

WSHA Maternal Data Center (WSHA-MDC) Steps for First-Time Participants

Thank you for participating in the WSHA Maternal Data Center (MDC). The WSHA-MDC is being implemented by the Washington State Hospital Association (WSHA) with technical operations provided by the California Maternal Quality Care Collaborative (CMQCC).

This guide provides detailed steps for first-time participants. The MDC “Support” section includes many topic-specific User Guides.

Questions or Comments

For technical questions, please contact CMQCC’s Anne Castles at 626-639-3044 or safedeliveries@cmqcc.org.

Before you Start: A Note on MDC Security Protocols

The MDC is a secure online tool that supports hospital quality improvement activities. A key feature is the ability to view patient level data. To protect these data, the MDC employs a system called two-factor authentication.

- When logging into the MDC at <https://safedeliveries.org>, all users submit a personal login name and password that they created during the registration process.
- Users that attempt to access a screen with *individual-level data* will be asked to undergo a *second* security gate. Specifically, you will be prompted to receive a second temporary pin number through phone numbers that you entered during the registration process. Once the pin is entered, users are transported to the screen of interest.
- Please note that if hospital user passwords are lost, ONLY hospital “administrators” can re-set passwords for their hospital users; CMQCC staff are unable to do so given the MDC’s security barriers.

1. Creating the Discharge and Clinical Files

- Please consult the detailed data specifications available from CMQCC.
- There are three required “core” files: a Patient Discharge File, a Maternal Clinical File and a Newborn Clinical File. All files must be in CSV format and use the MDC-designated column headers.
- Target file submission on a monthly basis 45 days after the close of the reporting period (e.g. January 1-31 records submitted on March 15th). Submitting earlier risks incomplete data for the month.
- Include all newborn and maternal records that represent the delivery hospitalization, not antepartum or postpartum stays.
- The Safe Deliveries Collaborative recommends retrospective data back to January 2013. If you wish to upload additional retrospective data, the MDC can take data back to January 2011.

2. OPTIONAL Supplemental Data File

Your hospital has the option of submitting additional supplemental CSV data files derived from internal systems (e.g. EMR, core measure vendor system). The supplemental files might be used to:

- Replace erroneous data already in the MDC system from your required file submissions
- Add data for records that are missing values (e.g. for Gestational Age, Parity or Apgar Score)
- Pre-populate the “chart-review” data elements (e.g. labor, SROM or Prior Uterine Surgery) in the MDC system.

The specifications for the optional supplemental data file can be found in the document *Maternal Data Center Supplemental Data Submissions*. Please contact Anne Castles to learn more.

3. Registering with the MDC Prior to the First Data Submission

Identify a Primary Administrator

- Appoint a single individual at the hospital to serve as the “Primary Administrator”. This person will:
 - Authorize other hospital users to access the Maternal Data Center (MDC) system
 - Print out the encryption key for safekeeping
 - Re-set passwords in the event other hospital users lose their passwords
- When the hospital is ready to submit their first data file, notify CMQCC regarding:
 - the day you plan to submit the file, and
 - the name, e-mail address, phone number and title for the designated “Primary Administrator” and the “Primary IT Contact” (the individual programming the file) for your hospital.
 - CMQCC staff can be reached at safedeliveries@cmqcc.org or 626-639-3044.

Registration

The designated hospital user will receive an e-mail invitation from “safedeliveries@cmqcc.org”. If you will have access to multiple hospitals’ accounts, you’ll receive an e-mail invitation for each hospital participating in the MDC.

- Click on the link included in the invitation e-mail.

From: safedeliveries@cmqcc.org
To: ksmith@hospital.net
Subject: Maternal Data Center Invitation for Springfield General Hospital

Hello Kay Smith,

Anne Castles has invited you to access the CMQCC Maternal Data Center for Springfield General Hospital. You have been designated a Hospital “Administrator”. To register for the MDC web application, please:

[Accept Invitation](#)



- Your login name will automatically fill in as the first part of your e-mail address, but you can also change it here.

If you are serving as the contact for multiple hospitals you will need to choose a unique login name for each facility (e.g. Name+CV for Cherry Valley Hospital; Name+SP for Saint Peter’s Hospital).

- Create a password for yourself
Please take special care to document and store your personal password. The security features of the online tool require hospital administrators to re-set passwords.

