

BORN Ontario:

BORN Information System Enhancements

Release Date: June 3rd, 2013

Presentation Date: May 28th, 2013

Release Overview

The BORN Information System will be updated on the evening of June 3rd, 2013. Changes will be done in the following areas:

- User interface changes
 - Landing page
 - Menu options: Data Quality, Acknowledgement, Batch Upload
 - Data submission acknowledgement
- Hospital encounters
- Hospital data quality reports



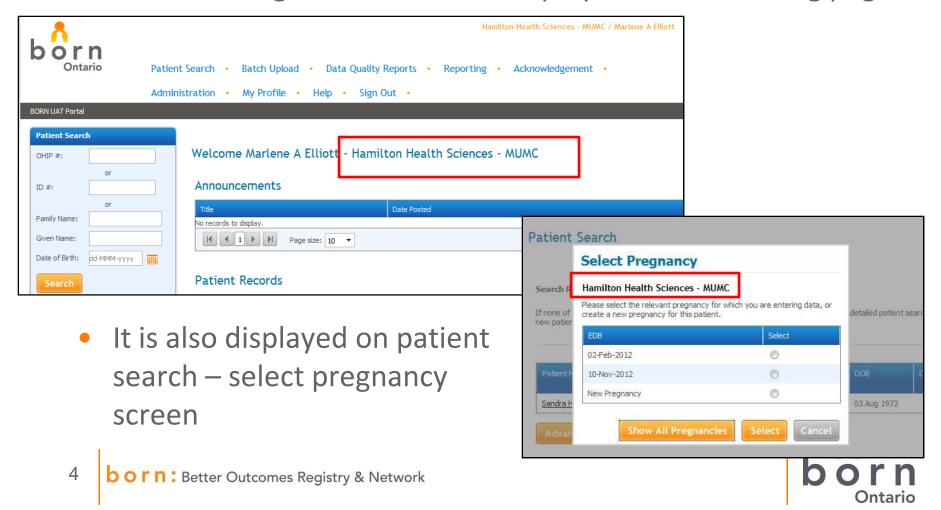
BORN Information System Enhancements

USER INTERFACE: LANDING PAGE



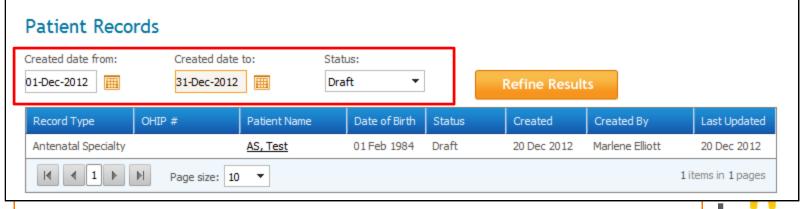
Landing Page – Organization

The user's organization is now displayed on the landing page



Landing Page – Patient Records

- The filter for the Patient Records and ART Patient Records is now saved for the duration of the user's login session
- If you follow the link to a particular patient and then return to the landing page, the most recent filter settings will still be in place



BORN Information System Enhancements

USER INTERFACE: MENU CHANGES



Menu Changes - Overview

To better support the operational processes, the following changes were made:

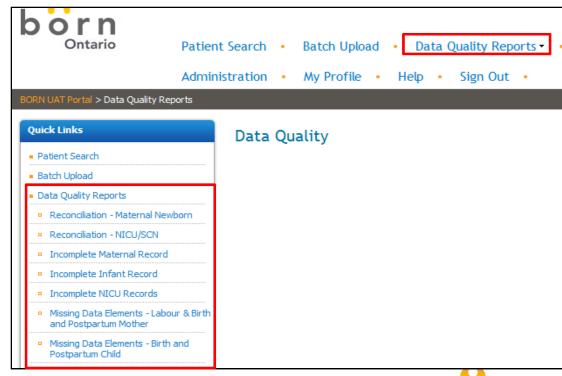
- New menu options added for Data Quality Reports and Acknowledgement
- Batch Upload and all related functionality (e.g., error correction) moved under single menu
- Order of menu items changed



Data Quality Reports Menu

- New menu option added for Data Quality Reports on top menu as well as on Quick Links menu on the left navigation bar
- Menu contains links to data quality reports related to organization (e.g., hospital, midwife, fertility clinic)

