BACKGROUND OF PHONE INTERVIEWS

Under contract from the Agency for Healthcare Research and Quality (AHRQ), NAHDO was tasked with providing technical assistance to Healthcare Cost and Utilization Project (HCUP) Partners on issues related to the collection and use of outpatient data, with the overall goal of helping the HCUP Partners to develop and improve the collection and quality of statewide outpatient data. Specifically, the goals of the technical assistance activities were to:

- 1) identify obstacles to collecting and improving outpatient data sets;
- identify priority technical activities to advance outpatient data collection and analysis capacity in health data organizations
- 3) provide training and technical assistance to promote outpatient data collection; and
- 4) inform HCUP Partners of developments in outpatient national standards and identify high priority outpatient issues for national standards development.

Through conversations with HCUP Partners, NAHDO found that the Partners wanted to learn about each others experiences on issues related to the creation of legal authority to collect outpatient data, the development and implementation of an outpatient data program, and how to use outpatient data most effectively. To meet these needs, NAHDO has conducted interviews with three HCUP Partners to date. The initial set of interviews focused on the experiences of state government data associations. Interviewees include:

- Bruce Burns, Texas Department of State Health Services, Center for Health Statistics, Texas Health Care Information Collection (THCIC)
- Jay Buechner and Karen Williams, Rhode Island Department of Health
- Pete Bailey and Mary Tyrell, South Carolina Budget and Control Board Office of Research and Statistics

Recognizing that the needs and issues pertinent to state government data associations may not be universally applicable, similar interviews will be conducted with HCUP Partners from hospital associations and private data organizations.

Interview with Bruce Burns, Texas Department of State Health Services, Center for Health Statistics, Texas Health Care Information Collection (THCIC)

Background

On June 21, 2005 Bruce Burns, D.C. from the Texas Department of State Health Services (DSHS), Center for Health Statistics (CHS), Texas Health Care Information Collection program (THCIC) participated in a phone interview with Pam Owens of AHRQ and Bob Davis representing NAHDO. The THCIC was created by the 74th Texas Legislature in 1995. THCIC is mandated to collect inpatient data and is charged with reporting on the quality performance of hospitals and health maintenance organizations operating in Texas. THCIC does not collect outpatient data. The purpose of this call was to share with other HCUP partners the experiences in Texas of the development of rules related to the collection of outpatient data. The intent of this conversation was to learn lessons that would apply to all HCUP partners. For that reason, issues related to internal politics in the state of Texas were not discussed.

General Comments

The following comments were reiterated throughout the phone interview.

BB stated that finding effective means of communication with each stakeholder was a critical component. In hindsight more information about the format and content of the applicable standards, such as merging the state specific data needs and definitions with the content of the standards, would have been very helpful for legislators and staff drafting the statute. An example of this was the desire to collect race and ethnicity, but the language of the regulations restricted the data collected to the existing billing formats (UB-92 and now HIPAA institutional implementation guide of the American National Standards Institute (ANSI) 837 standard). The issue is that race and ethnicity was not supported by the UB-92 and is not supported in the implementation guide. This example shows the disconnect between what was being proposed by the legislature and what was technically feasible by the established standard billing formats. This problem was attributed to the fact that the stakeholders most influential in the writing of the rules did not have enough technical knowledge about the billing formats and the requirements and resources needed regarding modifications to write meaningful regulations. A reoccurring theme in this discussion was the importance of matching the capabilities of the applicable standards with the legislative intent to answer questions of interest in Texas.