Enter phone numbers for yourself—to be used for providing you with a pin number when accessing patient-level data. You can add as many phone numbers as you like (e.g. for office, home and cell). *These phone numbers are part of the MDC security protocols: each time you attempt to access individual-level data, MDC will transmit a computer-generated pin number through a call or text to your registered phone number.*

An additional option for receiving the pin number is to download the smartphone app Google Authenticator; the app does not require a cell connection.

- When you’re done, click “Save and Log In”

MATERNAL DATA CENTER REGISTRATION

Email* john.doe@example.org

Login* john.doe

First Name* John

Last Name* Doe

Password* *****
must be at least 8 characters long and contain a lowercase letter, an uppercase letter, and a number

Password Confirmation* *****

Phone numbers*
Each time you log in, you will select one of your listed phone numbers; the Data Center will call (or text) the selected number to transmit a temporary PIN that is also required for accessing the system.

Label* Home

Type* Landline

Number* (415) 888-1235

Remove this phone number

Add another phone number

Save and Log In

If you are the Primary Administrator (the first to register for your hospital), you will also:

- Print out the encryption key and **place in a secure location and/or make copies for trusted colleagues.**

The encryption key is the master password for your hospital. It is essential for retrieving your hospital's data in the event all users lose their passwords.



- Click on the green link “manage users for your hospital” to authorize additional staff to access the MDC site for your hospital.

- Enter the name and e-mail address for each user you are authorizing to have access to the MDC tool.
- For “MDC Role”, use the drop down menu to designate the role of each user given the activities you are authorizing them to perform. The roles are defined in the table below.

CMQCC strongly recommends that you designate at least one additional person as “Administrator” for your hospital. In the event other users lose their passwords, there will be two administrators that can re-set passwords.

- For “Maximum Provider Detail”, use the drop down menu to designate how users will be able to view provider–level statistics: by “Name”, by “License number” or “Blinded”.

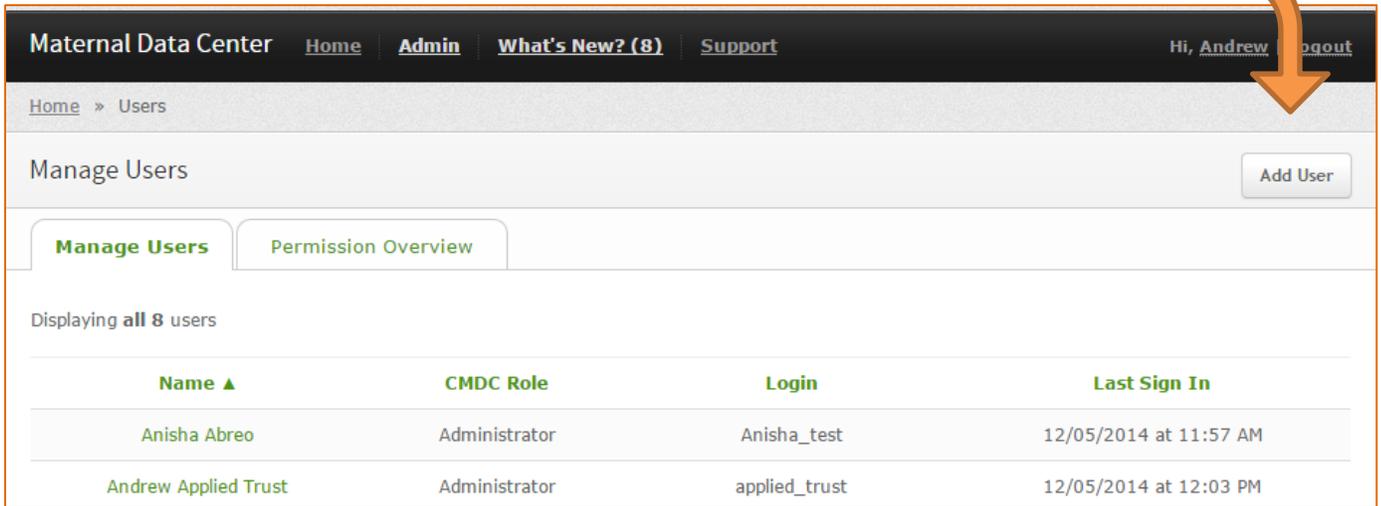
Administrators will always be able to toggle across all three levels; in designating view-levels for other users, the user will be able to see the category you select plus any of the “less sensitive” views (e.g. if you designate “License Number” for a user, they will be able to toggle between both the “license number” and “blinded” views.