These reports continue to be available under Reporting – Administrative reports

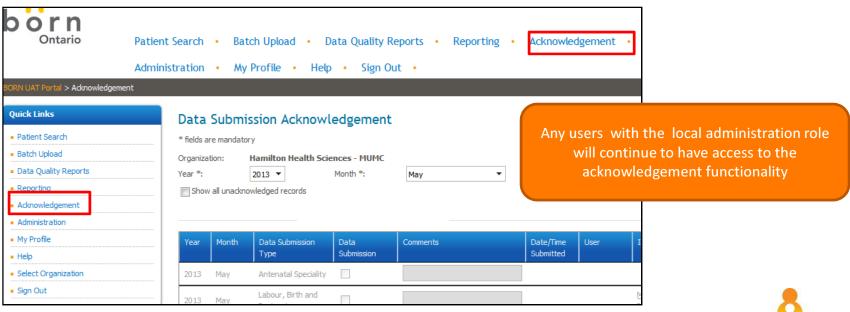






Acknowledgement Menu

- Data Submission Acknowledgement functionality moved from Administration menu to new Acknowledgement menu
- New user role created for 'Organization Data Acknowledgement'
 - The ability to do data submission acknowledgement can now be assigned to a user independently of the local administration role

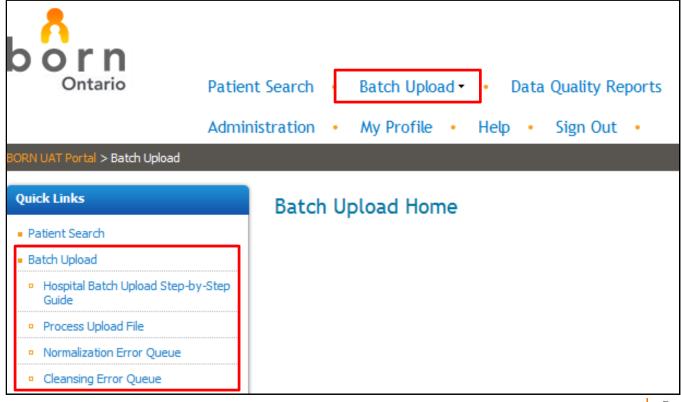






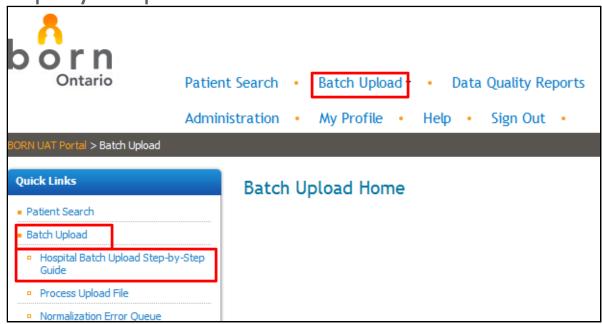
Batch Upload Menu

 Batch Upload functionality, Queue Management, and Normalization Errors moved under single Batch Upload menu





- New Step-by-Step guide added for hospital upload users. A CARTR Plus-specific document will be added in the future
- Users will be prompted to open or save the guide by selecting the Step-by-Step link





Previous Batch Upload screen moved to 'Process Upload File'





Additional changes

- New message appears after file successfully transferred via 'Add'
- Refresh button added to top of batch file list
- Pending statuses
 highlighted in red text

Additional changes to Process Upload screen

- New 'Reprocessed Errors' status
 - A file with normalization and/or cleansing errors originally has a status of 'Processed with Errors'
 - When all records from this file that had cleansing errors are resubmitted in a later upload file, this status will change to 'Reprocessed Errors'

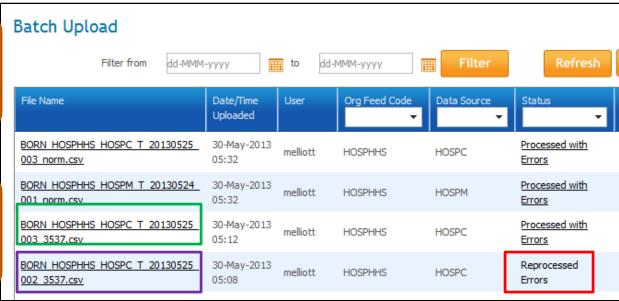
Example:

Records that originally had cleansing errors in the purple file were resubmitted in the green file. The purple file is now 'Reprocessed Errors'

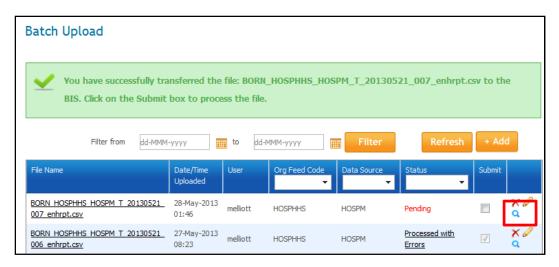
Note:

The 'Reprocessed Errors' status only applies to cleansing errors.

