



How to use data analytics to improve management decision making and enhance care delivery

Ryan Quist, Ph.D.

Riverside County Behavioral Health
Riverside University Health System

Guiding Principles

- Right Time
- Right People
- Right Data
- Right Technology
- Right Staff

Right Time

- How frequently to report?

	Pros	Cons
Annually	Good for messaging	Only current 1x/yr
Quarterly	Good for monitoring / sustaining	Difficult to see improvements in real time
Monthly	Good for change management	Difficult for real-time accountability
Daily / On Demand	Good for real-time accountability	Data Overload

Right People: Line Staff and Supervisors

- Error Checking
- Productivity
- Monitoring Compliance
- Clinical Tools
- Alerts
- Day-to-Day Operations
- Real-Time Information
- On Demand Reports
- Event Driven Data
- Scheduled Distribution

Consumer Hot Sheet

Episode: 23: ZZZ334547 OP ProgramELMR - Discharged

Print this page

TESTDATA, TEST Consumer Name	950645162 MR #	23: ZZZ334547 OP ProgramE1 MR Episode Number
4/1/2016 Admit Date	4/5/2016 Discharge Date	English Primary Language

Warning Messages

- Assessment will Expire Soon
- No Care Plan For This Episode
- No Current/Active Notice of Privacy Practices On File Of This Consumers Episode
- No Child/Adult Consent to Treat On File Of This Consumers Episode
- No Release and Receipt Authorization On File Of This Consumers Episode

Assessment - Yearly

Form: Child Assessment
 Date of Assessment: 7/19/2017
 Expiration Date: 3/31/2018
 Type: Clinical
 Status: Draft
 Assessing Practitioner: WEINLAND,AMANDA CHARLOTTE (244562)
 Program: 3315NA OP MHSA Non-FSP Adult-Blaine

Assessment will Expire Soon

AIMS - Yearly If On Antipsychotics

Done on - Due: 6/2/2017 - 6/2/2018

Medication Consent(s)

CURRENT — EVERY 3 YEARS

Good For: 1/30/2018 - 1/29/2021 Status:Final

Details:

Current Medication(s) From OrderConnect

Date Presc | Med Category | Drug Name | Dosage Schedule

- 1/25/2018 ; Antipsychotic ; SEROquel ; - 25 MG, Tablet, Oral (2)Tablet At Bedtime
- 1/25/2018 ; Antipsychotic ; Invega Sustenna ; - 234 MG, Suspension, Extended Release, Intramuscular (1)Unit Once a Month
- 12/20/2017 ; Antipsychotic ; ARIPIprazole ; - 10 MG, Tablet, Oral (1)Tablet Twice a Day
- 12/20/2017 ; Antidepressant ; FLUoxetine HCl ; - 20 MG, Capsule, Oral (1)Capsule Daily
- 12/14/2017 ; Anticonvulsant ; clonazepam ; - 1 MG, Tablet, Oral (1)Tablet Twice a Day, As Needed
- 2/1/2017 ; Anxiolytic ; Xanax ; - 1 MG, Tablet, Oral (1)Tablet Every Morning

- NON-ISC Rx: Albuterol
- NON-ISC Rx: Lasix
- NON-ISC Rx: Clantix
- NON-ISC Rx: Motrin 50 mg po PRN
- NON-ISC Rx: Motrin 600 mg po PRN
- NON-ISC Rx: Aspirin Adult Low Strength
- NON-ISC Rx: glucophage
- NON-ISC Rx: tylenol 50 mg po QD PRN
- NON-ISC Rx: Sudafed 12 Hour
- NON-ISC Rx: Vitamin D

Client Care Plan - Yearly

Care Plans are Episodic
 No Care Plan On File For Selected Episode

Notice of Privacy Practices — Every 3 Years

Notice of Privacy Practices are Episodic
 No Notice has Expired

Child/Adult Consent to Treat — Every 3 Years

Child/Adult Consent to Treat are Episodic
 No Child/Adult Consent to Treat On File Of This Consumers Episode