- Click “Create User” to complete the process.

Roles and Associated Functions

Authorized to:	Roles			
	Administrator	Data-Entry	Read-Only Aggregate and Patient Data	Read-Only Aggregate Data Only
Add additional users for hospital and reset passwords	✓			
Submit and edit patient-level data	✓	✓		
View patient-level data	✓	✓	✓	
View hospital-level performance metrics	✓	✓	✓	✓

- After you create a user, the screen below will appear. The new “user” will automatically be sent an e-mail invitation from safedeliveries@cmqcc.org with their own personal registration link.
- You do not need to “resend the invitation” unless the user loses the first automated e-mail. However, you may want to notify your colleague that the invitation e-mail is on its way.
- To add additional users, click the Add User link in the upper right corner.



The screenshot shows the 'Maternal Data Center' Admin interface. The top navigation bar includes 'Home', 'Admin', 'What's New? (8)', and 'Support'. The user is logged in as 'Andrew' and can click 'Logout'. The main content area is titled 'Manage Users' and features an 'Add User' button in the top right. Below this, there are two tabs: 'Manage Users' (selected) and 'Permission Overview'. The page indicates 'Displaying all 8 users' and contains a table with the following data:

Name ▲	CMDC Role	Login	Last Sign In
Anisha Abreo	Administrator	Anisha_test	12/05/2014 at 11:57 AM
Andrew Applied Trust	Administrator	applied_trust	12/05/2014 at 12:03 PM

- Your registration is complete. From now on, log in directly at <https://safedeliveries.org>

4. Uploading Data Files

After registering, the staff responsible for the file submission will upload the file directly into the secure Maternal Data Center (MDC) system. If this is your first file submission to the MDC, you may wish to start with a test file including at least three months of data.

If you submit the file immediately after registration, you will already be in the MDC system and can proceed to submitting your data. If you access the system after your initial registration, go to:

<https://www.safedeliveries.org>

- Enter your login name and personal password.

- From the Home page for your hospital, click on “Data Entry Status”

- Follow the steps 1-3 (per screen shots below). Note that Step 4 (completing chart review for “Action Needed” measures) is currently OPTIONAL!

	October '14	November '14	December '14	January '15	February '15
Discharge Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete	
Maternal Core Clinical Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete	
Newborn Core Clinical Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete	
Elective Delivery	✓ Complete	✓ Complete	✓ Complete	⚠ Action Needed	

Data submissions and access to individual-level data are controlled by two-factor authentication. In order to submit a data file, you will receive a prompt to receive a second temporary pin.

- The phone numbers on this screen are those you entered when you registered. (You can add others if you wish)
- Click “Call” or “Text” to select the phone number at which you wish to receive the computer-generated Pin Number. You may also receive the pin via a mobile app “Google Authenticator”. Instructions for downloading the app can be found on your user profile page.
- Within five seconds, you will receive a call or text.

MATERNAL DATA CENTER REQUEST PIN

Cell (626) 260-4532	Call Text
Home (626) 441-2135	Call
Office (626) 639-3044	Call

- Input the temporary pin provided via the call or text and click “Submit”.
- The screen you wish to access will then appear. The temporary pin will last throughout the session.

WSHA MDC

Temporary PIN

Submit Cancel

- Select the beginning and end dates of the data file you plan to upload. Please make sure the dates you choose are correct.
- Select “Choose File” to find the file to be uploaded from your system.
- Click Upload. Once the file is accepted, the word “Complete” will display within the Data bar.
- After uploading the Discharge File, continue on to Steps 2 and 3 to upload the Maternal and Newborn Clinical files.
- If errors are found, you will receive an error message—see Section 5 next!