Normalization errors still need to be reprocessed and removed from the normalization queue.



- New Batch Upload Details report provides additional information to users on processed batch file.
 - Run from Q on Process Upload file screen
 - Replaces Batch Upload Error report. The error details are now found in the 'Errors detail' tab in the Batch Upload Details report





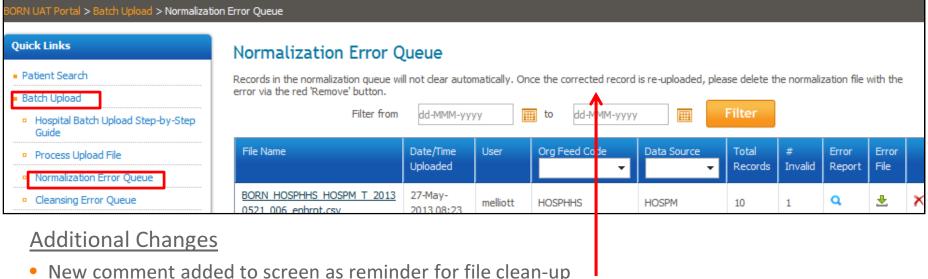
Batch Upload Detail report contains following tabs:

- Processing summary
 - # of records processed
 - # of records in error, match or link queue
 - # and type of encounters created
- Errors details
 - Details on normalization, initial cleansing, and UI validation errors
 - Chart # and visit id identifiers added for normalization errors
- born **Batch Upload Details Report** Organization: Hamilton Health Sciences - MUMC File: BORN_HOSPHHS_HOSPM_T_20130523_001_demo.csv Processed on: 28-May-2013 3:04 AM Record Outcome # of records Description # of records in upload file # of records in hospital upload file Patient demographics and submitted encounter(s) created or updat # of records processed with no upload errors # of records in normalization queue Record rejected. No patient or encounters created. # of records in queue management Initial Cleansing Patient demographics created. No encounters created UI Validation Patient demographics and draft encounter(s) created or updated. # of AG encounters Submitted or draft AG encounters created or updated # of Labour encounters Submitted or draft labour encounters created or updated. # of Birth Mother encounters Submitted or draft birth mother encounters created or updated. # of Postpartum Mother encounters Submitted or draft postpartum encounters created or updated # of records in Match Queue # of maternal patients in Match Queue # of records in Link Queue # of maternal patients in Link Queue

- Encounters not created
 - Details on records where not all expected encounters created
- Match queue and Link queue
 - Details on records in match and link queue
- Process log
 - Summary status of all processed records. For information purposes only



Normalization Error Queue screen remains in the same location



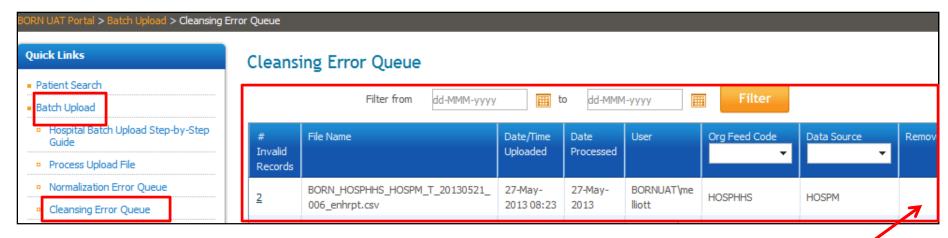
New comment added to screen as reminder for the clean-up

New normalization identifiers added to Normalization Error Report and the Error tab in the

Note to Hospital upload users:
A clean-up exercise of old normalization error files is underway. Please contact Kurian Chandy (kchandy@bornontario.ca) for more details.



