Minutes
Initiation Work Group, HSCRC
Wednesday, May 24, 2006
8:30am-10:30 am
Room 100, 4160 Patterson Avenue
Baltimore, MD 21215

IWG Members Present: Dr. Trudy Hall, Chair and HSCRC Commissioner; Ms. Barbara Epke, VP, Lifebridge Health; Dr. Beverly Collins, CareFirst BCBS; Dr. Charles Reuland, Johns Hopkins Medicine; Dr. Maulik Joshi, Delmarva Foundation; Mr. Joseph Smith, MedStar; Dr. Vahé Kazandjian, Dr. Nikolas Matthes, Mr. Frank Pipesh, and Ms. Karol Wicker, Center for Performance Sciences; Dr. Grant Ritter, Brandeis University; HSCRC: Mr. Robert Murray, Mr. Steve Ports and Ms. Marva West Tan. **On conference call**: Ms. Renee Webster, OHCQ; Ms. Mamantha Pancholi for Ms. Marybeth Farquhar, AHRQ; and Interested Parties: Mr. David Idala, UMBC; Mr. Gerald Macks, MedStar; **Interested Parties Present**: Mr. Don Hillier, former Commission Chairman, Ms. Traci Phillips, MHA; Ms. Sylvia Daniels, University of Maryland Medical Center; Ms. Kristin Geissler, Mercy Medical Center; Mr. Rodney Taylor and Ms. Carol Christmyer, MHCC; Mr. Larry Ginsburg, 1199 Service Employees International Union.
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1. Welcome and Approval of Minutes- Ms. Tan welcomed the Work Group and attendees on the audio conference. The minutes from the March 27, 2006 meeting were approved as distributed. Ms. Tan introduced Dr. Kazandjian to update the IWG on project status.

2. Status of Project: Data Acquisition and Planning for Pilot – Dr. Kazandjian noted that aggregate, case or disease-level and patient-level data are being considered for the pilot. He explained that the goal of data acquisition is to secure data from available sources without additional work on the part of the hospitals. To a large extent, there are data already available for the measures selected for the Alpha Pilot. The Maryland Health Care Commission (MHCC), via its vendor, the Delmarva Foundation, has access to data on most of the measures from the Center for Medicare and Medicaid Services (CMS) data warehouse. The Center for Performance Sciences (CPS), along with HSCRC and the Delmarva Foundation, has been exploring data sharing with MHCC. Dr. Kazandjian noted that one option is to proceed with analysis and statistical testing of available aggregate data while access to patient-level data is pursued with CMS. It may take some time to go through the CMS process.

   Dr. Kazandjian noted that another option might be to explore obtaining access to data obtained via the Quality Indicator Project (QIP), a data vendor for the majority of Maryland hospitals for required JCAHO and CMS reporting of Core Measures. Dr. Kazandjian proposed that permission be sought from the five hospitals represented on the IWG to use their QIP data for pilot testing while waiting for the request to MHCC for the data from the CMS warehouse to be processed. The data from the CMS warehouse would still be needed as it includes all Maryland hospitals but use of the QIP data would permit data analysis and statistical testing to begin. Ms. Epke thought that proposal was a good stop-gap measure but requested more information on how the pilot hospitals were selected and also noted that she had some questions on the indicators. A question was raised about why patient-level data were needed. Dr. Kazandjian replied that a small number of hospitals had been suggested all along for the feasibility portion of the Alpha pilot; and that it might be easier at this point just to approach the hospitals represented by the members of the IWG as they are already familiar with the project. There is also a mix of large, medium-sized and small hospitals represented. Other hospitals might be added if they are interested. Ms. Epke supported this proposal but asked if some grouping or prototype was being proposed. Dr. Kazandjian noted

that Dr. Ritter could address whether groupings would be needed for the feasibility part of the pilot. Dr. Kazandjian noted that since there seemed to be agreement, he would seek official permission from the hospitals for use of the QIP data. (Subsequent to the meeting and following discussion with representatives of the Maryland Hospital Association (MHA), letters were sent to all Maryland hospitals that participate in the QIP to request permission to use their QIP data in the feasibility study.)

3. Role of Statistical Analysis in the Quality Initiative- Dr. Kazandjian introduced Dr. Grant Ritter to discuss the role of statistical analyses in the Quality Initiative. Dr. Ritter noted that statistics could be used in two main ways: to test the internal consistency within a domain (as heart attack measures), or to combine domain measures into one composite quality score for the hospital. He noted the two main statistical tools for doing this were Cronbach's alpha and Principal Component or Factor Analysis (PCA). (Please refer to attachment for content of the presentation.) To explain PCA, Dr. Ritter used the example of a data cloud of all of the data points in the shape of a four dimensional Goodyear Blimp.

   Ms. Epke asked how could Cronbach's alpha be of assistance in evaluating a component of a measure set that might be considered "softer" or of less weight. Dr. Ritter noted that would part of missing variable analysis. Cronbach's alpha would provide some statistical evidence but the IWG would still have to make decisions on whether to keep that "softer" measure in the calculation of the composite score. Dr. Ritter gave the example of how new SAT questions are evaluated. He noted that 10% of the questions at any time are experimental questions and are not counted. Consistency between student performance on the experimental questions and existing standard questions is compared. If performance with the experimental questions is at odds with performance on the standard questions, then the new question may not be added to the standard set. The IWG may have to make similar decisions about whether to keep certain indicators as part of the pilot set of measures. Dr. Kazandjian noted that there may be other clinical or public health reasons to keep certain indicators even if there is not good consistency; this will be an IWG decision. Dr. Ritter noted that patient-level data are needed to complete the Cronbach's alpha or missing variable analysis.

