*This is an unedited transcript of this session. As such, it may contain omissions or errors due to sound quality or misinterpretation. For clarification or verification of any points in the transcript, please refer to the audio version posted at www.hsrd.research.va.gov/cyberseminars/catalog-archive.cfm or contact David Belson at belson@usc.edu.*

Moderator: Welcome ladies and gentlemen. We are going to be getting started now for our QUERI Implementation Series presentation. We are lucky enough to have joining us today Dr. David Belson. He is an adjunct professor and senior lecturer at the Epstein Department of Industrial and Systems Engineering at the University of Southern California, Viterbi School of Engineering. His research and teaching interests lie in health care process improvement, particularly improving productivity in health care and in management engineering around reduced costs, increased productivity, and teaching staff process improvement methods. Dr. Belson has helped physicians and management and has been consulting for over twenty-five years. He has held management positions at Ernst & Young, IBM, and Universal Studios. This work involved consulting with various organizations and corporations in manufacturing, media, transportation, real estate, and health care regarding operations and improvements. We are very thankful to have Dr. Belson presenting for us today, and at this time I’d like to turn it over to you Dr. Belson.

Dr. David Belson: Okay. Thanks. Good morning or good afternoon everybody, depending on where you are. I’m here in sunny Southern California and it’s a nice day. I’m very excited to present this material. It covers quite a range of items and we wanted to give you a quick survey of this material, and more details are available with information links at the end of the presentation. As just mentioned, I’ve been working in performance improvement and quality improvement for quite a few years, the last about fifteen years exclusively in health care doing research, teaching, and doing various projects. As a result of this experience and in talking with others, there’s quite a bit of material that I think you’ll find useful, particularly if you’re in the position of doing research that would benefit from some quality improvement. This seminar is going to present a number of different tools, a number of different ideas that you can use in your research or other kinds of health care-related work. Actually in any industry, but we’re particularly focused on research and how researchers get the best bang for their buck if you will, the most impact from the research that they’re doing. Performance improvement and quality improvement has a long history where many different industries, particularly health care, have developed ideas, tools, or methods, that will improve the results of research. Many of these tools, which are applicable in health care, you should consider them when planning your research.

Naturally you want to get as much out of the research as possible and the agency or agencies that are providing funding for your research want to get the most impact as well. The most benefit whether it’s a clinical improvement, an operational improvement, or a quality improvement, you want to be in a position to make sure you get the most benefit. One way to do that is to use these quality improvement tools which we’ll present here. And I know for a fact that funding agencies that are looking at your research would like to see that you’re using the appropriate tools. I’ve been working in this area and working with the VA for some time now. We had developed a handbook to provide quality methods which researchers can use to provide some direction. This year we updated the handbook, added more material, made it clearer, more focused, and also developed a tool, which will help guide you through this material. So I’m very excited about it. The presentation today is to explain the purpose of this material, what you get out of it, and why even consider it. Maybe you just think that doing the research and studies are sufficient, but there are a lot of methods, tools that you should know about. I’ll talk about this handbook as well as go through a few of the most relevant methods to give you a feel for what we’re talking about when we talk about quality improvement methods. I’ll also discuss how the material should be used, how do you make use of it in your research project. Like I said there’s a handbook now, which covers all these various methods.

Also new this year is a website which helps you find what the best method is for your particular situation. This is something I’ve been thinking about for quite some time, and I know others have thought of this problem. I often get questions from students saying, “Okay. So I learned about all these different methods. How do I know when to use what?” My bigger answer is, “It’s a bit of an art to do that.” It’s almost an intuitive kind of thing to say, “I can use Tool A or use Tool B,” but actually it’s not that exactly. It’s via some experience people have in terms of what methods fit what problem. Like with a mechanics toolbox, different tools are used on different kinds of problems or issues. And so we developed a website to help select a definite best method to fit your particular situation. What I’m going to do here is to go over a few of the more relevant methods just to give you a feel for it, as well as describe this new website, and then they’ll be a time for a Q&A at the end of the presentation. A little more about why quality improvement and quality improvement methods are important, is naturally you don’t have unlimited funds or an unlimited amount of time.

