The Indiana Family and Social Services Administration

Data Forum
Data Driven Review:
Medication Errors - Lessons Learned thus Far

November 15, 2017

Shelly Thomas
Assistant Director, Bureau of Quality Improvement Services (BQIS)

Purpose

The purpose of this webinar is to provide

Bureau of Developmental Disabilities Services (BDDS)

Providers an overview of the data and 'Lessons

Learned' from the completed reviews on Medication

Errors in the Data Driven Review (DDR) Process,

a quality improvement initiative developed by

the Bureau of Quality Improvement Services (BQIS).

Agenda

Today's Topics:

I.   Data Drives the Process

II.   Data Analysis

III. Results of Completed Reviews

IV.   Conclusion

V.   Questions/Discussion

VI.   Contact Information

Agenda

I. Data Drives the Process

❖ **DDR Topic Selection**

❖ **Provider Selection for Participation**

❖ **Approach**

DDR Topic Selection

- ➢ **2015-2016 – Clean Incident Report data**
  - **Reportable vs. Non-reportable incidents**

- ➢ **BQIS reviews incident data quarterly**

- ➢ **BQIS identifies systemic areas of weakness based on reportable incidents**

- ➢ **BQIS selects Data Driven Review topic based on greatest issues/weaknesses**

Data Drives the Process

Rank	Quarter 1	Quarter 2	Quarter 3	Quarter 4
	2015 Incident Report Data – Top 20 Incident Report Types			
1	Medical Condition, Change in/Decline	Medical Condition, Change in/Decline	Medical Condition, Change in/Decline	Medical Condition, Change in/Decline
2	Medication Error, Missed Medication, Not given	Medication Error, Missed Medication, Not given	Medication Error, Missed Medication, Not given	Medication Error, Missed Medication, Not given
3	Fall	Fall	Fall	Fall
4	Aggression to housemate/peer	Aggression to housemate/peer	Aggression to housemate/peer	Aggression to housemate/peer
5	Restraint, Manual/Physical	Restraint, Manual/Physical	Restraint, Manual/Physical	Restraint, Manual/Physical
6	Alleged Neglect	Alleged Neglect	Alleged Neglect	Alleged Neglect
7	PRN Medication – Behavioral Pruposes	Elopement	Elopement	PRN Medication – Behavioral Pruposes
8	Elopement	PRN Medication – Behavioral Pruposes	PRN Medication – Behavioral Pruposes	Elopement
9	Alleged Abuse, Emotional/Verbal	Injury of Unknown Origin	Injury of Unknown Origin	Injury of Unknown Origin
10	Injury of Unknown Origin	Seizure	Alleged Abuse, Emotional/Verbal	Seizure
11	Medication Error(s), Wrong Dose	Alleged Abuse, Emotional/Verbal	Medication Error(s), Wrong Dose	Alleged Abuse, Emotional/Verbal
12	Seizure	Alleged Abuse, Physical	Alleged Abuse, Physical	Medication Error(s), Wrong Dose
13	Peer to Peer Aggression	Medication Error(s), Wrong Dose	Seizure	Alleged Abuse, Physical
14	Alleged Abuse, Physical	Peer to Peer Aggression	Peer to Peer Aggression	Alleged Exploitation, Financial
15	Injury of Known Origin	Injury of Known Origin	Alleged Exploitation, Financial	Peer to Peer Aggression
16	Self-Injurious Behavior	Self-Injurious Behavior	Injury of Known Origin	Environmental/Structural relocation required
17	Medication Error, Given Outside Window	Alleged Exploitation, Financial	Medication Error, Given Outside Window	Medication Error, Given Outside Window
18	Environmental/Structural relocation required	Medication Error, Given Outside Window	Self-Injurious Behavior	Injury of Known Origin
19	Medication Error(s), Wrong Medication	Medication Error(s), Wrong Medication	Environmental/Structural Relocation Required	Self-injurious Behavior
20	Alleged Exploitation, Financial	Aggression to Staff	Aggression to Staff	Medication Error(s), Wrong Medication

