Introduction (Slide 1):
Welcome to the measure specification webinar for Maternal Health Measure 2 (M2) PC-02 Cesarean Birth given by the New Jersey Department of Health, DOH, to support hospitals participating in the Quality Improvement Program – New Jersey, or QIP-NJ. The purpose of this webinar is to define the components of M2, as well as describe the workflow for determining a hospital’s performance on this measure.

The full specification for this measure can be found on pages 74 through 76 of version 1.1 of the QIP-NJ Measure Specifications and Submission Guidelines document, also referred to as the Databook. This Databook is available for download on the Documents & Resources webpage of the QIP-NJ website.

M2 is a chart-based measure, meaning participating hospitals will be submitting data on attributed individuals via a flat file or via the excel-based standard reporting template as described on the Participants & Stakeholders webpage of the QIP-NJ website. Hospitals will run a query of their electronic health record (HER) system for records of attributed individuals after receiving attribution lists. The query will look for measure-specific denominator eligibility criteria as outlined in the measure specification.

All data components, including exceptions, will be reviewed for completeness and the Department of Health (DOH) will independently determine whether or not they qualify. Further, hospitals may estimate their performance, however this will be independently calculated and ultimately determined by the Department. Hospitals should note that incentive payments will be contingent on fully executing all QIP-NJ submission guidelines. For more information on data submission procedures of non-claims-based measures, please refer to the “Non-Claims-Based Measures” section on page 7 of the latest version of the Databook.

Agenda (Slide 2):
The agenda for this presentation is as follows: First, the Department will discuss the learning objectives of this presentation and provide viewers with links to the resource materials that inform this content in section one, “Presentation Information”. Then, in “M2 Overview” and “M2 Flowchart” the Department will provide viewers with a description of the measure looking at the workflow developed to codify measure criteria. In the “Standard Reporting Template” and “Understanding Measure Criteria” sections, the Department will explain how to report each of the measure components by examining the required data elements for the numerator, denominator, exclusions, and exceptions. Next, in “Examples with Sample Data,” the Department will provide examples of how a hospital might perform on this measure with individual-level sample data. In section six of this presentation, “How to Calculate Performance” the Department will discuss the intricacies of performance calculation taking into account the special considerations of this measure. Finally, to close the presentation under “Conclusion”, the Department will provide useful resources and contact information for questions not addressed in this presentation.
Acronyms Used in this Presentation (Slide 3):
This slide provides a list of acronyms and their definitions as they will be used in this PowerPoint. Please refer to this slide throughout the presentation.

Presentation Information (Slide 4):
By the end of this presentation, hospital viewers should be able to articulate how numerator compliance will be calculated for M2 and begin to plan for how the data submission process for this measure will be formalized at its hospital. This presentation aims to prepare hospitals for data submission activities by familiarizing them with the measure specifications and the corresponding value sets for M2, as well as the variables within the standard reporting template that will be used to identify M2 measure criteria.

Viewers are advised to review and frequently reference the Databook and the QIP-NJ Databook Value Set Compendium (also called the VSC) while listening to this presentation. Both documents may be found on the QIP-NJ website within the Documents & Resources webpage. Active links to these materials are also available in this presentation.

M2 Overview (Slide 5):
M2 has been adapted from National Quality Forum (or NQF) measure 0471. M2 will measure the rate of nulliparous women 8 to 64 years of age with a term, singleton baby in a vertex position delivered by Cesarean birth. The statewide benchmark for this measure is 23.6/1,000 deliveries. Please note that the baseline period runs from July 1, 2020, through December 31, 2020. The measurement period for year 1 runs from July 1, 2021, to December 31, 2021. For additional information, please also refer to the Databook.

M2 Flowchart (Slide 6):
Now, the Department will discuss the flowchart on this slide for Maternal Health Measure 2: PC-02 Cesarean Birth.

M2 Flowchart Overview (Slide 7):
In this presentation, the Department has created a flowchart for the denominator criteria and the numerator criteria. When calculated, the denominator will reflect the eligible population and the numerator will reflect the measure compliant population. The flowcharts have been developed to codify the measure criteria and assist in identifying the data elements.

M2 Flowchart Part 1: Denominator (Slide 8):
Part 1 of the M2 Flowchart displays a decision point for each criterion in M2 that determines if an individual from the attributed population should be included or excluded from the denominator.