You want to get the most results from your work. That may mean being most efficient and going about your research. It may mean going about finding out what the real problem is and getting some depth into understanding the problem. These methods apply to that. That you properly understood the problems you’re dealing with. Of course you have a limited budget and your researchers or data gathers need to be used efficiently, so these methods apply to that. If you’re a researcher what you’re probably familiar with is once you’ve developed an intervention, how do you make sure that intervention has the impact that you want and that the research is used everywhere it should be used and whatever you developed remains in place, that you don’t make a temporary change and then the system reverts back to where it was before the intervention. Quality Improvement methods provide a way to make sure that you understand the problem that you efficiently get to the solution or intervention, and that the intervention is maintained after your research is complete. It’s mentioned here the approval of research is more likely if quality improvement methods are properly integrated into your research plans.

The handbook which I’ve been talking about includes the following things. It goes through about forty plus different methods. It gives you a brief description of each of these methods. We’ve listed literature sources. There’s lots and lots of literature on each of these methods. In most cases there are books on the subject and college courses on the method. Each of these methods are fairly extensive, although they are briefly described in the handbook. And then I’ve included here an example application in health care for each of these methods, and a little list of the steps generally necessary to implement the particular method. Again it’s limited. It’s concise, and so the brief material is not a full training program with these methods. It just simply gives you the idea of what tools or methods are available to you that you ought to consider. Also as I mentioned, which quality improvement method is also a challenge, and so we created a website that’s going to be at the end of your presentation to help you select the right method for your particular situation. While there are forty-five methods, they’re all useful methods and the idiosyncrasies of the specifics of your situation may mean that any of them could be applicable. But the website gives you a starting point on these methods and where to look first.

What are some examples of these methods? Some methods are used to understand the problem, to understand the situation, to understand what’s going on. One example that I’ve shown here is the Affinity Diagram. You may already be familiar with the Affinity Diagram and all of these methods. What I tried to do here in this handbook is to cover all the methods that might be applicable in a quality improvement situation. An Affinity Diagram is a simple technique where you’re trying to understand the situation, trying to understand maybe the hypothesis you want to test, or what the issues are. Then you can use quality improvement tools that involve a group of people, not just one person working along, but a group of people. It’s always a challenge to get as much as possible out of the group, all of their knowledge. Everybody knows different pieces of the whole situation likely, and so how do you collaborate and how do you extract information from them? Here’s a picture of one such exercise of the Affinity Diagram. You’re sitting in a group and each member of the group on a brainstorming, freewheeling basis, says, “I think that this is an issue. I think that’s an issue. Here’s what’s going on.” And each of these ideas are stuck with a sticky note on the wall. There are different ways you can do this. This is one easy way. Sticky notes stuck on a wall may be related information, may be cost, who’s involved. So you just stick all of the items out on the wall so everybody can see them, and then you group them into similar issues, similar items, maybe similarity by when they apply or where they apply, or of the kind of problem that it is. So by grouping them you start to see what the key issues are, where the important aspects of the situation exists. It’s a simple idea. Many of these are fairly simple. Although when you think about it they can be more complex and more of a challenge depending on the situation.

Here’s another kind of visual method where we’re trying to understand the causes of a problem. Maybe we’ve identified the key problem, but there are many factors that apply to it. The diagram that describes this kind of looks like a fish. At the head of the fish is the main problem, and then the branches are lists of things that contribute to that problem, maybe there are other problems that add to this overall problem. It can be a hierarchy where there are problems that deal with problems that cause problems. A diagram such as this helps to organize the information. You can add aspects to it like I’m showing you with color of what the priority problems are, what different kinds of problems there are. So you can use this diagram as a tool for a group, and it works well. I’ve used it in many cases. Recently, I used it in a radiology department where we knew we had problems with certain types of diagnostic imaging and we knew that there were a number of possible things that could be causing it, whether it’s hardware, personnel, procedures, economics. So everybody had different ideas of what the problems were and the relationship of the problems by doing one of these diagrams to help lay out what’s going on, and began our thinking about how we get to a solution of the problem. It’s another visual, collaborate kind of tool.