Upload Discharge Data

Starts on* 08/01/2014 ▾

Ends on* 08/31/2014 ▾

Uploaded File* Choose File No file chosen

Upload Cancel

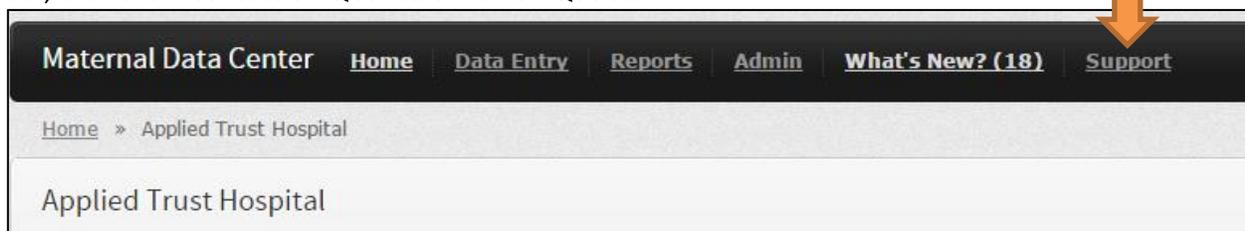
5. File Error Checks

Error Messages

Upon submission, the MDC will conduct some basic data quality checks to evaluate the file for completeness. Files will be rejected if they do not meet the following base requirements:

1. All records must include values in the following fields:
 - Facility ID
 - Principal Diagnosis
 - Date of Birth
 - Admission Date
 - Discharge Date
2. The facility ID must match the ID that CMQCC has on record (we can easily change the ID in our system if needed).
3. The file must include records that represent discharges in both the first part of the month and the last part of the month.
4. The column headers denoting specific data elements must match the CMQCC-designated column headers (per the MDC Data Specifications). If the error message suggests very few column headers match, it may be because you accidentally uploaded a “supplemental data file” as a “patient discharge data file” (or vice versa).
5. For CSV file formats, ICD9 codes should contain periods (after the third digit for diagnoses, after the second digit for procedure codes); if ICD9 codes do not contain periods, the MDC will validate that the file as a whole contains leading zeros (this detects if the file has been saved from Excel—which typically causes leading zeros to be lost and thus renders ICD9 codes ambiguous).
6. ICD9 codes must be valid (i.e. present in the CMS list of all codes).
7. A case cannot meet both the newborn and maternal admission criteria (e.g. the MDC validates that a newborn doesn't have a Cesarean Section procedure code).
8. Race/ethnicity codes must be valid (but blank values are allowed).
9. All fields with dates (admit/discharge/dob/procedure dates) must be recognizable as dates
10. At least 10% of maternal clinical cases have Parity=0
11. Gestational age cannot be zero (0)

If you have any issues with interpreting the error message, you may click the Support link in the upper black bar, then click “Contact CMQCC” to e-mail CMQCC staff.



Duplicate Records in the File

Sometimes hospital files will include “duplicate” records (i.e. two records that have the same Case ID and both include a delivery-related ICD-9 code). The most common cause of this is when an *antepartum* or *postpartum* admission has *erroneously* been assigned an ICD-9 code that reflects a delivery-related hospitalization.

If there are any duplicates in your file, you will see a list of those cases, and will be asked to identify the correct record prior to your file being accepted. Simply identify the correct delivery-related record by choosing the radio button for that record, and click “Keep these cases”.

Resolve Duplicate Discharge Records MRN

Duplicate Records Found
We found duplicate records with the same MRN in your submission—and both records include ICD-9 codes indicating a delivery-related hospitalization. Often, one of the records is actually a postpartum or antepartum stay (but incorrectly coded with a birth-related ICD-9 code).
You will need to identify the correct birth-related record before the file can be processed:

- Review both records (you can click on each record number to see the full set of information)
- Identify the record that represents the birth admission
- Click the radio button to select that record
- Once done, click “Keep these cases”

Record Number	Date of Birth	Admitted On	Discharged On	Diagnoses	Procedures	Correct Record
123456	10/04/1963	06/01/2013	06/03/2013	V27.0, 666.22	69.52	<input type="radio"/>
123456	10/04/1963	07/01/2013	07/03/2013	V27.0, 666.22	69.52	<input checked="" type="radio"/>

Record Number	Date of Birth	Admitted On	Discharged On	Diagnoses	Procedures	Correct Record
654321	10/04/1954	06/01/2013	06/03/2013	V27.0, 666.22	69.52	<input type="radio"/>
654321	10/04/1954	07/01/2013	07/03/2013	V27.0, 666.22	69.52	<input type="radio"/>

After the Data Submission is Accepted

Once all three files are accepted, each data bar will display as “Complete” for the reporting periods you submitted and the MDC will automatically link the three files together.