Now, the Department will walk through the diagram taking time to consider each element. First, a hospital must determine if the individual is a member of the attributed population and nulliparous (Standard Reporting Template NULLIP). If the member is a member of this population, the hospital should check that they meet the additional denominator criteria. These include delivering a live term singleton newborn (Table M02_00) in vertex presentation (Table M02_01) with greater than 37 (Table M02_02) weeks completed. The associated value sets within the VSC are listed in parentheses here and in the Databook.
There are exclusions that must be considered when checking if an individual can meet the criteria to be included in the M2 denominator. Here is a list of the criteria:

- If the individual has an ICD-10-CM Principal Diagnosis Code or an ICD-10-CM Other Diagnosis Code for Multiple Gestations and Other Presentations
- If the individual has a gestational age of less than or equal to 37
- If the individual is less than 8 years or older than/equal to 65 years of age
- If you are unable to determine the patient’s age
- If the individual has a length of stay over 120 days
- If the patient is actively enrolled in a clinical trial

If any of the following criteria matches the individual in question, then they should be excluded from the denominator. The associated value sets within the VSC are listed in parentheses here and in the Databook.

M2 Flowchart Part 2: Numerator (Slide 9):
Part 2 of the M2 Flowchart displays a decision point for each criterion that determines if an individual should be included in the numerator. The ICD-10-PCS codes listed in value set M2_03 of the VSC reflect all possible numerator scenarios for this measure. The first orange diamond at the top indicates an individual who had an ICD-10-PCS Procedure Code for a Cesarean delivery. The second orange diamond indicates an individual who had another procedural code for a Cesarean delivery. The top two orange diamonds are scenarios in which the numerator criteria for the measure are met.

The third orange diamond indicates that the individual did not have an ICD-10-PCS Procedure Code for a Cesarean delivery. This is a scenario where the individual did not meet the numerator criteria.

Standard Reporting Template (Slide 10):
The Standard Reporting Template, as described in the materials posted on the QIP-NJ website, will be used to submit data for chart-based measures. Please refer to the Standard Reporting Template materials on the Participants & Stakeholders webpage of QIP-NJ website for information on how to use the template to report results for the baseline period, also known as MY0. Please also note that some of the columns from the standard reporting template have been omitted here for brevity.

Key Variables (Slide 11):
The following is a list of some of the key variables within the Standard Reporting Template that pertain to M2. Hospitals must report member data elements to identify the attributed individual. The M_ELEMMT variable refers to the data element component addressed by each row of data for an individual. In other words, does the row of data qualify the individual for the numerator or denominator or is the row being used to document an exclusion or exception?

The RES_VAL and CODE_VAL variables will be used to report the appropriate code, such as UBREV codes for eligible encounters, ICD-10 for exclusionary diagnoses or LOINC codes for screening tools used.

The measure specific-data elements will be used to document whether the mother was nulliparous and whether the baby was delivered in standard vertex position.
Understanding Measure Criteria (Slide 12):
Now that the Department has walked through the measure Flowchart and the key variables in the Standard Reporting Template, it can further examine what individual data elements are required to meet each criterion for M2.

M2: Denominator Criteria (Slide 13):
There are four criteria that qualify an individual for the denominator of this measure. First, an individual must be a nulliparous attributed member of the population. The data element required to verify this will be their encounter code. The column/variable in the standard reporting template used to report if an individual is nulliparous is NULLIP.

Second, an individual must deliver a live term singleton newborn. The data element required to verify if an individual has delivered a live term singleton newborn will be their encounter code. The column/variable in the VSC used to report if the individual has delivered a live term singleton newborn is M02_00.

Third, an individual must deliver in vertex presentation. The data element required to verify this will be their encounter code and encounter date. The column/variable in the VSC and Standard Reporting Template used to report if an individual has delivered in vertex presentation is Table M02_01 and SRT column “Vertex”.

Fourth, the gestational age of the newborn must be >= 37. The data element required to verify an individual’s age will be their encounter code. The column/variable in the VSC used to report the newborn’s gestational age is Table M02_02.

M2 Exclusion Criteria (Slide 14):
There are five exclusionary criteria for this measure. First, individuals are excluded if they have an ICD-10-CM Principal Diagnosis Code or ICD-10-CM Other Diagnosis Codes for Multiple Gestations and Other Presentations. The list of exclusionary diagnoses codes that would constitute an exclusion for M2 are available in Table M02_04 of the VSC. Individuals are also excluded if they have a gestational age <= 37. These encounter codes are located in Table M02_02. If an individual is > 8 years of age, >= 65 years of age or unable to determine (UTD), use the patient Date of Birth (DOB) to determine if they should be excluded. If an individual has a length of stay > 120 days, use the length of stay code to determine if they should be excluded. Finally, an individual will be excluded from the denominator of M2 if they are actively enrolled in a clinical trial. The exclusionary diagnosis codes for this value set are in value set Table M02_04 of the VSC.

To report exclusions on the standard reporting template, hospitals will need to use the M_ELEMT, RES_VAL, and CODE_VAL columns.