Developing rules, regulations and/or instructions

- > BD: What relationships are necessary to successfully promulgate rules, regulations and/or instructions?
 - BB: The relationships with the legislature and their staffs, the hospital association, business community, state medical association, consumer groups and industry advisory committees were most important. It should be noted that the industry advisory committees were mandated in the initial Texas legislation and were abolished later by the legislature. Stakeholders approached the agency executives and urged that an advisory group be formed to address sensitive issues. Executive leadership agreed with the stakeholders and the need for an advisory group. The Health Data Collection Workgroup (HDCW) was formed and meets on an as needed basis.
 - o BD: Do you have any suggestions how this is done for each stakeholder (i.e. legislature, legal staffs, agency management, industry representatives, etc)?
 - BB: Developing regulations was an arduous task as stakeholders continued to be involved through the advisory committees prior to their abolishment and creation of the HDCW. Stakeholders want to continue to input into the

process for collecting and reporting of hospital discharge data. The stakeholders have demonstrated the desire to "protect their turf." It was easier/better to address the concerns of stakeholders informally prior to regulations being proposed formally, instead of addressing those concerns by formal process (negotiated rulemaking).

With that said, BB would still recommend trying to involve as many stakeholders as possible in the process.

 BD: What type of communication for each of these stakeholders do you recommend?

BB: There was no unique way to communicate with all stakeholders, but recommended a large variety of means: written drafts of proposed regulations, e-mail, meetings, phone conversations, etc.

o BD: How do you find "allies" for your cause?

BB: The stakeholders were at the "table" from the inception of the process. As indicated earlier trying to find a middle ground solution was difficult to achieve. So the bottom line is the stakeholders were interested in promulgating regulations for the collection of discharge data, but were continually pushing their ideas of how the specifics of those regulations ought to be worded in order to have the stakeholders needs met or turf protected.

➤ BD: Do you have any general guidelines for what should be included in rules versus what should be included in supporting regulations or instructions?

BB: The importance of having clear definitions in the rules. For example, the Texas legislation included wording to collect data for quality reporting and for public health use. It was unclear whether both of these functions were to be satisfied by one or two data collection systems. This became a source of contention during the discussions about the regulations and implementing the data collection and reporting processes. For example, one unresolved question was whether public release of the data would have something to do with quality of health care or not.

This goes back to the recommendation that the legislators and their staffs become educated on the technical capabilities of the applicable standards intended for use.

BD: Do you have specific examples that could be shared of language from successfully promulgated rules, regulations and/or instructions?

BB: One recommendation is that the language in the regulations be the same or similar to that in the legislation. This would help resolve some of the ambiguities that resulted in the process to develop their regulations.

BD: Do you have a bulleted list of "must" have items to be included in rules and/or regulations?

BB: In Texas there is an administrative law manual that details the requirements for developing regulations through negotiated rulemaking. I was suspected that Texas is like many other states in this regard.

 BD: Do you have a list of "hot button" items that would best NOT be included in rules, regulations and/or instructions?

BB: The "hot button" issues in Texas were primarily related to data reporting issues. There were unresolved questions on collection of some controversial data elements, such as race and ethnicity. There were also unresolved issues

on what would or should be reported. One such example was how to report low volume cases and what represented a low volume.

The other issue of consequence was for any part of the system that would create a significant implementation cost to Texas hospitals.

In yet another example of a conflict between the legislation and the proposed regulations was a provision in the law to provide longitudinal tracking of patients and not reveal information that could reasonably reveal the identity of a patient. When those provisions of the law were drafted for implementation in the regulations, some stakeholders were concerned about the potential consequences of identifying individuals to make the creation of longitudinal file possible. The legislation also restricted the access to the patient identifying data elements to only creating the uniform identifiers (not always unique, since a patient may end up with more than one uniform identifier), thus prohibiting linking the data with other databases.

➤ BD: Would it be helpful to have a survey of states that already have rules, regulations and/or instructions authorizing data collection initiatives?

BB: It would be helpful to have a survey of states that have already developed rules, regulations and/or instructions authorizing data collection initiatives.

o BD: Do you have suggestions for the questions that should be included on the survey?

BB: A survey that includes access to other state laws, and regulations / instructions and contacts within each of those states for networking. A survey that includes a question about the data standards used (if any) in each state. The questions regarding data standards should ask about issues of format and content separately.