Right People: Supervisors and Management

- Trending
- Drill down reports
- Dashboards
- Change Management
- Maintenance
- Forecasting
- On Demand Reports
- Scheduled Distribution
- Committee Reporting

Caseload Critical Dates**COLOR KEY**

RED = OVERDUE

GREEN = CURRENTLY DUE

BLUE = UPCOMING DUE DATE

D = In Draft

I = In Missing

ORANGE = OVER 30 DAYS (LAST BHS NOTE)

WHITE: CURRENT (BHS NOTE)

YELLOW = OVER 90 DAYS (LAST BHS NOTE)

Caseload Critical Dates - 3301NO OP Older Adult - Desert - Indio

Older Adults - County**3301NO OP Older Adult - Desert - Indio**

Barbara Jean Strong (bjstrong)

Client ID	Name	CCP Start Date	CCP End Date	Assessment Date	Last Date of Service
		3/22/2017	3/31/2017	3/22/2017	3/22/2017
		8/30/2016	7/31/2017	8/30/2016	3/29/2017

Gail Denise Ingram (gdingram)

Client ID	Name	CCP Start Date	CCP End Date	Assessment Date	Last Date of Service
		2/17/2017	8/31/2017	2/17/2017	3/31/2017
		3/17/2017	2/28/2018	3/17/2017	3/17/2017

Marc Dobson (mddobson)

Client ID	Name	CCP Start Date	CCP End Date	Assessment Date	Last Date of Service
		9/27/2016	8/31/2017	9/27/2016	3/17/2017
		3/27/2017	2/28/2018	3/27/2017	3/27/2017

Marcia Hudson (mdhudson)

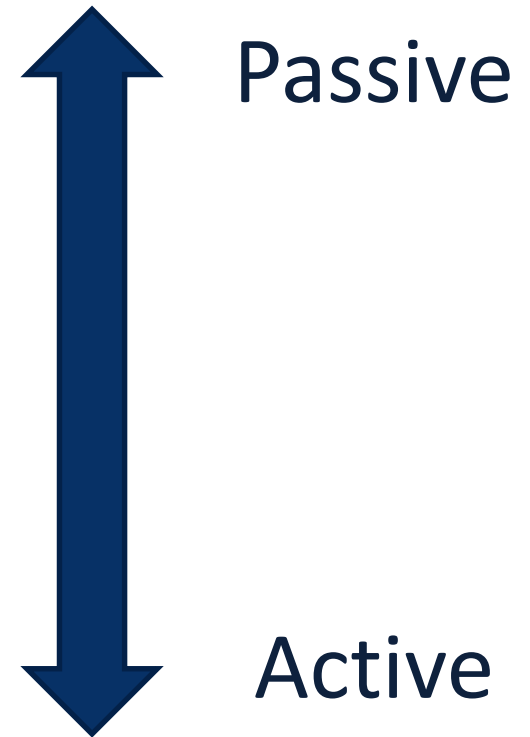
Client ID	Name	CCP Start Date	CCP End Date	Assessment Date	Last Date of Service
		11/1/2016	10/31/2017	10/14/2016	4/5/2017
		10/1/2016	9/30/2017	9/30/2016	2/8/2017
		4/1/2017	3/31/2018	3/13/2017	3/13/2017
		2/18/2016	1/31/2017	2/18/2016	12/6/2016
		9/1/2016	8/31/2017	8/31/2016	3/28/2017
		10/4/2016	9/30/2017	10/4/2016	1/17/2017
		12/16/2016	11/30/2017	12/16/2016	4/5/2017
		3/1/2017	2/28/2018	2/9/2017	2/9/2017
		7/14/2016	5/31/2017	7/14/2016	3/30/2017