Perhaps one of the most important tools in the quality improvement area is the idea of a Kaizan. Again with each of these methods, I’m just kind of giving you the basic topic. There is a lot of material, a lot of literature, and a lot of training programs with each of these. A Kaizan is a group organized to make a particular change. The idea here is to get into the group all the different types of individuals involved to understand the problem or maybe a source of the solution. The idea also is to get involved people who are hands-on; they directly provide care or whatever. It’s not a theoretical thing or a management thing, but a team that’s focused on making a change. A key element is that it’s not an open-ended thing. It’s planned for a reasonable amount of time, whatever reasonable happens to be. It could be a few hours or I’ve done some where it was a week or more of a fairly large group of people. In the handbook many of the methods fall under the label of a lean method and I’ll talk a little bit about that in a minute, but a Kaizan group can be very effective. I’ve used it recently for example where we wanted to prove something related to nursing notes. I’ve used it in situations where we’re trying to reduce readmission rates. Again depending on the problem, depending on the situation, the effort may be brief. The nursing notes only took a few hours. The readmission rates went on for a couple of weeklong meetings with fifteen or twenty people. So each method can be a small effort or it can be a big effort, depending on the particular situation and depending on what in particular is needed. Before we get too far we wanted to get a little feel for the participants. Can we initiate that poll right now?

Moderator: Not a problem. We have that poll up right now and it looks like our attendees are taking the opportunity to respond. The question is, “What is your primary role in VA?” Please select one option: clinician, researcher, student, trainee, or fellow, manager or policy-maker, or other. And at the end of this when we pop up our feedback survey, you will be able to specify your role further. So for those of you checking “other” we’ll give you the opportunity to respond more specifically. It looks like almost eighty percent of our audience has voted. That’s a great response rate. I’ll just run through the answers real quick. We have about eight percent clinician, fifty-five percent researcher, nine percent student, trainee, or fellow, seven percent manager or policy-maker, and almost twenty-five percent identifying as other. Thank you for those responses. David, give me one second and I’ll turn it back to you. There you go.

Dr. David Belson: Okay. You can see my screen?

Moderator: Correct.

Dr. David Belson: Okay. So continuing on, as I mentioned at the start of the hour, besides having a handbook describing these various methods, we’ve set up a website. It’s a VA website, but accessible outside of the VA I believe, to help you identify what particular methods would be best for your particular situation. A link to this is at the end of the presentation. This is what the screen looks like now. It’s a bit of a draft and it may change in the future. We’re still doing some web programming on the website. But the idea here is to provide some intelligence. I think this is a new thing: I am not aware of any other quality improvement or performance improvement service that has this kind of assistance for you to help figure out which methods apply. What the website does is it gives you some choices that describe your particular situation, what stage is the research in, where is your research being applied, the data involved, what kind of problems you’re working with. You can check a few or many of these attributes describing your particular situation. And then when you hit the “select” button the website provides you with results. This is what the screen looks like. At the top are the five most relevant methods to your particular situation, your particular research. Any of the methods in the handbook could be applicable, but these relevant methods are likely a good place to start out. There are also some other methods like the Kaizan I was just talking about that are often applicable to pretty much everything. We’ve listed those four methods separately, but the upper part would describe whatever predictor methods are relevant to you. And I think this is something new that has not been available previously. The entire handbook is available online as well along with the description of all of the methods.

On the prior screen where it pops up the most relevant methods, you can click onto each of those and see a full description of the method. You can print it. Then that page will show you the description of the method, literature sources on the method, where you can go for more material on that particular method, as well as an example of how the methods apply in quality improvement research. An example is discussed there along with the basic steps of executing the method. You can do that on each of these that pop up. It’s kind of an intelligent advisor if you will on quality improvement methods. Links to all of this is available. If some of you try it out, let me know if it’s effective. I’m very curious to see how this works. Although there will be some editing of the website in the future, the basic elements are all there. I hope it’s helpful in terms of figuring out just what you need to do.