M2 Numerator Criteria (Slide 15):
An individual qualifies for the numerator of this measure if they have an ICD-10-PCS Procedure Code for a Cesarean delivery. The data element (the ICD-10_PCS code) required to prove an individual in the eligible population had a Cesarean delivery can be found in Table M02_03.
Examples with Sample Data (Slide 16):
Now, the Department will walk through a few examples with sample individual data. This data has been randomly generated and does not reflect any real individual information.

Sample Individual #1 (Slide 17):
First, DOH will review sample individual number 1.

Sample Individual #1: Profile (Slide 18):
The first example is a 31-year-old female with an encounter date on September 16th, 2020, as shown by the M_DOB variable and the SVC_DT variable. Please see Figure 1 for an example of how this data might be recorded using the Standard Reporting Template.

The first row of data notes that the individual delivered via Cesarean section, as noted by the ICD-10-PCS code. In the first row, the RES_VAL variable is equal to “J” which denotes an ICD-10-PCS code, and the CODE_VAL variable is equal to 10D0Z3, which indicates the type of delivery. In addition, notice how the M_ELEMT variable shows the first row of data as data that qualifies this individual for the numerator. The second row of data shows that the individual delivered a live singleton newborn, as indicated by the ICD-10-CM code in this row. In the second row, the RES_VAL variable is equal to “I” which denotes an ICD-10-CM code and the CODE_VAL variable is equal to Z370, which indicates the individual delivered a live singleton newborn in vertex presentation. The final row indicates that the 38th week of gestation was completed, as noted by the ICD-10-CM code. In the final row, the RES_VAL variable is equal to “I” which denotes an ICD-10-CM code and the CODE_VAL variable is equal to Z3A38, which indicates the individual completed 38 gestational weeks. Notice how the M-ELEMNT variable shows the second and third rows of data as data that qualifies this individual for the denominator.

Sample Individual #1: Denominator (Slide 19):
First, for this example, the Department assumes this is an individual attributed to your hospital and is nulliparous. Sample individual #1 has marked this in the Standard Reporting Template. Next, a hospital should ensure that this individual has delivered a live term singleton newborn in vertex presentation and that the gestational age is greater than or equal to 37. This can be found by looking at the codes from Table M02_01 and Table M02_02. This individual has ICD-10 Codes of Z370 and 080, meaning they have delivered a live term singleton newborn in vertex presentation and thus can be included in the denominator. When the gestational age is checked, a hospital would find that the individual’s gestational weeks ICD-10 code is Z3A38, meaning the newborn is at 38 gestational weeks. They can thus be included in the denominator. Finally, a hospital must check for exclusions in Table M02_04. This individual does not have an exclusionary diagnosis code, does not have a gestational age less than 37 weeks, is not aged less than 8 or more than 65 years old, or does not have a length of stay greater than 120 days. Given that they do not meet any of the exclusionary criteria, this individual is included in the denominator.

Sample Individual #1: Numerator (Slide 20):
Now a hospital must determine if sample individual #1 will be counted in the numerator. A hospital should see if the individual from the attributed population had an ICD-10-PCS Procedure Code for a Cesarean delivery. This can be checked in Table M02_03. When this table is consulted, a hospital will find that the individual had an ICD-10-PCS Procedure Code for a Cesarean delivery - 10D00Z3.
Therefore, performance has been met for this individual because they had an eligible procedure code for a Cesarean delivery.

Sample Individual #2 (Slide 21):
Next, DOH will review sample individual number 2.

Sample Individual #2: Profile (Slide 22):
The second example is a 43-year-old female with an encounter date on September 25th, 2020, as shown by the M_DOB variable and the SVC_DT variable. Please see Figure 2 for an example of how this data might be recorded using the Standard Reporting Template.

The first row of data notes that the individual delivered a live singleton newborn, as indicated by the ICD-10-CM code in this row. In the first row, the RES_VAL variable is equal to “I” which denotes an ICD-10-CM code and the CODE_VAL variable is equal to Z370, which indicates the individual delivered a live singleton newborn in vertex presentation. The second row indicates that the 39th week of gestation was completed, as noted by the ICD-10-CM code. In the final row, the RES_VAL variable is equal to “I” which denotes an ICD-10-CM and the CODE_VAL variable is equal to Z3A39, which indicates the individual completed 39 gestational weeks. Notice how the M_ELEMNT variable shows the first and second rows of data as data that qualifies this individual for the denominator. The final row of data shows that the individual did not deliver via Cesarean section, as noted by the ICD-10-PCS code. In the third row, the RES_VAL variable is equal to “J” which denotes an ICD-10-PCS code and the CODE_VAL variable is equal to 0KQM0ZZ, which indicates the type of delivery. In addition, notice how the M_ELEMNT variable (N) shows the third row of data as data that determines whether this individual qualifies for the numerator.