Data Drives the Process

	2016 Incident Report Data – Top 20 Incident Report Types			
Rank	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Medical Condition, Change in/Decline	Medical Condition, Change in/Decline	Medical Condition, Change in/Decline	Medical Condition, Change in/Decline
2	Aggression to housemate/peer	Aggression to housemate/peer	Aggression to housemate/peer	Aggression to housemate/peer
3	Medication Error, Missed Medication, Not given	Medication Error, Missed Medication, Not given	Medication Error, Missed Medication, Not given	Medication Error, Missed Medication, Not given
4	Fall	Fall	Fall	Fall
5	Restraint, Manual/Physical	Alleged Neglect	Alleged Neglect	Restraint, Manual/Physical
6	Alleged Neglect	Restraint, Manual/Physical	Restraint, Manual/Physical	Alleged Neglect
7	PRN Medication - Behavioral Pruposes	PRN Medication - Behavioral Pruposes	PRN Medication - Behavioral Pruposes	PRN Medication - Behavioral Pruposes
8	Elopement	Elopement	Elopement	Elopement
9	Injury of Unknown Origin	Injury of Unknown Origin	Injury of Unknown Origin	Injury of Unknown Origin
10	Seizure	Other	Seizure	Peer to Peer Aggression
11	Peer to Peer Aggression	Seizure	Other	Other
12	Other	Alleged Abuse, Emotional/Verbal	Alleged Abuse, Emotional/Verbal	Seizure
13	Self-Injurious Behavior	Self-Injurious Behavior	Self-Injurious Behavior	Self-Injurious Behavior
14	Medication Error(s), Wrong Dose	Peer to Peer Aggression	Injury of Known Origin	Alleged Abuse, Emotional/Verbal
15	Aggression to Staff	Alleged Abuse, Physical	Peer to Peer Aggression	Alleged Abuse, Physical
16	Alleged Abuse, Emotional/Verbal	Injury of Known Origin	Medication Error(s), Wrong Dose	Medication Error(s), Wrong Dose
17	Alleged Abuse, Physical	Medication Error(s), Wrong Dose	Alleged Abuse, Physical	Aggression to Staff
18	Injury of Known Origin	Aggression to Staff	Aggression to Staff	Injury of Known Origin
19	Environmental/Structural Problems No Relocation	Widespread rodent or infestation of any kind	Widespread rodent or infestation of any kind	Alleged Exploitation, Financial
20	Alleged Exploitation, Financial	Environmental/Structural Problems No Relocation	Alleged Exploitation, Financial	Environmental/Structural Problems No Relocation

Provider Selection for Participation

- **Providers grouped by size (statewide)**
  - **5 groupings**

- **State broken into 4 quadrants**
  - **Allows Data Driven Review Team to concentrate resources (maximum Provider benefit)**

- **Providers selected for a topic based on the number of incident reports in that area (per capita incident report ratio) or uniqueness of Provider operations**

Approach

- ➢ **The DDR Team schedules a face-to-face meeting with the Provider to discuss the process and review data.**
- ➢ **The Provider performs a root-cause analysis.**
- ➢ **The Provider develops a Quality Improvement Plan based on the root-cause analysis and reviews with the DDR Team.**
- ➢ **The DDR Team provides on-going support (via phone or in-person) throughout entire process.**
- ➢ **BQIS supplies the Provider with data for 12 months.**
- ➢ **Provider adjusts Quality Improvement Plan based on results of data analysis.**

Agenda

II. Data Analysis

BQIS' Baseline Data:

How is it calculated?

The baseline data is calculated by BQIS during the provider selection and is a Medication Error to Residential Consumer Ratio for each provider during a prior quarter (3 months).

For example, Company ABC has 54 residential consumers and 14 medications errors during the time frame of 1/1/16-3/31/16. The baseline = 14/54 = 0.259.

BQIS' data and method to measure improvement may not be the same used by the Provider to measure whether a Goal Performance was met.

Provider Performance Data:

➢ **The Provider submits a Root Cause Analysis and Quality Improvement Plan**

➢ **BQIS sends the Provider quarterly reports of incident report data.**

➢ **BQIS calculates the provider performance for the accumulative 12 months after the implementation of the Quality Improvement Plan.**

Provider Performance Data: Company ABC

Date	Activity
9/1/2015	BQIS establishes Baseline
4/5/2016	Provider submits a Root Cause Analysis and Quality Improvement Plan
4/12/2016	DDR Team convenes a conference call with the Provider and discusses submitted plan
5/1/2016	Provider implements Quality Improvement Plan
10/1/2016	Data sent to Provider for 3rd Quarter 2016 (7/1/2016-9/30/2016)
1/1/2017	Data sent to Provider for 4th Quarter 2016 (10/1/2016-12/31/2016)
4/1/2017	Data sent to Provider for 1st Quarter 2017 (1/1/2017-3/31/2017)
7/1/2017	Data sent to Provider for 2nd Quarter 2017 (4/1/2017-6/30/2017)
BQIS calculates the Medication Error/Residential Consumer Ratio for the entire 12 months (7/1/2016-6/30/2017)	
BQIS calculates Provider Performance by subtracting the 12 month calculation from the baseline.	

