Over forty percent of all births in the United States are funded by Medicaid\(^1\). Birth outcomes can have a lifelong impact on these children and their families and a significant impact on health care costs over the entire lifespan. Medicaid, as the dominant payer across the country, holds powerful levers for policy change, anchored by the clinical and quality science expertise of the State Medicaid Medical Directors. Therefore, with support from the Agency for Healthcare Research and Quality, the Centers for Medicare & Medicaid Services, and the Health Resources and Services Administration, and working collaboratively with the National Association of Medicaid Directors, the Association of State and Territorial Health Officials, the National Association for Public Health Statistics and Information Systems, the Association of Maternal and Child Health Programs, and the Secretary's Advisory Committee on Infant Mortality, the Medicaid Medical Directors (MMD) are reaching out to State vital statistic departments to coordinate perinatal quality improvement efforts for the Medicaid population across multiple States. The MMDs have clinical expertise around the country; collectively contributing insights and improving care as demonstrated previously by their previous collaborative projects, *Antipsychotic Medication Use in Medicaid Children and Adolescents Study and State Acute Care 30-Day Hospital Readmissions.*

Similar to past projects, the MMDs are addressing perinatal care through a multi-State, inter-agency initiative focused first on elective deliveries. Multiple studies\(^2\) indicate that elective deliveries, including both inductions and cesarean sections, especially those before 39 weeks gestational age, carry significant increased risk for the baby. Therefore, to better understand elective deliveries within the Medicaid population, the purpose of this project is to:

- Track recent trends in elective deliveries and birth outcomes across States.
- Understand the impact of elective deliveries on birth outcomes in the Medicaid population and describe population variation among States.
- Review the cost of elective deliveries to Medicaid based on hospital stays.
- Collect current State policies and programs related to early elective deliveries.

To address these goals, we are collecting aggregated data from birth certificates and, where possible, linking this data to Medicaid information. Rates are calculated by States using methods already established by other national initiatives and then analyzed centrally. In addition to identifying States’ relative birth outcomes, the process allows for:

- Understanding the differences in data collection between States;
- Assisting States with linking vital statistics and Medicaid data and comparing the inter-reliability;
- Utilizing birth certificates as a data source to calculate performance measures;
- Improving the availability, quality, and timeliness of data so that it can be more effectively used to better inform policy design and evaluate successful programs; and

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\(^2\) Examples:

Medicaid Medical Director Led Multi-State and Inter-Agency Perinatal Care Project*
DATA REQUEST: States with linked Vital Statistics and Medicaid Claims

**What:** The MMDs, with support from the Agency for Healthcare Research and Quality, Centers for Medicare & Medicaid Services, and the Health Resources and Services Administration, and working collaboratively with the National Association of Medicaid Directors, Association of Maternal and Child Health Programs, National Association for Public Health Statistics and Information Systems, the Association of State and Territorial Health Officials, and the Secretary's Advisory Committee on Infant Mortality is requesting that your State participate in this quality improvement project on perinatal care within Medicaid. Specifically, the ask is for States to aggregate data on singleton Medicaid births and elective deliveries (inductions and Cesarean sections).

**Data Sources:** 1) Vital Statistics and 2) Medicaid Claims

Use Medicaid claims as the population for all variables including elective deliveries. The population should be drawn from **singleton Medicaid births** identified through the Medicaid claims. So when identifying the elective deliveries, the population should be from your linked data (from the Medicaid claims) and then the variables you choose are from vital statistics. (There is one question on the data form asking how many births you have from vital statistics that identified Medicaid as the payer source but that is the only time we want you to use the Medicaid population identified by Vital Statistics).

**Resources:** States will be provided with the following resources to help complete this data request. All resources should be used as guides to help assist in this data request. **Please read all the materials closely before beginning the analysis.**

The linked data form and data dictionary were developed for the 2003 version of the birth certificate. However, throughout both documents additional information is provided for States using the 1989 version of the birth certificate currently or at some point in the last eight years.

- **Data Form:** This is a Microsoft Excel document called “Linked Data Form” to fill in with your State’s data. The first worksheet outlines the research plan for this project. Please review it carefully before beginning to use the data dictionary because it helps to understand the questions we hope to answer with this analysis. Following two worksheets outlining the research plan and rationale for the research questions, the form has separate worksheets for each research question and displays tables to enter narrative responses and data.