	September '14	October '14	November '14	December '14
Discharge Data	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>
Maternal Core Clinical Data	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>
Newborn Core Clinical Data	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>

- Once the file is accepted, please check in three places to evaluate the completeness of your submission.
 - 1:** Click the “Linkage Summary” button to identify possible issues with missing cases.
 - 2&3:** For the month you just submitted, click the “Complete” label for both the “Maternal Core Clinical Data” and the “Newborn Core Clinical Data” to evaluate the completeness of each required data field. The MDC will tell you how many records were missing each of the required data elements.
 - Maternal File Required Fields: Gestational Age and Parity
 - Newborn File Required Fields: 5-minute APGAR, Birthweight and Maternal Record Number
- OPTIONAL:** If you want the MDC to calculate any *optional* measures (e.g. Elective Delivery) complete the chart review worksheet for that measure by clicking on “Action Needed”

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Data Status

Linkage Summary Upload Supplemental Data

Step 1 Upload Discharge Data

Step 2 Upload Core Maternal Clinical Data

Step 3 Upload Core Newborn Clinical Data

Step 4 Complete Chart Review Below

	December '13	January '14	February '14	March '14	April '14
Discharge Data	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	
Maternal Core Clinical Data	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	← 2
Newborn Core Clinical Data	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	← 3
Elective Delivery	✓ <u>Complete</u>	✓ <u>Complete</u>	✓ <u>Complete</u>	⚠ <u>Action Needed</u>	← Optional

- If this is your first file submission, please contact CMQCC staff at safedeliveries@cmqcc.org to notify them that the data upload is complete. CMQCC staff will further evaluate the file for completeness and then contact you to schedule a training session or delineate other next steps.

Correcting Data Errors

There are two types of data errors:

1. Cases are missing from the data submission—either because they were not included in the hospital’s file at all, or because the missing cases did not include one of the delivery-related ICD-9 codes that CMQCC uses to filter the cases. If cases are missing and the hospital can identify the missing cases, please take the following steps to include the cases:
 - Delete the data file originally submitted for the given reporting period.
 - Create and upload a new data file that includes all cases (with updated coding if necessary)
 - See the User Guide: *Deleting Data* for specific steps
2. Cases are included in the discharge data and the clinical files, but the data fields for some cases are erroneous or missing. In this scenario, hospitals can choose to:
 - Manually edit specific cases (see User Guide: *Making Manual Data Corrections*)
 - Submit a supplemental data file that overwrites the originally-submitted data for specific cases and specific fields. (See User Guide: *Supplemental Data File Specifications*)

6. Data Submissions for OPTIONAL Measures

Once the Discharge and Clinical Files have been linked by the MDC, hospital users will see additional measures listed on the Data Status screen denoted with “Action Needed”. These are OPTIONAL measures that require additional data IF your hospital wants to calculate them in the MDC.

There are two ways to add the additional data for these optional measures.

1. Manual Data Entry: Click on the “Action Needed” cell for the measure of interest. After performing the necessary abstraction, click on the appropriate check boxes for each case (See User Guide: *Chart Review for “Action Needed” Measures*)
2. Supplemental Data Specifications: You can make supplemental data submissions that will pre-populate the chart review boxes for many of the optional measures. See User Guide: *Supplemental Data File Specifications*)

	July '14	August '14	September '14	October '14
Birth Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete
Discharge Data	✓ Complete	✓ Complete	✓ Complete	✓ Complete
Data Linkage	✓ Complete	✓ Complete	✓ Complete	✓ Complete
Elective Delivery	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed
Antenatal Steroids	⚠ Action Needed	✓ Complete	✓ Complete	⚠ Action Needed
Bilirubin Screening	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed
DVT Prophylaxis	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed	⚠ Action Needed

7. Learning to Use the MDC

Once the hospital makes a full up-to-date file submission, CMQCC will work with the Primary Administrator at each hospital to schedule a 1.5 hour training session of the MDC (held via webinar) to review the hospital data and the tool's features for all hospital and/or system users.

The MDC also includes a Support section which includes numerous User Guides. You can also "Contact CMQCC" directly through the Support section.