> BD: How do you anticipate future data needs (i.e. clinical data elements that are now being suggested for pay-for-performance initiatives) when writing rules, regulations and/or instructions?

BB: Suggestions related to this question include:

- ✓ Look for activities in other states that are showing leadership in moving their data collection systems forward.
- ✓ Look for federal initiatives on future data needs for guidance
- ✓ Provide vehicles to access journal and other professional articles related to future data needs
- ▶ BD: If you had a "mulligan" for writing your existing rules, regulations and/or instructions, what would be lessons learned that would have changed your approach?

BB: To do a better job educating the legislature and their staffs to balance the needs of the state within the capabilities of nationally approved standards, including the format and the content.

Interview with Jay Buechner and Karen Williams, Rhode Island Department of Health

Background:

On June 15, 2005 Jay Buechner and Karen Williams from the Rhode Island Department of Health participated in a phone interview with Pam Owens of AHRQ and Bob Davis representing NAHDO. Rhode Island Depart of Health is a state government organization that is mandated to collect administrative data. RI began collecting emergency department data in 2005. The purpose of this call was to share with other HCUP partners the experiences in Rhode Island designing their emergency department data collection system as they prepare to implement the system.

How to Get Started

> BD: What organization in your state is responsible for the collection of the administrative data?

JB/KW: In Rhode Island, the Department of Health is responsible for the collection of administrative data and in particular their emergency department data, but they have a special relationship with the state hospital association. Hospitals have the choice of submitting data directly to the Department of Health or through the hospital association.

The regulations are promulgated by the Department of Health. Hospitals have the option of reporting directly to DOH or through a designated vendor or other third-party. Specialty hospitals submit data directly to DOH. Acute care hospitals submit jointly through state hospital association's contracted data processor.

There are issues with synchronizing the edits for data submitted directly to DOH versa the data submitted through the state hospital association. There has not been a problem with the timing of data submission through either option.

BD: What organizations in your state will be primary users of the proposed new data collection

JB/KW: Currently, the principal users of the data are state agencies including; programs within the Department of Health (Injury Prevention, Tobacco, Diabetes), the Department of Human Services for use by the Medicaid program and analysis of services provided the state uninsured, and the Department of Transportation as part of CODES project analysis. Individual hospitals also have used the data for their own purposes.

It is important to note that the Department of Health Rhode Island plans to use hospital data to evaluate new legislation for a smoke free work place.

It should be noted that the hospital association typically uses the data sent to directly to them to support the data needs of the hospitals.

▶ BD: What types of services are currently collected?

JB/KW: In Rhode Island, inpatient, emergency department, and observation data are collected today.

BD: What type of services are not currently collected, but are needed?

JB/KW: In Rhode Island, there is general authority, but no regulations in place, to collect ambulatory surgery, community health center and hospital clinic data. There is recent interest in physician office data and health plans' claims data. With that said there are concerns about the infrastructure to make good use of large volumes of data, particularly from ambulatory care settings. There was also concern that all of these data sources would be resource intensive to collect and / or analyze. The collection of claims data was cited as an example of data that would potentially over stretch the foreseeable resources of the Department of Health.

BD: What relationship will the new data collected have with existing data systems?

JB/KW: It is important to note that there was no effort by any state stakeholder to block the collection of emergency department data from design to implementation. There are plans to link emergency department data with other data collected by the Department of Health. Though there is no linkage variable that could be used across delivery systems, they expect to use a combination of demographic information along with hospital specific medical record numbers. The desire to connect emergency department data with other data sources is being driven by industry need. This includes trauma capacity planning (state-driven) and hospitals interested in amongst other things the financial impact of stays designated by payers as observation stays.

o BD: How do you identify potential adversaries?