   There was a question whether a patient's data would be excluded for the entire measure set if the patient were excluded from one component of the measure, such as receiving beta blockers. That is, would the "n" for the various indicators within a measure be different. Dr. Ritter and Dr. Matthes discussed the options, which are excluding the entire set, inputing the missing data item or pair-wise analysis, and noted that this analysis is another reason why patient-level data are needed. Dr. Ritter said that his conservative approach would be to exclude that patient data set that had an excluded component.

   Following Dr. Ritter's discussion of PCA, there was a question about what did the four Eigenvalue scores represent on page 12 of the handout. Dr. Ritter noted that the first score represented the main axis of the composite score, which retains about 50% of the original data; the other Eigenvalues represent secondary axes. For the Quality Initiative, we are likely going to be interested only in the primary axis.

   Another question noted that although Dr. Ritter's example contained data from 372 hospitals, there will be data from only 50 hospitals or less in the Quality Initiative. What will be the impact of this smaller sample? Dr. Ritter noted that he would expect the Eigenvalue to go down to around 1.7 or so but still be usable. Others asked whether supplementing the sample with additional years, or even adding data from hospitals from other States would improve the Eigenvalue? Dr. Ritter noted that the latter was an interesting idea.

Dr. Reuland asked whether a statistical difference between the high and low scores on the composite measure would be clinically relevant? Dr. Ritter noted that this was beyond his scope of expertise and would be a decision of others. One comment was that there would be a great deal of interest in the clinical relevance of difference in scores when reimbursement is linked to scores. Ms. Epke queried whether relative scores or attaining and maintaining preestablished standards would be the issue. Dr. Hall noted that the weights of individual measures were critical. Dr. Ritter noted that the idea of including in the data analysis a phony or pseudo hospital that met the standards was interesting in order to see where this hospital would lie on the quality score.

Another question noted that the pilot measures contain sets from medical and surgical domains: how will this be reconciled? Dr. Ritter noted that this is what PCA is designed to do. There was a question whether there would be one composite score for reimbursement or a composite score from each domain. Mr. Murray said this is not predetermined. Dr. Matthes explained that the process which CPS has been exploring of addressing different domains of quality and considering the clinical and statistical relevance is of greater sophistication than many of the composite scoring methods noted on other public Web sites. Ms. Epke agreed and noted that there is a difference in scoring for public reporting only and the accuracy and equity needed for the HSCRC project.

Dr. Kazandjian concluded this presentation by noting that the issues were complex and the project staff is well aware that decisions will be made not only on a statistical basis but also including clinical, social and other factors from other expert input. He noted that statistical analyses could begin using QIP data and updates will be brought to the group about findings when various measures from the pilot set are used or excluded. In response to a question whether data from five hospitals would be enough, Dr. Ritter noted that it would be enough for a feasibility analysis. Mr. Murray asked if anyone else was doing this type of composite measure analysis. Dr. Ritter said that there were other projects but he did not have the detail with him. He further noted that some groups are using percentiles although he did not think this was an elegant solution. He emphasized that one can not just add up scores from various domains and have a statistically supportable model.

Ms. Epke asked if peer groupings of hospitals by size or other characteristics were valuable. Dr. Ritter responded that any stratification or peer grouping would take place after the composite score was created. There is a trade-off in use of peer groups between uniformity within the group and too few hospitals within a group. Enlarging the sample within a group, such as adding rural hospitals from around the country to Maryland rural hospitals, could be tried. If the findings for the rural group were very similar to the findings for all hospitals, then peer grouping may not be useful. Dr. Kazandjian also pointed out that if the measures selected are deemed standards or measures of quality, then there should not be a different level of quality or standard of care for different hospitals and peer grouping may not matter from a policy perspective. The selection of terminology, whether it be "measuring performance" or "measuring quality," will be important. Ms. Epke noted that hospitals may not be different but patients are different. Dr. Kazandjian noted that hospitals are what are being measured in this case.

There was another question about the pilot and the length of the pilot. Dr. Kazandjian noted that the pilot is in two parts. The first part is the feasibility analysis with statistical testing and creation of the model using existing data from a few hospitals. The second part of the pilot is to test the model on the data from all Maryland hospitals. All of these data are historical data and most already exist as noted earlier. Dr. Kazandjian did not have the time line with him but the length of both parts will take about one year. Mr. Murray suggested that Dr. Kazandjian get back to the group about the timetable for all of these activities.

4. Other Business - Mr. Ports noted that there is agreement about the need for a Hospital Forum to orient representatives from all Maryland hospitals to the Quality-based Reimbursement Initiative and the Alpha Pilot. The Maryland Hospital Association has offered to help with logistical arrangements. Mr. Ports noted that he wanted to seek IWG input into the agenda, the types of personnel to invite and the length of the program. Mr. Murray suggested that a draft template be sent out for response and comment. Ms Epke noted that hospital representatives are most interested in three items: 1.) How much extra work will be engendered by the Initiative. 2.) What measures will be used, and 3.) Details on the pilot itself. She noted that hospitals feel more comfortable about the first point as they learn that most of the needed data already exists as part of the CMS data warehouse. Ms. Tan thanked Ms. Traci Phillips from MHA for her assistance in helping to plan the Hospital Forum. Dr. Kazandjian noted that more work behind the scenes was needed before selecting a date for the Forum. Ms. Tan said that she had a rough draft of an agenda and template that she would email for comment.

5. Adjournment- Dr. Hall thanked the whole group for their participation and effort. The next meeting date will be announced once issues related to data access are clarified. Dr. Hall adjourned the meeting.