Provider Performance Data: Company ABC

Date	Activity	Residential Consumers	Med Errors
9/1/2015	Baseline	58	17
Baseline Medication Error/Residential Consumer Ratio		= 17/58 = 0.293	
10/1/2016	Data for 7/1/2016-9/30/2016	64	17
1/1/2017	Data for 10/1/2016-12/31/2016	61	13
4/1/2017	Data for 1/1/2017-3/31/2017	58	13
7/1/2017	Data for 4/1/2017-6/30/2017	60	12
	TOTAL	243	55
Medication Error/Residential Consumer Ratio for the entire 12 months (7/1/2016-6/30/2017)		= 55/243 = 0.226	

BQIS' Baseline Data as of Launch Date:

Baseline calculated as of launch date for the 31 Providers:

➢ **Total Residential Consumer Population = 4,902**
   (Includes CIH Waiver and SGL)

➢ **Total Medication Errors = 902**
   (Includes Missed Medication, Wrong Dose, Given Outside Window, Wrong Route, and Wrong Medication)

➢ **Overall Medication Error/Residential Consumer Ratio = 0.184**

Provider Performance Data:

For the 31 Providers that have completed the DDR process thus far:

➢ **Total Residential Consumers Population as of end of Data Tracking (12 months of data tracking) = 15,855**

➢ **Total Medication Errors as of end of Data Tracking = 3,650**

➢ **Overall Medication Error/Residential Consumer Ratio as of end of Data Tracking = 0.230**

Agenda

III. Results of Completed Reviews

Results of Completed Reviews

Data Driven Review Topic Area:
Medication Errors

2016

- ➢ **Quarter 1 (Pilot) – January 4, 2016 (5 Providers – All Complete)**
- ➢ **Quarter 2 (Full roll-out) – April 5, 2016 (15 Providers – 12 Complete)**
- ➢ **Quarter 3 – July 5, 2016 (15 Providers – 14 Complete)**
- ➢ **Quarter 4 – October 3, 2016 (13 Providers – Data monitoring)**

2017

- ➢ **Quarter 1 – January 3, 2017 (14 Providers – In Progress/Data monitoring)**
- ➢ **Quarter 2 – April 3, 2017 (15 Providers – In Progress/Data monitoring)**
- ➢ **Quarter 3 – July 3, 2017 (13 Providers – In Progress)**
- ➢ **Quarter 4 – October 3, 2017 (15 Providers – In Progress)**

Provider Demographics:

- **35 Providers initiated the DDR process**

  ➢ **Group 1 – Launch Date 1/5/2016**

  ➢ **Group 2 – Launch Date 4/5/2016**

  ➢ **Group 3 – Launch Date 7/5/2016**

- **31 Providers completed the entire DDR process**

  ▪ **Three providers closed**
  ▪ **One provider did not have Medication Errors reported and no further data to track**

Results of Completed Reviews

Provider's Root Cause Analyses:

Root Cause	Count on Provider Plans
All providers of the individual are not implementing the medication administration plan	2
Clients who self-medicate	4
Disconnect between transitioning providers	1
Family/Guardian Not Medicating Correctly During Individual's Home Visits	6
Frequent interruptions/distractions during med pass time.	13
Inconsistent forms/documentation standards throughout organization	4
Lack of communication	10
Lack of consistent staff	5
Lack of supervisory oversight	16
Medication storage issues	6
Need for increased staff training	8
Need for updated policies/procedures	4
Pharmacy issues	7
Staff not following med training protocols	27

*Provider may have listed more than one root cause.

Providers utilized the Root Cause Analysis to develop a Quality Improvement Plan

Provider's Quality Improvement Plans:

Frequent Interruptions/Distractions During Medication Pass Times

➢ When staffing permits, have a second staff block the Med Pass area to prevent disruption.

➢ Reiterate to individuals that during the Med Pass Process is not the appropriate time to raise other concerns.

➢ Ensure only one consumer is in the Med Pass area at a time.

➢ Implement a visual indicator that Med Pass is in process to indicate that distractions should be kept to a minimum.

➢ Separate consumer med passes by a few minutes to ensure the environment is calm and there are no distractions.