JB/KW: Though there were no strong adversaries to the emergency department data collection initiatives, it was important to address the concerns voiced by the privacy advocates and the state hospital association. The hospital association was concerned that necessary changes to be made by their data processor would cost its members too much money, the possible implications of data linkage, or possible conflicts with provisions of the HIPAA data standards final rule.

The other issue with the hospital association is a difference of opinion on when to start the data collection. After a one-year delay from the proposed implementation date, they requested an additional 6-month delay, but have since agreed to implement as of the planned date, with additional time for submission.

No other group voiced opposition or voiced concern on the initiative to collect emergency department data in Rhode Island.

o BD: How do you identify potential allies?

JB/KW: All potential users of emergency department data have been very supportive of the initiative to collect this information and have been allies. In particular the DOH program areas previously mentioned and the hospitals themselves have supported these DOH collection efforts.

> BD: What efforts were needed in the past to establish authority for that collection?

JB/KW: The existing hospital licensure statues in Rhode Island already established authority for promulgating regulations requiring the collection of emergency department data. However, implementation of the data system required promulgation of regulations providing the specific reporting requirements and identification of the resources needed to maintain and analyze the emergency department data.

BD: What obstacles / challenges have prevented / limited the collection to date?

JB/KW: During the design phases of the project the hospitals requested that the data requirements be limited by what was defined by the UB data set. The Department of Health had the authority to extend the requirements beyond what is supported in the UB data set, but issues of internal hospital system capabilities were a significant factor in design decisions.

Acute care facilities have chosen to submit the data to DOH using the hospital association's data processing contractor as a third party, and there have been delays in the signing of a modified contract between the hospital association and its vendor.

BD: What outside help would be valuable to moving the new collection initiative forward?

JB/KW: Collaboration with other states that have already developed emergency department systems is important. The perspectives of other states about the details of hospitals' billing systems, HIPAA provisions that would impact state systems (transactions and codes, privacy, security, identifiers), and highlighting uses of the data that have influenced policy makers are important. There was also a comment about the need to be educated about the applicable standards related to the data elements and code structures being considered for inclusion in the Rhode Island system.

The key problem was establishing and continuing effective lines of communication amongst the states with lessons to share with those with lessons to be learned. The NAHDO and HCUP listservs, NAHDO and HCUP web sites, and direct communications via meetings and phone conversations were cited as effective means of communication. Because the importance of these state to state communications, any innovative additions to the above mentioned means of communication would be well received.

o BD: Help identifying the critical relationships based on other states experiences

JB/KW: Knowing what other states view as key relationships to support collection of emergency data as well as how to effectively use the data would be very helpful. Anything that AHRQ does to promote this type of collaboration is appreciated.

o BD: Help identifying applicable data standards

JB/KW: The respondents indicated that AHRQ should continue to contract with NAHDO to provide access to a standards consultant to answer standards related questions and to represent state interests at meetings of the standards development organizations and data content committees.

o BD: Help "marrying" state needs with the applicable national standards

JB/KW: NAHDO and HCUP listserv are effective for requesting information and vetting associated issues. Though the conflicting timelines of that vetting process, standards development organization meeting dates, and state needs is problematic. It was requested that the standard development organization meeting schedules be posted for the partners.

o BD: Help specifications that are consistent with applicable national standards

JB/KW: Postings on the HCUP project web site hosted by NAHDO as well as the listserv posting be continued. In addition they suggested packets of materials

highlighting key issues be developed and distributed by various means to the partners.

Another important issue was the need to get vendors to support state data needs at an affordable cost. A topic for further discussion would be the question of "how to get vendors on board"? Part of this discussion would be establishing guidelines for whose responsibility it was to get information to vendors for state and national standards issues.

 BD: Help connecting to the "appropriate" contact from other states that have already implemented similar systems

JB/KW: It would be helpful having more detail in the contact information from other states. This would include e-mail addresses, web sites, and / or phone numbers of the individuals at each state responsible for the technical and policy issues related to their collection and use of emergency department, inpatient, ambulatory surgery as well as other data systems.