Previous Queue Management screen moved to 'Cleansing Error Queue'



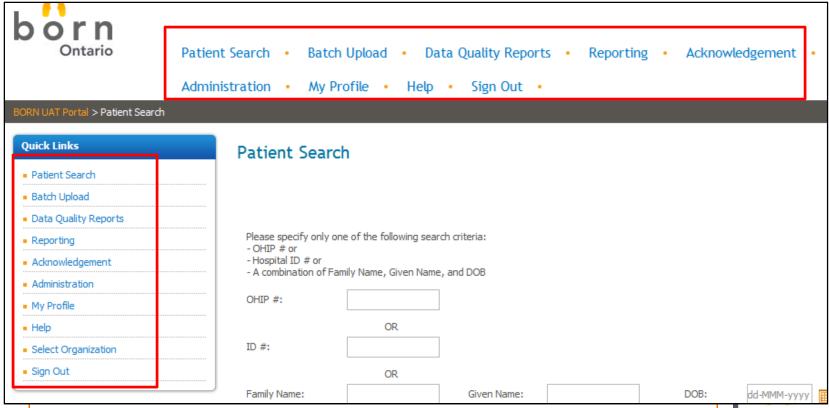
Additional Change

Batch upload users will no longer have the ability to delete error files from the Cleansing Error Queue

- Cleansing errors are automatically removed once errors are corrected or when the patient's record is uploaded in a more recent upload file
- If an error file needs to be deleted (e.g., if the patient's record should not have been included in the upload), contact the BORN help desk (helpdesk@bornontario.ca) with the filename in question and request deletion

Menu Order

 The order of menu options on the top menu and the Quick Links bar has been updated



BORN Information System Enhancements

DATA ACKNOWLEDGEMENT



Data Acknowledgement

- Support for acknowledging multiple months
 - If a user selects multiple months to acknowledge and acknowledgement is successful for some months but not others:
 - Green success messages will appear for the acknowledged months and acknowledgement completed for those specific months
 - Red error messages for the failed months will appear as per existing functionality and acknowledgement will not completed for those specific months





BORN Information System Enhancements

HOSPITAL ENCOUNTERS



Encounters – Comments field

 All hospital and midwifery encounters have been updated to include a comments field

Comments:	

Note: Comments fields are only available through the user interface and not via the upload . Upload users can choose to enter comments manually through the data entry screens



Encounter Validation Rule Changes

Impacted Encounters	Current Rule	Revised Rule
Birth Mother	Cannot be > than 6 hours from Time Fully Dilated to Time Started Pushing	Cannot be > than 24 hours from Time Fully Dilated to Time Started Pushing
Birth Mother	Cannot be > than 6 hours from Time Started Pushing to Time of Birth	Cannot be > than 24 hours from Time Started Pushing to Time of Birth
Birth Mother	Difference between Time Fully Dilated and time of birth cannot be > greater than 12 hours	Remove rule
Birth Mother	If Maternal - Suspected chorioamnionitis is selected in All indications for C/S, then Labour and birth complication must include fever >38.5	Remove rule
Birth Child	APGAR values of 0,0,0 are not allowed for a live birth	APGAR values of 0,0,0 are allowed for a live birth if the newborn resuscitation value is not set to none.



Maternal Outcomes – Batch Upload

- Maternal Outcome data management rules between encounters
 - Currently, the batch upload maps the maternal outcome to all encounters. For example, if a patient has a maternal outcome of transfer to ICU/CCU and has an associated Labour, Birth Mother, and Postpartum Mother encounter then all three encounters show transfer to ICU/CCU
 - Change made so that maternal outcome field only mapped to final encounter (e.g., postpartum). Any prior encounters (e.g., labour, birth mother) will be set to no transfer.

Incomplete Maternal Record report "Summary of duplicate disposition discrepancies" tab will now be applicable for uploaders on a go-forward basis



BORN Information System Enhancements

HOSPITAL DATA QUALITY REPORTS

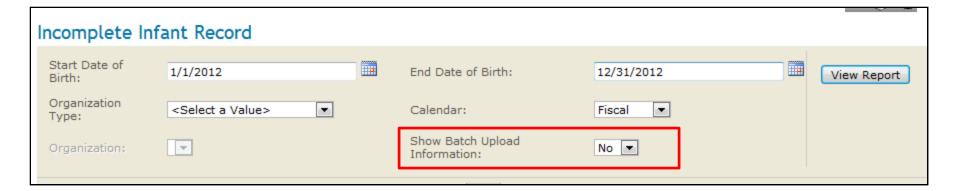


Incomplete Record Reports

- The Incomplete Maternal Record report and Incomplete Child Record report have been updated with two changes:
 - New filter option: 'Show Batch Upload Information'
 - Summary and details of patients in Match Queue