I’d like to discuss some other methods. This is one that I find particularly useful, particularly in the early stages of new research or in developing some new intervention. It’s a tool that’s useful for understanding how things work currently, as well as developing a description of what you want to have happen in the future. This is called Process Mapping. Sometimes they’re called by other names, Workflow Diagram, Workflow Map. But the basic idea is pretty evident just looking at it you can see what it’s doing. For this particular situation, there is a sequence of things. It’s got a beginning and an end. There are some standardized symbols that are used. In this particular case it’s the simple clinic visits where at the start the patient comes in and registers. At the end the provider examines the patient and then the patient leaves. The symbols are really up to you. It can be a very informal kind of a diagram with pencil and paper, or it can be neat and orderly like this one. There’s a lot of software out there for drawing these kinds of process maps. Microsoft Visio is probably the most popular one, but you can do this with PowerPoint and a variety of different kinds of flow-charting software. The standard symbols are ovals at the beginning and at the end. Rectangles describe a process or a task being done. The diamond shape shows a decision. Probably in all of these quality improvement methods there’s a simple, easy, quick way of doing this, which is often sufficient for any particular situation. But there’s plenty of depth where there’s probably twenty or more different symbols that people use in process maps.

Process maps can be relatively tiny like this one or it can be quite elaborate. I was talking to a student last week who is working at a hospital developing a process map for a particular procedure. He said he’s up to now nineteen pages of process maps just to describe one particular procedure. So they can be quite detailed, quite formal, or the opposite. But the point of this is is that it gives one a clear description of the process, practice, procedure, or whatever it is that you need to describe. It provides you the opportunity to think clearly to what’s going on. It’s also useful to share with other people. We all look at the same diagram and different people have different knowledge about a particular situation. They can point out where you have it right and where you have it wrong. I’ve used in a lot of cases where I do a map and take it to the department. I did one recently where I did a process map for a pharmacy. I took it back to the pharmacy and said, “Is this how things work?” They said, “No, it’s not right here. No, it’s not right there.” It’s a good communication tool, as are many of these methods. Also it can be used in an analytical way to evaluate what’s going on. In many cases process maps are used to highlight where problems are. The diagrams can get quite elaborate with adding information about time, information about problems, adding cost information. They can be more in terms of the physical layout. There is a variety of ways to do process maps, again with a lot of literature doing these things.

There is another simple tool that’s also graphic in nature where we wanted to understand the movement of in this case its staff, but it could be movement of materials. This is a basic layout. They look all different ways, but this is one example. This is a physical layout of space and we observed a nurse or a staff member and traced with a pencil all of their movements across over perhaps an hour without picking up the pencil. It’s a continuous line, showing where this person walked over a time period. What it shows is where all of the movement is occuring. It’s to understand what’s going on and to record it. It’s also a way to analyze what’s going, where there’s a problem. I did a project a couple of years ago for the VA where we did a steady Spaghetti Diagram of the radiology registration area that was experiencing a number of problems. By doing a Spaghetti Diagram, we could see where a lot of movement was occuring and perhaps unnecessary movement. In that particular case there were two filing cabinets on opposite sides of the room and staff was constantly walking back and forth between these two filing cabinets. And by moving them closer together it had quite impact on the productivity of the department. It reduced the waiting time by making some movement. It made the whole operation much more effective than it was previously. This is a simple method. It’s kind of obvious how it works. It’s a useful tool. It can be used for communications, “This is where people are walking all of the time.” It’s a way to identify perhaps a wasteful situation with room for improvement. Also if you’ve made an intervention and you say, “It’s going to change to a new kind of flow,” you can use this to observe the operation after the intervention occurred to see what the impact has been.