The screenshot displays the Maternal Data Center (MDC) website interface. At the top, a black navigation bar contains the following links: [Home](#), [Data Entry](#), [Reports](#), [Admin](#), [What's New? \(18\)](#), and [Support](#). An orange arrow points to the [Support](#) link. Below the navigation bar, the breadcrumb trail shows [Home](#) > [Applied Trust Hospital](#). The main content area is titled "Applied Trust Hospital" and "CMDC Support". A "Contact CMQCC" button is located in the top right corner of the support section, with an orange arrow pointing to it. A green success message reads "Signed in successfully." Below this is a search bar labeled "Search Support Documents". A message states: "Not finding the information you need? Please Contact CMQCC and we'll get back to you." The support section is organized into three columns: "General User Guides", "Data Specifications", and "Provider-Level Section".

General User Guides	Data Specifications	Provider-Level Section
<ul style="list-style-type: none">• User Guide for View-Only Hospitals• User Guide for RPPC Users• Making Manual Data Corrections• User Guide for Active Track Hospitals• Detailed Registration and Data Submission Steps	<ul style="list-style-type: none">• Core Specifications: Patient Discharge Data• Cal-HEN Transfusion and Pre-eclampsia Measures: Supplemental Data Specifications to Auto Calculate Cal-HEN Measures• Supplemental Data File Specifications	<ul style="list-style-type: none">• Navigating the Provider-Level Reports• Correcting Provider IDs

8. Staying Up-to-Date on CMDC Features and Data Submission Requirements

The MDC's e-mail distribution list is based on all hospital staff that have registered in the Maternal Data Center. All registered users will receive notifications around the following:

- Quarterly user group meetings that are held to inform hospital users of new features and answer hospital questions. Doodle polls are used to ascertain the best dates for scheduling the meetings approximately one month in advance of the target meeting date.
- Any substantive changes in data specifications, data file submission protocols, or data entry protocols.

Hospital personnel denoted as the "Primary IT Contact" for each hospital will receive direct e-mails denoting any substantive changes in the MDC data specifications or data file submission protocols.

CMQCC also provides immediate updates on new features via the "What's New" section in the upper black bar. You'll see an enumeration of all new features since the last time you clicked on the "what's new link".

Checklist of Hospital MDC Action Items

Hospital Decision Item	Description	Complete?
Data File Decisions		
Identifying Cases for Inclusion in the Discharge Data File	Hospitals have the choice to submit <u>all</u> discharge data records (and the MDC will filter out the mother and newborn records once the file is submitted) – or — the hospital can filter the files on their side using the ICD-9 codes listed in Attachment A of the Data Specifications.	
Monthly Submissions	The Safe Deliveries Collaborative is recommending monthly submissions given the benefits of receiving monthly reports.	
Submission Schedule	CMQCC recommends waiting to pull and submit your discharge data file <u>at least</u> 45 days after the end of each reporting period. If coding is not complete for delivery discharges within 45 days, it is best to wait until it is complete (otherwise cases may be inadvertently excluded)	
Retrospective Data	The Safe Deliveries Collaborative recommends retrospective data back to January 2013. If you wish to upload additional retrospective data, the MDC can take data back to January 2011.	
Supplemental Data Files	Do you wish to submit any OPTIONAL data fields that you can download from EMRs or a core measure vendor system?	
Personnel Decisions		
Identify Primary Administrator	Provide CMQCC with the contact information for the Primary Administrator who will register the hospital prior to the first data submission	
Identify Primary IT Contact	Provide CMQCC with the contact information for the Primary IT Contact who is responsible for programming the data file submission.	
Identify File Uploader for the Hospital or System	For your internal planning: identify the hospital user who will upload the data files for your hospital?	
Identify Abstractor for OPTIONAL chart review	For your internal planning: If you plan on calculating any of the optional measures within the MDC, identify the user who will collect and enter the chart review information or submit supplemental data.	
Additional Hospital Users	Identify the hospital personnel whom your hospital's Primary Administrator will authorize to access the MDC and decide whether they will have Administrator, Data Entry, or Read-only status.	
Once the First File is Ready		
Registration	Once you are ready to submit your first file, let CMQCC know and we will initiate the hospital registration process with the Primary Administrator.	
Check your submission for completeness	Follow the steps on Page 9 to ensure your data is complete. Contact CMQC staff if you have any questions.	
First Data Submission	Notify CMQCC when you have completed your first data submission.	
Training Session	After making your first data submission, work with CMQCC to schedule your training session.	