- **Data Dictionary:** This is a Microsoft Excel document called “MMD Data Dictionary_Linked” to use as a reference tool to understand the standardized descriptions of the data elements needed to complete the data collection effort. This dictionary is not a step by step guide; rather it provides definitions for each variable needed to complete some worksheets in “Linked Data Form” with the understanding that each State defines data elements differently. It includes details on variables that exist in the data sets being utilized and basic details about how to calculate elective induction variables.

*The data submission period for this project was March-December 2013. However, we encourage states to use these materials internally.*
There are six worksheets in the dictionary:

- **Assumptions** – provides basic assumptions about the data and the data request
- **List of required variables R**- provides a list of all the required variables in the data dictionary taken from the revised 2003 birth certificate
- **List of required variables UR**- provides a list of all the required variables in the data dictionary from the unrevised 1989 birth certificate
- **Data dictionary**- provides definitions of each variable in the data form
- **Identifying elective procedures R**- provides specifications to define and calculate an elective procedure using the revised 2003 birth certificate
- **Identifying elective procedures UR**- provides specifications to define and calculate an elective procedure using the unrevised 1989 birth certificate

- **Web Trainings**: The project hosted Web trainings for States giving an explanation of these requests and a discussion of the Data Forms and Data Dictionaries. These trainings were for State data analysts who are pulling the data and completing the forms for these requests. Materials from these events can be found below in this document.
Medicaid Medical Director Led Multi-State and Inter-Agency Perinatal Care Project*
Frequently Asked Questions (FAQ)

What value will this project add to the field?

This project is designed to improve our knowledge about birth outcomes for infants whose birth is funded by Medicaid, which funds over forty percent of all births in the United States1. The purpose is to track recent trends and understand the impact of elective (non-medically indicated) delivery by tabulating, linking (when possible), and analyzing State level data. With this information, important advances in policy and related quality improvement initiatives within and between State agencies can be planned. This project allows State health officials and their Medicaid colleagues to partner to review the data and findings to help develop State-level initiatives, including improving the collection of such data.

Are both State and National Medicaid and Public Health agencies in support of this project?

This project is supported by the Agency for Healthcare Research and Quality, the Centers for Medicare & Medicaid Services, the Health Resources and Services Administration, and is working collaboratively with the National Association of Medicaid Directors, the Association of State and Territorial Health Officials, the National Association for Public Health Statistics and Information Systems, the Association of Maternal and Child Health Programs, and the Secretary's Advisory Committee on Infant Mortality, to reach out to State vital statistic departments to coordinate perinatal quality improvement efforts for the Medicaid population across multiple States.

How is the data that will be generated from this project different than what States can get from the National Center for Health Statistics?

The National Center for Health Statistics (NCHS) has a few public data sets with States’ vital statistics data that may be used for some benchmarking in this project. However, the publically available NCHS data does not allow us to use protocols to evaluate birth outcomes from elective deliveries, which is the purpose of this project, or to link vital statistics to Medicaid claims. In addition, at this point NCHS does not distinguish Medicaid births in their State-level data set, nor is the dataset more timely data than what States can provide directly.

How is this project different and the same as other National and State-level initiatives addressing elective deliveries?

Because this topic is being addressed by other National and State-level initiatives, there is a clear recognition that it is an important topic that should be addressed by various decision makers at all levels from the hospital to the State government. In addition, this project supports efforts of other National initiatives such as the Collaborative Improvement & Innovation Network (COIN) from which we are basing the elective delivery definition. However, this project is different from other initiatives in that new and additional information will be created to allow States to review findings and drive policy

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*The data submission period for this project was March-December 2013. However, we encourage states to use these materials internally.
changes in Medicaid programs. In States capable of integrating data sets, this project encourages linking vital statistics to Medicaid claims data to assess maternal mental health and the cost of subsequent neonate admissions.

What are some assumptions about the data analysis request?