Here is another graphic tool. We’re looking at the issues of productivity. Maybe this is for describing a new situation after an intervention has occurred, a new procedure that wasn’t there previously, or an existing one. The basic way this works is that it’s a rectangular matrix where down on the left are different staff member positions. Across the top are columns of different tasks that people need to do such as consent, scheduling, paperwork, or clinical procedures. And then the matrix is filled out with an “x” in this case, saying this person does this and another person does that. You can see who is doing what. It can be used to analyze the situation, look for duplication where two people are doing the same thing. I can do that in a simple way. I’ve done it where we were looking at pre-op in surgery. I did a Responsibility Matrix and suddenly discovered a lot of people were doing duplicate tasks. You can also modify any of these methods to fit your particular situation. Maybe instead of just checking an “x” mark of the needing of a particular position in a particular task, you could identify who is the lead or who is the most responsible person, who is in a support position. So this kind of thing is useful when you’ve got a group of people. Of course in health care it’s often a group of people involved in a particular activity and it identifies who is doing what. There may be some improvement opportunities or maybe planning out how we’re going to change the assignments, change the duties of people. A Responsibility Matrix is a handy thing, both in the beginning and later into the quality improvement effort.

Some of the quality improvement methods are more quantitative, more numerical. The one that’s often used is the Pareto Chart. The guy that developed it is named Pareto. Where this is often used is counting out the frequency of something such as problems or errors such as in this example here. We’ve listed a number of different possible problems and over a time period, perhaps a month or a year, the frequency in which each of them occurs. I’ve described this in the handbook; it’s kind of rules of thumb about when to use this method and how to go about it. People have found that maybe it’s no more than twenty different categories are useful. You then count up how much each category or type or problem or error occurs and then plot this out on a bar chart such as it is done here, sorting it so that the most frequent ones are on the left. Then you can see, “Oh, these three constitute a big chunk of all of the errors that occur.” Maybe you could do this without a graft, but it’s certainly highlighted in this graphical form. You can see that there are three problems that is the bulk of all of the problems you’ve been able to identify. That’s often the case. While there may be twenty possible errors, usually the 80/20 rule where a big chunk of occurrences are caused of a certain type. So you see where we should focus our efforts, of where the problems are occuring. You can see this kind of parallels other methods that I’ve already talked about here. I talked about the Fishbone Diagram, which shows the relationship between problems. This shows the frequency or the relative importance of problems or errors. The Pareto Chart could be used for a number of different categorization where you want to identify where the focus is, where the more frequent things are occuring. It’s not terribly quantitative. It’s largely visual, but does require some data.

Another quality improvement tool that’s a little bit more complex is the idea of Simulation Models of creating a discrete event simulation model, a computer program that replicates a particular activity. This is generally done with specialized software. There are a lot of different computer programs available for simulating, for modeling an activity. You can do simulations of very simple tasks or simulations of very large and complex system. There have been many simulations done of various elements of the hospital. There have been simulations of particular problems in surgery and in clinics. By creating this simulation, what we’ve done with the computer program is to replicate what’s going on in the real world, the natural practice. By having this we have a very powerful tool that we can use to understand what’s going on, as well as try out changes to the extent the simulation is accurate of the real situation. We can make changes and test alternatives to see what happens without actually having to change the actual operation itself. I’ve done a number of these. I did one not long ago in the GI Colonoscopy Clinic where we simulated the flow of patients and staff and equipment during the course of the day. And then we tried out different changes to the clinic to see what improved the operation of the clinic in terms of the wait for the patients or the utilization of staff. So we tried out different alternatives to see which one would seem to have the most benefit, what intervention would make things better. Of course you can simulate all sorts of different things, propagation of a disease or a mechanical thing or a flow of staff or patients. Like I said this is generally done with specialized software. Some of it has become quite user friendly, graphic kind of programming. There are many software products available for Simulation Modeling in health care situations. So by creating these simulations it’s a powerful tool to try out changes without having the risks or the costs of disrupting current operations. It’s just another method that’s discussed in the handbook.