Sample Individual #2: Denominator (Slide 23):
First, for this example, the Department assumes this is an individual attributed to your hospital and is nulliparous. Sample individual #1 has marked this in the Standard Reporting Template. Next, we ensure that this individual has delivered a live term singleton newborn in vertex presentation and that the gestational age is great than or equal to 37. This can be found by looking at the codes from Table M02_01 and Table M02_02. This individual has an ICD-10 Code of 082, meaning they have delivered a live term singleton newborn in vertex presentation and thus can be included in the denominator. When the gestational age is checked, a hospital will find that the individual’s gestational weeks ICD-10 code is Z3A39, meaning the newborn is at 39 gestational weeks. They can thus be included in the denominator. Before moving on, a hospital must check for exclusions in Table M02_04. This individual does not have an exclusionary diagnosis code, does not have a gestational age less 37 weeks, is not aged less than 8 or more than 65 years old, or does not have a length of stay greater than 120 days. Given that they do not meet any of the exclusionary criteria, the individual is included in the denominator.

Sample Individual #2: Numerator (Slide 24):
Now a hospital must determine if sample individual #1 will be counted in the numerator. A hospital should see if the individual from the attributed population had an ICD-10-PCS Procedure Code for a Cesarean delivery. This can be checked in Table M02_03. When this table is consulted, a hospital will find that the individual did not have an ICD-10-PCS Procedure Code for a Cesarean delivery – OKQM0ZZ. Performance has not been met for this individual because they did not have an eligible procedure code for a Cesarean delivery.
Sample Individual #3 (Slide 25):
Finally, DOH will review sample individual number 3.

Sample Individual #3: Profile (Slide 26):
The third example is a 41-year-old female with an encounter date on October 15, 2020, as shown by the M_DOB variable and the SVC_DT variable. Please see Figure 3 for an example of how this data might be recorded using the standard reporting template.

The only row of data notes that the individual had a twin pregnancy with an unspecified number of placenta and a number of amniotic sacs in the third trimester. The individual’s ICD-10-PCS code is missing, and this means that the individual did not deliver via Cesarean section. The RES_VAL variable is equal to “I” which denotes an ICD-10-CM code and the CODE_VAL variable is equal to 030003, which indicates the type of pregnancy the individual had.

Sample Individual #3: Denominator (Slide 27):
First, DOH acknowledges the assumption that this individual has been attributed to the hospital and is nulliparous. Next, a hospital ensure that this individual has delivered a live term singleton newborn in vertex presentation (Table M02_01), their gestational age is greater than 37 weeks (Table M02_02), and that there are no exclusions (Table M02_04). This individual’s ICD-10-CM Code is 030003, which means they experienced a twin pregnancy with an unspecified number of placenta and unspecified number of amniotic sacs in their third trimester. This is an exclusionary code, and, therefore, the individual is excluded from the denominator.

How to Calculate Performance (Slide 28):
The Department hopes the previous sample individual profiles help increase understanding in the data elements necessary to determine whether an individual meets the measure criteria. Now, the Department will calculate the hospital’s overall performance based a cohort of 30 individuals who fall into the eligible population and numerator compliant population. These individuals are separate from the individual profiles presented on previous slides.

Calculating Performance: Subgroups (Slide 29):
This is a sample population of individuals divided into subgroups. There are 30 individuals in the starting population who were attributed to the hospital for the Maternal Health measures. There are 2 individuals within this population with known exclusions. There is 1 individual who had an ICD-10 PCS Principal Code, 1 individual who had another procedure code for a Cesarean Delivery, and 26 individuals who did not have an ICD-10 principal code.

Calculating Performance: Denominator (Slide 30):
The eligible population for M2 is the denominator. To find the value of the denominator, a hospital should subtract the exclusions from the starting attributed population. So, in the sample population, 30 individuals minus 2 individuals with exclusionary codes is 28 individuals in the eligible population.

Calculating Performance: Numerator (Slide 31):
The numerator compliant population for M2 becomes the numerator. To find the value of the numerator, a hospital should add the individuals with an ICD-10 PCS Principal Code and those with another procedure
code for a Cesarean Delivery. These subgroups appear here in the green cells. So, in the sample population, 1 individual plus 1 individual is 2 individuals in the numerator compliant population.

Calculating Performance: Percentage (Slide 31):
After a hospital has identified the eligible population and the numerator compliant population, it can calculate the hospital’s performance on M2 as a rate. 2 individuals who are numerator compliant divided by 28 individuals who are in our eligible population multiplied by 1000 equals 71.4 births/1,000 deliveries, which is above the statewide benchmark.

Conclusion (Slide 33)
This concludes DOH’s overview of QIP-NJ’s Maternal Health Measure 2, PC-02 Cesarean Birth.

More Information (Slide 34)
This final slide provides information and resources to aide QIP-NJ participating hospitals in the data submission process. If you have additional questions that were not covered in this presentation, please email the QIP-NJ team at QIP-NJ@pcgus.com. Thank you.