The request:
- is for aggregated State-level data
- involves States summarizing certain variables and performing cross-tabulations
- does NOT ask States to run multivariable models
- will be set-up so that it can re-run on a periodic basis for States to continue to assess elective deliveries

Why were the specifications that were developed by William Sappenfield, MD, MPH, and his team at University of South Florida (USF) and the Florida Department of Health used to calculate elective deliveries?

Dr. Sappenfield’s specifications were used to calculate elective deliveries because it is:
- based on the Joint Commission’s measure, but only uses data available in vital statistics.
- already used by States, including those in COIN.
- the best way to measure elective deliveries using vital statistics data. More accurate datasets, such as data from chart reviews, is difficult to collect at the State level and is beyond the scope of this project.

We understand that this measure may over identify elective deliveries; however analysis shows that this identification is directionally consistent with more comprehensive chart review measures. To assist States with developing a common measure of assessment and to minimize burden, this methodology was chosen.

What is in the “package” of tools given to States to assist with completing this project?

There are several tools, in addition to this FAQ document, to help States complete this analysis. They clearly spell out the data request and provide rationale for the request and its relationship to the purpose. Included in the “package” is:
- Specific date request outline.
- Data dictionary with elective delivery specifications. This serves as a reference tool that provides standardized descriptions of the data elements needed to complete the data collection effort. It includes details on variables that exist in the data sets being utilized and basic details about how to calculate elective induction variables.
- Data entry form
- Archived Webinar reviewing the request.
MMD Led Perinatal Project

Data Request Training for States with Linked Data

March 2013

Academy Health: Katherine Griffith, M.H.S., Tara Trudnak, Ph.D., M.P.H.
Provider Resources, Inc.: Nadine Manzi, PMP, Warren Jones, M.D., Fred Navarro, MA

Project Co-Chairs:
Mary Applegate, M.D., Medical Director, Ohio Health Plans, Ohio Department of Job and Family Services
Jeff Schiff, M.D., M.B.A., Medical Director, Purchase and Delivery Systems, Minnesota Department of Human Services
Research Purpose and Objectives

• Better understand elective deliveries within the Medicaid population
  ▪ Track recent trends in elective (non-medically indicated) deliveries and birth outcomes.
  ▪ Understand the impact of elective deliveries on birth outcomes and describe population variation among States.
  ▪ Review the cost of elective deliveries to Medicaid (from claims).
  ▪ Assist States with making related policy and program decisions.
Partners

• **Supported by:**
  - Agency for Healthcare Research and Quality (AHRQ)
  - Centers for Medicare & Medicaid Services (CMS)
  - Health Resources and Services Administration (HRSA)

• **Working with:**
  - National Association of Medicaid Directors (NAMD)
  - Secretary’s Advisory Committee on Infant Mortality (SACIM)
  - Association of State and Territorial Health Officials (ASTHO)
  - National Association for Public Health Statistics Information Systems (NAPHSIS)
  - Association of Maternal and Child Health Programs (AMCHP)
Data Request Walk Through
Data Form Content

• Various worksheets within the file include:
  ▪ Research Plan
  ▪ Rationale and References
  ▪ Description of Linked Data
  ▪ Trends from 2007-latest year
  ▪ Outcomes of Elective Deliveries
  ▪ Demographics
  ▪ Payments for Neonates
  ▪ State Policies
Data Dictionary

• **Purpose:** Serves as a reference tool that provides standardized descriptions of the data elements needed to complete the data collection effort

• **Overall design/content:** Includes details on variables that exist in the data sets being utilized and basic details about how to calculate elective induction variables
Data Dictionary Content

Various worksheets within the file include:

- Assumptions
- Required Variables List R (Revised Birth Certificate)
- Required Variables List UR (Unrevised Birth Certificate)
- Data Dictionary
- Identify Elective Procedures R
- Identify Elective Procedures UR
Identifying Medicaid Births

The first question requests that the total number of all Medicaid Singleton Births be reported from vital statistics only to provide a reference point for comparison. The Medicaid singleton delivery claims population should be used for generating all remaining requested data in this form, and the source of each variable (i.e. vital statistics, claims) is indicated throughout the data dictionary.
Time to Complete

• Took testers between 20-40 hours
• If your State is learning to link vital statistics to Medicaid claims, please:
  ▪ Allow for an extra 40% time to learn and do
Next Steps

• Talk with your State colleagues about collaborating