I’m not going to present all of the different methods. There are many of them. Here are some others: Scatter Diagrams, SIPOC, which is a way of categorizing a particular situation. Failure Mode and Effects Analysis is a tool to identify and understand the impact of problems or failures. I should mention also for example in the Failure Mode and Effects Analysis that many of these tools come from other industries. The Failure Mode and Effects Analysis began in the Defense Industry, while the Lean Method came from the Automobile Industry. But these are applicable certainly to health care and in some cases these methods are probably used more in health care than they are used in industry from which they were originally developed. The Theory of Constraints is the idea of looking at bottlenecks. The Maturity Mode is understanding the degree to which the organization, the hospital or the clinic, is using these methods and using them effectively. I can’t go through this topic without mentioning Lean. Lean I see as really a kind of collection of different methods that are also covered in the handbook. It was initially begun at the Toyota Motor Company. Sometimes this method is referred to as the Toyota Production System. It sounds a little bit weird in health care, because we’re obviously not an automobile company. But it has been adopted by probably at this point most hospital systems, including the VA.

Lean includes a number of different methods. It focuses on certain aspects of quality improvement. Most all the methods that constitute a Lean, as well as Lean itself, are described in the handbook. Some of the key elements of the Lean, or Toyota method, include the idea of Waste and the fact that many tasks are not necessarily required or unnecessary. In a significant amount of health care there are parts of it that include Waste of activities or a use of resources that can be eliminated without harming the quality of the treatment or whatever the procedure is. So the idea of Waste and how to eliminate it is important in the Lean method. Toyota comes from Japan, so it uses often Japanese terminology for a particular method, a Japanese label. Some health care organizations use the Japanese term to describe what it is that they’re doing, the method. Others have substituted English equivalent for that particular method. The Gemba comes from Toyota. It’s the idea of when you’re doing quality improvement type work, be sure that you are there. You are on the scene. You are not doing this in theory, but are doing it on site and directly involved. Kaizen I’ve already mentioned. Overproduction is a type of Waste where more is done than necessary. Value Stream Mapping is the idea of a Process Map which adds information specifically related to Waste or Value into the Process Map. This is also described in the handbook.

A couple of other useful methods, the A-3 is the idea that we will summarize an improvement effort on a single page. A-3 comes from the type of paper that was initially used, the size of paper initially used for these documents. But many health care organizations have a standard format that summarizes all of the things that are going on, the objective, who is involved, status. So the A-3 Form summarizes a quality improvement effort and it’s particularly effective I think when it’s shared throughout the organization by making copies of it, posting it on the wall. I was at a hospital the other day where they were doing a particular quality improvement effort. They had multiple A-3 Forms. I saw it in the ICU. I saw it in Surgery. I saw it all over the hospital; everybody was looking at the same page. So it’s a way of sharing information, sharing status and making clear what the effort is for. Another idea that’s important to quality improvement is the PDSA. Again I know many health care organizations are familiar with the PDSA, but some aren’t. This is the idea that an implementation of a change, an intervention or another type of change, is not a one-time thing. It’s often a cycle. It’s usually best done as an iterative kind of thing where you make a change, but not necessarily make as fully as it could be, perhaps it’s for a limited number of patients or a particular type of patient. And then after that change analyzing, studying what the results were, revising it, implementing it in maybe a larger group and doing the cycle multiple times until you’ve perfected the change that you want to do. Over time you want to implement it throughout wherever it applies. So PDSA is a basic approach and probably applicable to many, if not most, research projects where an intervention is being developed.

Another tool is the idea of balancing workloads. It also comes from Toyota and Lean with the idea that we want to not overly burden one group of staff and underburden another. By leveling out the workload and doing some calculations, we’re more likely to produce a smooth and continuous flow without delay. And also probably reduce the staff required to do whatever is being done. Another method often included in the description of Lean methods is the idea of Standard Work. While this is common in health care, it’s not applied everywhere it should be. The idea here is that whatever the procedure is, it needs to be written down clear and explicit. Many health care organizations have a standard form they use for describing Standard Work. It’s written down and it’s clear. It can be used for training purposes where some new person has to do it. It’s there and it’s written down. Without that probably almost any change is not complete unless the Standard Work component is included. At this point we have another poll question. Do you want to run this?