> BD: How do you define Outpatient Services

JB/KW: In Rhode Island, outpatient services for the data they currently collect (emergency department and observations) is defined exclusively by UB revenue codes. The 045x revenue code is used to identify emergency department visits and the 0762 revenue code is used to identify observations. There was one exception mentioned for their two psychiatric hospitals. Though these hospitals have no emergency departments, visits are determined as emergency based on physician evaluations. Those cases would be submitted to DOH.

o BD: What limitations in your data do you anticipate using that definition

JB/KW: Not all observations are captured using the UB revenue code because of coding issues and that some observation and emergency department visits may be bundled in with other forms of treatment, which means there would not be sufficient granularity for the Rhode Island system.

More work needs to be done nationally to improve the definitions for each type of outpatient service deemed necessary for states to collect. This would include amongst other things issues related to outpatient bills that are rolled up at the expense of sufficient granularity for how the data is to be used by the states.

o BD: What feedback have you received from your providers on the definition

JB/KW: No problems reported yet from their providers.

BD: What edits particular to your state have you implemented or anticipate implementing.

JB/KW: A list of local edits applied to the Rhode Island emergency department data elements has been sent to the interviewers to incorporate these edits into a document to be shared with other partners.

 BD: What technical assistance related to edits would be useful in the implementation of your system JB/KW: There was a suggestion that work be done to achieve consensus on thresholds for all edits common across other state systems. For example, they indicated the value of having consistent edits for preoperative days. (Should this be the difference between the admission / start of care date and the procedure date OR should there be other factors?)

<u>Editors Note:</u> Having consistent edits across state borders would very positively impact the quality of data reported to HCUP.

➤ BD: If you had a "mulligan" the development of your current data collection, what would a lesson learned that would change in the process to enhance your current data systems?

JB/KW: They would have used their "mulligan" to:

- o Get a better understanding about internal provider information systems
- Get a better understanding of the current applicable national data standards and in particular the ANSI ASC X12 837
- Get a better understanding about the advantages and disadvantages of using the HIPAA versions of the claim standard.
- Written data specifications more aligned with the factors mentioned in bullets mentioned above.

Interview with Pete Bailey and Mary Tyrell, South Carolina Budget and Control Board Office of Research and Statistics

<u>Background</u>

On June 27, 2005, Pete Bailey and Mary Tyrell of the South Carolina Budget and Control Board Office of Research and Statistics participated in a phone interview with Pam Owens of AHRQ and Bob Davis representing NAHDO. Inpatient, ambulatory surgery, and emergency department data is collected in South Carolina. Each of these data collection systems is mandatory. The outpatient data collection began in 1996. The purpose of this call was to document South Carolina's efforts of integrating many data sources with the goal of generating meaningful data analyses to improve the quality of life in South Carolina and to share South Carolina's experiences with other HCUP partners. The intent of this conversation was to identify lessons that could apply to any HCUP partner.

From the onset of the call, the responders and the interviewers agreed that providing a strong use case for these data was the best defense against any attempts to limit or eliminate data sources. South Carolina has a proven track record for developing innovative approaches to present compelling use cases for their data viewed in an integrated fashion.

General Comments

It is important to note that the value added by the South Carolina Budget and Control Board Office of Research and Statistics is their knowledge and experience developing integrated data sets. Their role is to provide technical and analytical support and guidance to state agencies, researchers and any other data requester to produce comprehensive data analyses. South Carolina data dissemination efforts have focused on producing data analyses based on the needs of state agencies, researchers and other data requesters rather than generating stand alone data products. As with all data analyses, the political discussions that generate policy decisions are left to the agencies involved in the data analyses.

Developing reports to use data

BD: What relationships are necessary to successfully produce the reports that fully utilize the capability of the data?