 A new filter option added to 'Show Batch Upload Information'. The filter is defaulted to 'No'



- If set to 'No, reports will function as they do today
- If set to 'Yes', additional batch upload columns will appear on the detail tabs related to the source upload files and users that last created or updated the encounters

- Additional Batch Upload columns
 - On the detail tabs in the reports, information is now provided on the source of <u>each</u> encounter:
 - Batch file that created/updated encounter
 - Date and time the batch file was processed
 - Date and time the encounter was last updated
 - This will be different than the batch file date/time if the encounter was updated manually via the user interface or cleansing queue / queue management edit functionality

 Columns repeated for each
 - User ID of person who last updated the encounter

105-Mar-2012 16:35 104-Feb-2013 15:26 IBORN\fguan 1 105-Mar-2012 16:35	• User ID Or	herzon w	110 last u	puateu ti	le elicoulitei	encounter
105-Mar-2012 16:35 104-Feb-2013 15:26 IBORN\fguan 1 105-Mar-2012 16:35	Labour Batch File	processed	Updated		Birth Batch File	processed
120305_004.csv 0305_004.csv Th	BORN_HOSPTEST_HOSPM_T_20 120305_004.csv	05-Mar-2012 16:35	04-Feb-2013 15:26	BORN\fquan	BORN_HOSPPSFD_HOSPM_T_2012 0305_004.csv	05-Mar-2012 16:35

Ontario

Match Queue

- The match queue only relates to records being entered via the batch upload functionality
- Patients are put in match queue if the incoming patient record has sufficient demographics information in common with an existing BORN patient to be a potential match. Manual intervention to resolve the match will be performed by a BORN agent to determine if this a new patient or a match to an existing patient



 On the summary tab, counts of the patients in the match queue are now displayed

Admissi	ons		
Admission date	# of women admitted (upload sites only)	# of women in match queue	Total # of dispositions
2010-2011	50	<u>0</u>	1

 A new tab has been added providing details on the patients in the match queue

Match queue details								
Organization	Line # in file	Patient type	Patient ID #	Patient given	Patient family	Date of birth	OHIP	Notes
				name	name			
Test	1	Mother	Chart #\ABCCH1	Sandra	Tes	3-Aug-1973	1111111111	
Data source	BORN Ontario					•		
Notes			f the queues at the tim he MaternalChartNumb	•	lewbornChartNum ii			

Maternal Newborn Reconciliation Report

 A summary page was added to the Maternal Newborn Reconciliation report

born	Maternal Newborn Reconciliation Report							
Maternal Newborn Reconciliation summary Test Hospital from 01-Jan-2013 to 31-Jan-2013								
Admission date	# of maternal admissions	# of maternal dispositions	# of Birth Mother encounters	(from the Birth	# of Birth Mother encounters where fetuses is unknown	(from the Birth	# of stillbirths (from the Birth Child encounter)	# of neonatal transfer/discharge
2012-2013	5	6	4	6	1	4	1	20

- # maternal admissions: # of maternal patients who have a labour, birth, or postpartum encounter with an admission date in the provided date range
- # of maternal dispositions: # of maternal patients who have a labour, birth, or postpartum encounter with the disposition date from the final maternal outcome in the provided date range.

Counts match existing Maternal Admissions tab

Counts match existing Maternal Dispositions tab



born Ontario	Maternal Newborn Reconciliation Report							
Maternal Newborn Reconciliation summary Test Hospital from 01-Jan-2013 to 31-Jan-2013								
Admission date	# of maternal admissions	# of maternal dispositions	# of Birth Mother encounters	(from the Birth	# of Birth Mother encounters where fetuses is unknown	(from the Birth	# of stillbirths (from the Birth Child encounter)	# of neonatal transfer/discharge
2012-2013	5	6	4	6	1	4	1	20

of Birth Mother encounters: # of maternal patients
 who have a birth mother encounter with a newborn date of
 birth in the provided date range

Counts match new List of Birth(s) (Birth Mother) tab

- Total # of fetuses (from the Birth Mother encounter):
 # of total fetuses from the birth mother encounters with a newborn date of birth in the provided date range
- Counts match sum of # of fetuses field in new List of Birth(s) (Birth Mother) tab
- # of Birth Mother encounters where # of fetuses is unknown: # of maternal patients who have a birth mother encounter with a newborn date of birth in provided date range and # of fetuses was unknown