Moderator: We have the poll question up. If our attendees could please expand on what type of research experience you have that would be much appreciated. It looks like the responses are coming in so we’ll give people some time to fill that out and we will review the responses in just a moment. It looks like we’ve had over half of the people vote, just about two-thirds. So we’ll wait until the answers start to stream off. The results are that about thirty-six percent have collaborated on research. Twenty-seven percent have conducted research themselves. Four percent have applied for research funding. Twenty-eight percent have led a funded research grant. Five percent have not done research. Back to you.

Dr. David Belson: Okay. So I want to describe some more methods and give you a highlight of things you might want to think about. Six Sigma is a broad set of methods. It focuses more on quantitative things, on data, in making sure that whatever the change is that it’s done in a consistent standardized way. It has a number of sub-methods if you will, to track a change such as a control chart as shown here where we’re tracking some particular measurement and to make sure that it’s within the limits that we want it to function. This is described in more detail and there are a number of different tools that add up to the Six Sigma approach. 5-S is another method that’s a part of the Lean set of methodologies. The idea here is that neatness is something that people want to strive for. It has a neat, orderly workspace. Any area in health care is more likely to be of good quality if it’s neat and organized. 5-S refers to different aspects of neatness of clean and clear organization, and the 5-S literature includes a number of detail tools to make sure that we’ve applied the 5-S method. You’re probably familiar with the Project Management method. It’s a number of different tools to focus on making sure you get a project done in the right amount of time, the difficult job of managing a project, managing the time, managing the results, managing the costs of work and figuring out what we need to do to make sure that we can see it on all these different dimensions. Project Management is a broad topic and is highlighted in the handbook.

There are a number of other methods that fall into the area of quality improvement that are described. I’ve talked about Six Sigma, but setting up goals that are explicit called SMART goals, are quantitative and have a time element that to be done in a certain point in time. Too often projects don’t have the necessary clear, explicit goals. And without that you can never be sure whether you accomplish what you set out to accomplish. I’ve listed some others here with Change Management, Checklists, and Cost Effectiveness. They are all discussed in the handbook. I wanted to also mention that there are also a lot of other sources that are available for quality improvement methods. There are a number of organizations like the VA, AHRQ, which is a government research institute for health care improvements, and others provide detailed literature, training, and certification related to quality improvement. Certainly there are plenty of consultants and people available to assist in quality improvement areas. There are various websites that provide more material on quality improvement such as IHI and AHRQ and others. Colleges and universities have programs on quality improvement and have performance improvement degree programs even. So those are all available to add to this material. Finally again I wanted to point out that we have a new website where the handbook is available. The first link here is a link to the selection tool that I described earlier that helps you to identify which of these methods are more likely to apply to your particular situation. The handbook is available at the second link on this page, which gives you the full handbook and you can print it if you wish. Plus there are additional information examples at that third website. I hope that this material will be helpful to you, at least as a starting point of using quality improvement methods in research. I wanted to leave a little bit of time at the end for questions. There is a link there to a website that I have. I’m doing for example a course on Advanced Lean Six Sigma training and other resources as well as an e-mail if you need to reach me. Are there any questions at this time?

Moderator: Thank you very much. Yes, we do have some questions pending. David, can you leave your screen up just so we have that information up there? I forgot to mention at the beginning of the session for attendees to submit questions or comments for David, to please use the question section that is located on that dashboard on the right hand side of your screen. Just look for the word “question.” If there’s a plus sign next to it, click that plus sign to expand it and then you’ll see where you can write in and submit your question. The first one we have pending is, “If we were working on an intervention and wanted help or guidance through some of these methods, would local VA Systems Redesign be a good resource to reach out to?”

Dr. David Belson: Yes. It’s coming up actually in a project that I’m currently involved in. I’m not a VA employee, so I’m not necessarily the best person to speak on this issue. But as I understand it the larger VA sites have Systems Redesign people there presumably familiar with the methods that I’ve described here. I’m pretty sure they are. Also Quality Improvement people or Systems Redesign People are available. Again not speaking as a VA person, there’s also I believe four VA VERC groups. Four of them are around the country I believe or five that consist almost entirely of people familiar with these methods that can provide help. So I hope that answers your question.