PB/MT: The South Carolina Budget and Control Board Office of Research and Statistics have two groups of partners. The first group is comprised of the state agencies that control human service, educational, criminal justice and health data sources. Currently, there are state mandates for submission of these data but originally these data were supplied voluntarily. The guiding philosophy for data acquisition is that data must remain under the control of the agency/entity submitting the data. Because of the power of integrating data with other related data sets, non-profit entities such as free medical clinics and federally qualified health centers have also voluntarily contributed their data subject to the same types of agreements.

The second is their Data Oversight Council that oversees the private sector health data collection and use for legislatively required medical record and billing data submitted from hospitals, ambulatory surgery centers, home health agencies and other private health care entities. The Council is a legal entity representing health care providers, health care payers, businesses and state government. The mission of the Data Oversight Council is to provide equal access to these healthcare data to all requestors.

Guaranteeing that control of data remains in the hands of the supplying entity is the beginning of the process that will establish a trusting relationship among all stakeholders. Building and maintaining these trusting relationships is the foundation used to guide all data acquisitions and development by the South Carolina Budget and Control Board Office of Research and Statistics. This is best achieved through consensus rather than majority process. Job One of the South Carolina Budget and Control Board Office of Research and Statistics is to make their stakeholders be the best they can be by enabling them to monitor, evaluate and redirect programs using integrated data. The guiding principle in this process is to not get between those stakeholders and the political process. Making the consensus process work requires a big educational effort on the ways to use and share integrated data, giving the stakeholders the tools to handle political issues. The educational process should not be rushed, to ensure all stakeholders realize the potential of their integrated data. For example, use of local human services data sources were cited. A local school district profiled the health care needs of students in four high schools using linked integrated data. Based on these data, a health services delivery plan was developed and submitted for grant funding for these students. Another school system evaluated its school nurse program identifying improvements in the health status of students as a result of this program.

The principal role of the South Carolina Budget and Control Board Office of Research and Statistics is to develop integrated data sets that can be used by the stakeholders for their own business purposes. In this way the political issues are handled appropriately by the data source owners. For this reason the South Carolina Budget and Control Board Office of Research and Statistics develops only limited reports for publication. Statistical analyses and reports generated for partners to use in the administration of programs remains a primary objective.

It should also be noted that the South Carolina Budget and Control Board Office of Research and Statistics is in a partnership agreement with the state Medicaid program to develop their client management system. This is just one example of using technology to disseminate information that has the potential to improve the lives of people receiving state agency services. The system is a web-enabled, secure system accessible to state health and human service agencies, upon resolving appropriate legal issues of sharing client specific data between agencies. The Client Management System provides an integrated record of services by client to assist case managers,

health care providers and other state agency service professionals to develop comprehensive care plans by client. Taking this to the next level, the developers hope that this system will evolve into an electronic medical record system.

o BD: Do you have any suggestions how this is done for each stakeholder?

PB/MT: As noted above, the data sources continue to control their own data even after they formalize the relationship with the South Carolina Budget and Control Board Office of Research and Statistics.

The operating protocols between the South Carolina Budget and Control Board Office of Research and Statistics and their stakeholders must always be resolved through consensus BEFORE any technical work is done. This requires formally committing to a consensus process for all decisions made between stakeholders. For example, access to the "data cubes", a web-based dynamic reporting system at an aggregate-level, must be based on consensus of all stakeholders supplying data. The power of a web-based dynamic reporting system is a topic for all stakeholders in South Carolina. Currently, three such data cube systems have been developed and discussions are in progress to develop a consensus release policy to stakeholders other than those supplying data.

o BD: Are there any cardinal rules for developing and maintaining these relationships?