Counts match # of rows where of fetuses = unknown in new List of Birth(s) (Birth Mother) tab



b or n Ontario	Maternal Newborn Reconciliation Report							
Maternal Newborn Reconciliation summary Test Hospital from 01-Jan-2013 to 31-Jan-2013								
Admission date	# of maternal admissions	(from the Birth encounters where (from the Birth the Birth Child					# of neonatal transfer/discharge	
2012-2013	5	6	4	6	1	4	1	20

- # of live births (from the Birth Child encounter): # of birth child encounters where live birth in the provided date range
- # of stillbirths (from the Birth Child encounter): # of birth child encounters where stillbirth (>= 20 weeks) in the provided date range
- # of newborn discharges/transfers: # of neonatal dispositions for infants with a birth child encounter in that organization where the disposition date in the given date range
 - The Disposition is based on the Neonatal transfer to NICU/SCN from the birth child encounter and the Neonatal Transfer/Discharge from the postpartum child encounter.

Counts of live births + stillbirths match existing List of Births tab (Birth Child)

Counts match
existing
neonatal
transfer
discharge tab



- New detail tab added: List of birth(s) (Birth Mother)
 - Provides a summary of all birth mother encounters (in a given place and time) with a newborn date of birth within the provided date range
- Additional columns added to all detail tabs
 - Tabs related to maternal patients contain the following fields:
 - Maternal chart number
 - Maternal hospital visit ID
 - Health card number
 - Given name
 - Family name
 - Maternal admission date
 - Maternal admission time
 - # of fetuses

- Newborn date of birth
- Newborn time of birth
- Pregnancy outcome(s)
- Maternal disposition
- Maternal disposition date
- Maternal disposition time
- Infant chart number
- Infant hospital visit ID



- Additional columns added to all detail tabs
 - Tabs related to infants contain the following fields:
 - Infant chart number
 - Infant hospital visit ID
 - Health card number
 - Given name
 - Family name
 - Date of birth
 - Time of birth
 - Birth outcome

- GA at birth
- Neonatal disposition
- Neonatal disposition date
- Neonatal disposition time
- Birth Location
- Birth Hospital
- Maternal chart number
- Maternal hospital visit ID



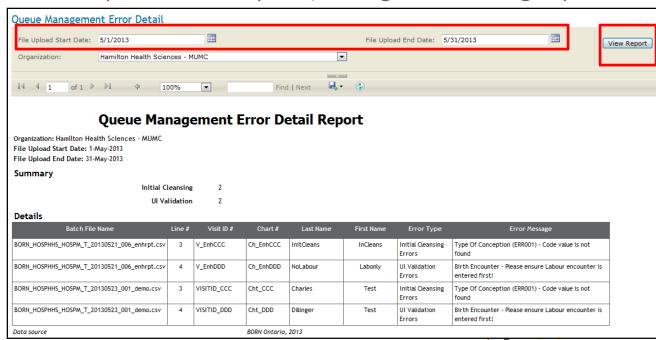
Queue Management Error Detail Report

- A new Queue Management Error Detail report has been created to list all errors currently in the Cleansing Error Queue
- Report is located under:

Reporting - Administrative Reports - Batch Upload, Linking and Matching Reports

Enter Start and End date range and view report

A list of all current cleansing queue errors will be displayed with their associated batch file





Future Enhancement

Change	Goal / ETA
 Hospital upload preview functionality Ability to process upload file in preview mode to generate list of associated errors. No patients or encounters would be created in preview mode. Several sites run daily, weekly, and monthly data extracts to find data quality errors up front before the patient charts close in their EMR. Patient and encounters are uploaded several times resulting in a large number of files with added complexity around file and error housekeeping Once preview functionality in place, any files with 	The preview mode enables sites to view all their errors without having to create the patients and encounters in BIS until they are happy with the quality of their data. This will reduce the amount of processing in the BIS. Once an entire file is rejected due to normalization errors, removes need for continual clean-up of normalization
normalization errors will be rejected. A preview can still be run to generate a list of errors for all records in file.	error queue. ETA: End of July



Questions?



Please contact your BORN Coordinator if you have any questions

www.BORNOntario.ca info@BORNOntario.ca