Moderator: Thank you for that reply. We do have several people who have written in asking if they can get a copy of the slides. Yes, we do have those available. They are in the reminder e-mail that you received four hours ago. Scroll down and there’s a hyperlink that leads to them. Also you will receive a follow-up e-mail two days from now with the link leading to the recording and to also a copy of the handouts. We do have a couple of people that have written in saying, “Thank you. This is very helpful. I look forward to viewing the handout in its entirety.” We’re just waiting for any more questions that people would like to send in. As I mentioned we have recorded this and we will be sending out a link to the recording, so I do highly encourage you to pass it along to any colleagues who you know are interested in utilizing these resources. David, do you have any more comments while we wait?

Dr. David Belson: Yeah. There was one thing that I wanted to make sure of. It’s a challenge, at least it was for me, to decide just how detailed and analytical and specific to be in this presentation. I expect some people are already familiar with these methods and I hope it hasn’t been too simplistic in my presentation. But on the other hand I also wanted to make it clear that many of these methods if you dive deeply into them, there is quite a bit of material and useful help that they can provide. This again is a fairly high-level, simplified overview of Quality Improvement Methods. I encourage you to go to some of those sources that I referenced for more detailed-use of them, and to also to call on Systems Redesign people in the VA. It’s a part of the VA, as those people are certainly familiar with these methods.

Moderator: Thank you. We do have a few more questions. First David we’re getting the request for the link to the handouts. Can you back up one slide please, so that people can have the opportunity to look at that again?

Dr. David Belson: I believe that these are the correct links, but as I mentioned there is still some editing being done on these websites. I believe these will stay as the links to these. If anything changes, I guess there’s probably some way of getting that information out. But these are the basic links. The first link up there in red is the link to the tool.

Moderator: Yes and that link is current. I just checked it myself. So I can confirm that the top one is correct.

Dr. David Belson: While I’m thinking about it, I have my e-mail on there and this website has just been implemented within the last few days. I wouldn’t mind hearing from people who use this to give us some feedback as you’ll be among the first users of this particular tool.

Moderator: Thank you. That’s actually a pretty good idea. Can you talk about engaging stakeholders and best practices to do so?

Dr. David Belson: Yeah, engaging stakeholders. As I said I have been doing this work for about fifteen years in health care. Often I find clinical people are sometimes very anxious to proceed with whatever the intervention might be. I’m involved in one large VA project currently along those lines. It’s a challenge. People want to make the change. They want to do the clinical research, and so I think it takes a bit of a push. Hopefully the Project Leader/Management can point out that it’s important to get the most bang for the buck to make the change that’s most effective, to explain to people that these tools are not any kind of secret science or overly complex. They are practical things. They work. It’s hard to say that there’s any particular carrot that makes these things get used, other than a push by leadership which is important. Also, I believe fundamentally that people want to do as good of a job as possible. They want to be effective. They don’t want to produce waste. They want to produce help for their patients, so all of those methods kind of work to that. I can say that over the time I’ve been doing this, when I first started out a lot of these methods, the whole idea of quality improvement, lean and so on, was fairly uncommon. It’s become quite common. There has certainly been constant news about how extensive health care is, about how much waste occurs in health care. Everyone knows it is an important issue. And so by giving people some tools that they can use and that are effective and now become commonplace, I would guess that probably every large health care system now makes use of lean and quality improvement tools, where a decade ago they didn’t.

Moderator: Thank you for that reply. Let’s see if we have any pending questions at the time. That’s looks about it for now. Let me know if you have any more concluding comments or we can just skip along to the feedback survey.

Dr. David Belson: No, that’s it.

Moderator: Excellent. Well we really appreciate you presenting for us, actually given that this was sort of a favor and you’re not a full-time VA employee. But we really appreciate your expertise. Obviously we appreciate our attendees for joining us as well. I’m going to ask our attendees to hold tight for just one second. I’m about to put up our feedback survey and it is your feedback that helps guide which sessions we have presented.