Provider's Quality Improvement Plans:

Frequent Interruptions/Distractions during Medication Pass Time

➢ Complete individualized activity schedules to include medication administration times.

➢ Ensure Med Pass area is not in a high traffic area.

➢ Develop a plan for each site with suggestions on how to minimize distractions during medication passes.

➢ Utilize a 'STOP' sign on the table/designated medication passing area at the time of each medication pass and remove at the end of each medication pass to remind all individuals to not interrupt.

Provider's Quality Improvement Plans:

Family/Guardian Not Medicating Correctly During Individual's Home Visits

➢ Provide an extra dose of medication in the event individual is late returning from home visit.

➢ Include a detailed list, by date and time, of when each medication should be administered.

➢ Provide detailed instructions as to how to administer each medication- crushed in applesauce, with food, etc.

➢ Provide a contact number for family members to call with medication administration questions/concerns.

➢ Educate family on the consequences of missed medications.

➢ Allow staff to send text messages to family at medication administration time.

Provider's Quality Improvement Plans:

Staff not Following Medication Training Protocols

➤ **Retrain staff to utilize the MAR at each medication pass.**

➤ **Train all staff to initial the MAR at the same place each time.**

➤ **Check MAR against received medications after each pharmacy delivery/pick up.**

➤ **Indicate on MAR when medications are stored in different areas-refrigerator, locked cabinet, etc.**

➤ **Implement buddy reviews of MAR at shift change with oncoming staff and notify QIDP of unsigned boxes on the MAR or medication still present upon arrival at site.**

Provider's Quality Improvement Plans:

Lack of Supervisory Oversight

➢ **Establish work group with Supervisors and Direct Support Professionals to identify root cause of medication errors.**

➢ **Supervisors/Leads are present at the site and are required to review the MAR for accuracy.**

➢ **Medication passes observed by the QIDP/nurse prior to solo medication passes in addition to the required training.**

➢ **Observe medication administration in homes to ensure staff are implementing training on reducing distractions and provide feedback to staff on what is observed.**

Provider's Quality Improvement Plans:

Provider's Innovative Ideas

➢ **Establish a Med Error Committee, comprised of a nurse and different levels of staff to review, with staff, each med error before the staff can perform another med pass. Determine what happened, why it happened, and how it could have been avoided. Share any insights with all staff.**

➢ **Establish tiered DSP roles, allowing staff to move up through the tiers as they do a certain amount of med passes with no errors.**

➢ **Establish a DSP support position to assist staff that are new, or uncomfortable with the med pass process so staff does not have to contact supervisory personnel for assistance.**

➢ **Have staff perform a modified root cause analysis exercise after each med error and submit to management. Management can then review the information and track findings to quickly identify any required changes.**

Provider's Quality Improvement Plans:

Provider's Innovative Ideas

➢ **Have staff create alarms on their phones or supply site with alarm clocks and set times to correspond with site's medication times.**

➢ **Utilization of a chronological MAR instead of alphabetical.**

➢ **Implementation of a medication communication sheet to ensure issues with medications are communicated among staff.**

➢ **Organize medication administration and storage areas similarly at each location to minimize errors as staff transition from home to home.**

➢ **Creation of a reminder card for storage of special medications.**

Agenda

IV. Conclusion

What does the data say so far…

➢ **39% of the 31 Providers saw improvement in the Medication Error/Residential Consumer ratio**

➢ **Seven (7) Providers had a significant increase in the Medication Error/Residential Consumer ratio which increased the combined results;**

➢ **The overall Medication Error/Residential Consumer ratio increased by 0.046;**