PB/MT: Below is the list of rules:

- ✓ "don't allow partners to get hit from the side" always keep partners informed
- ✓ "build process first as a means of building trust before moving on" –
 agencies have the policy knowledge
- ✓ "Ownership issues are a big deal" data can destroy as well as improve
- √ "don't upset the balance of power"
- ✓ "don't get out in front of your friends" acknowledge your partners
 first

Through years of being in trusted relationships the South Carolina Budget and Control Board Office of Research and Statistics has positioned itself to negotiate in order to achieve desired consensus among agencies that may have trust issues. The South Carolina Budget and Control Board Office of Research and Statistics is proud of the fact that they work do for all stakeholders both public and private.

➤ BD: Do you have examples of reports that have had a significant impact on the decision makers with authority over the impacted data systems?

PB/MT: One of the missions of the South Carolina Budget and Control Board Office of Research and Statistics is to open up the world of access for their stakeholders by developing compelling data analyses or tools. Access to integrated data enables agency administration to look at the bigger picture. South Carolina is in a unique position to implement new interventions based on data from educational, social, health and criminal justice data for a community. It is important to re-iterate that the South Carolina Budget and Control Board Office of Research and Statistics is in the business of creating integrated data sets across a wide variety of data sources for use by their partners. They are not in the business of developing the specific reports for publication.

The stated goal of the South Carolina Budget and Control Board Office of Research and Statistics is to improve the effectiveness of interventions and policies of each of the partner agencies through the use of integrated data.

How do you identify or anticipate future reports that will make a "difference" for your community?

PB/MT: Integrated data offers their partners in the ability to make a difference. Often there are opportunities to go to different agencies with "wow! you could do this" presentations to help educate administrators on the use of integrated data. In addition, the South Carolina Budget and Control Board Office of Research and Statistics often get to serve in the role of connecting the ideas coming from researchers to agency data sources to also make a difference.

Do you have any suggestions on how to address the politics associated with publishing a new set of reports?

PB/MT: As stated earlier, all political issues are addressed by the agencies. The South Carolina Budget and Control Board Office of Research and Statistics is careful to avoid being involved in political dialogs.

Do you have any cardinal rules for distinguishing between publishable and non-publishable reports?

PB/MT: The South Carolina Budget and Control Board Office of Research and Statistics is always a partner or a sub line for reports produced by the agencies. Again their value added is the integrated view of the problem. This includes development of the integrated data set and potential analyses as well as education on how to use that integrated view.

What has been the impact of those reports?

PB/MT: The dilemma for the South Carolina Budget and Control Board Office of Research and Statistics is that by staying in a support role it is a constant struggle to maintain funding for the work they do to develop integrated data sets. From an outside observer, however, it is clear that the long existence of the South Carolina Budget and Control Board Office of Research and Statistics is strong evidence of the valued impact the use of integrated data has had on agencies and researchers.

> BD: Who is the audience for the reports?

PB/MT: Again, the purpose of the data is to support the programs, researchers, healthcare facilities and professions, and any other data requestor's effort to use these data to improve the lives of people in South Carolina. The audience is varied because of the many partners the South Carolina Budget and Control Board Office of Research and Statistics has in agencies in South Carolina.

> BD: What are the barriers for producing those reports?

PB/MT: One of the key barriers was gaps in knowledge of potential users of their integrated data. This includes:

- Educating researchers to request what they need as opposed to what they might like to have (minimum necessary).
- ✓ Educating people to better understand the capabilities of data
- ✓ Educating people on how to use data
- ✓ Educating the people about the power of integrated data and the need to think "outside the box" to expand possibilities beyond what has been done before.

Other barriers included the difficulty of getting funding to continue the work, the fact that data is a tough sell, and issues related to internal staff (such as keeping staff long enough for them to develop history for the capabilities of integrated data). Integrated data systems require a body of knowledge gained over time with the use of these data. Having resources available to remain competitive with the private market to insure staff retention is difficult.

➢ BD: If you had a "mulligan" for developing reports, what would be lessons learned that would have changed your approach?

PB/MT: Though at times they had wished for more secure funding and more influence, hindsight tells them that they know enough now that they have no regrets. They are convinced that answers lie in integrated data sets that they have become so expert about.