from participants around the country.

We hope you find these discussions helpful in moving your local improvement agenda forward. You could do us a favor. Please take a moment to complete the broadcast evaluation form provided at your host site. We're looking to continuing to improve as well.

Thank you for participating in this joint presentation.