➢ **Limited data is currently available to make a full analysis of the impact of DDR (med errors) as 85 providers are still completing the process.**
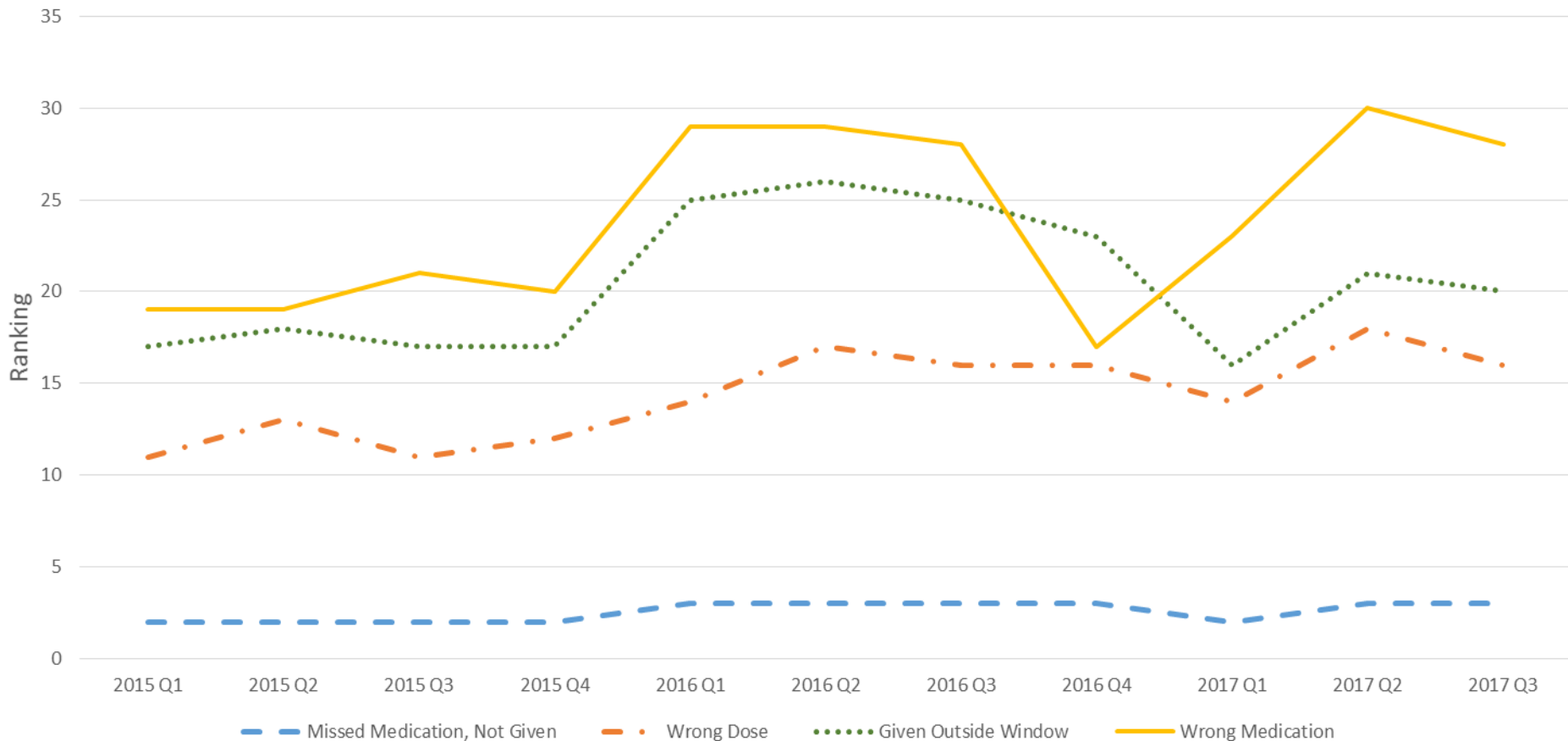
Conclusion

What does the data say so far…

Provider's Goals, Metrics and Data:

➢ **Providers goals and benchmarks were focused on reducing medication errors without taking into account the change in residential consumer count;**

➢ **Some goals established by providers were unrealistic (e.g. reduce med errors by 50% in 3 months);**

➢ **Quality improvement plans were not always aligned with a root cause.**

Moving forward:

➢ **BQIS will be including more data in the information given to the providers to support the data analysis and tracking;**

➢ **BQIS will be revising the root cause analysis and quality improvement plan templates to facilitate better outcomes;**

➢ **BQIS will continue tracking and reporting out the data.**

The Bureau of Quality Improvement Services (BQIS) would like to thank those Providers that have completed this process, as well as those Providers currently involved in the process. We feel this is a critical step in identifying steps to improve the lives and health of the individuals we serve.

V. Questions/Discussion

VI. Contact Information

Contact Information

Bureau of Quality Improvement Services

Jessica Harlan-York
Director, Bureau of Quality Improvement Services
317.234.1147
Jessica.Harlan-York@fssa.in.gov

Shelly Thomas
Assistant Director, Bureau of Quality Improvement Services
317.234.2764
Shelly.Thomas@fssa.in.gov

Naomi Brimer
Program Manager, Data Driven Review Team, Advocare
219.738.9930 (x3100)
Naomi.Brimer@fssa.in.gov