Right People: Executive Management

- Bulleted points
- Talking points
- Abstracts
- Looking for synthesis
- Messaging
- Business Intelligence
- Executive Summaries
- Briefings
- Priority Highlights

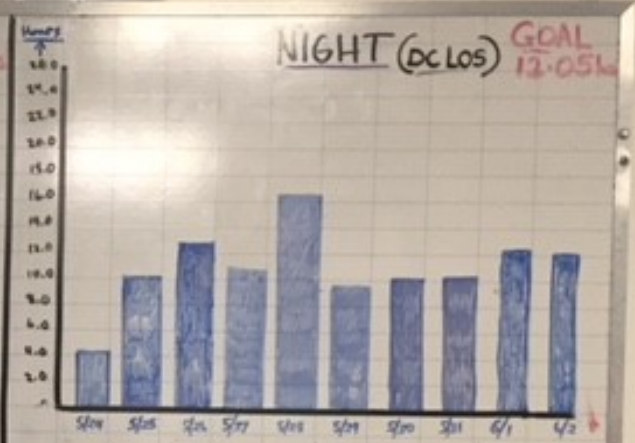
Right People: Communication and Dissemination

- Email
- Websites / Dashboards
- Hard Copies
- Committee Presentations
- Facilitated Discussion
- Action Planning



Right People: Examples

- Staff Huddle
- Staff Meetings
- Management Meetings
- Quality Improvement Committee
- Executive Management Agenda



Staffing

- # RN for RNA -
- # Floor Staff -
- # Minor RN -
- # Minor CNA -

ETS SURGE

- Yes
- No

6/8/17

CENSUS → 40
 Adults only → 36
 Minors - 4
 CTI/SP - 0

S+R - 8
 CODE GREEN -
 MED CLEARANCE - 0
 POTENTIAL DIC - 0
 IM MEDS -

HS
 CN REGINA
 2nd SELVINE
 SW Christine 86132

MD Ibrahim 86921
 MD Pozano 84729
 MD Seifer 15990

MD Res -
 Res -
 PA -

ETS Admittance - 89223
 86922
 ETS Admittance - 86922
 86922

ACTIVE ISSUES:

CAMERA FOR ET-152334
 NOT OPERATIONAL Since 05/17

ETS minor Rm 1 phone
 REP# 002200 - 11223

~Kudos~

- Teamwork
- Respect
- Integrity
- Excellence
- Discovery

ETS

(EMERGENCY + TREATMENT + SERVICES)

EPIC

NEW EPIC:
• SOGI-
SEXUAL ORIENTATION
GENDER IDENTITY

Remind

Physical Restraints doc
CHB bath documentation
Invoiced → Daily Care → Repair

EPIC UPDATE
Oct. 22nd

QUALITY AND SAFETY

ACCESS

↓ All LOS forms by 6/26 & 12/26
↓ New Inpatient Code Green
from 17 Units & 20 Units

INPATIENT EXPERIENCE

↓ Pt. to Pt. Assaults by 5/22
from 11 to 5 by Dec. 2017
↓ Code Green by 30%

EMPLOYEE ENGAGEMENT

	MAY	JUNE	JULY	AUGUST	SEPT	OCT	NW
# Pt. & R Available	0	4	2	3	2		
# INPATIENT	0	2	3	3	2	0	
# LOS	99 hrs	15 hrs	15 hrs	13 hrs	17.4		
hour to check	652 min	40 min	50 min	45 min	475		
# Code Green		36	26	8	11		
# S&R	23	24	20	17	20		
% Completed S&R	56%	70%	50%	59%	45%		
% Completed Post-Event doc	71%	59%	49%	72%			



ACADEMICS

Improvement Initiative
Code Green - Sarah M

All Units
Katie Lead - Toyin O
S&R doc - Godi N
Compliance - Christina A

Employee Engagement
Chair - Lenore T.
UBS/LPT - Linda H
including employees

EMPLOYEE FORUM

PEOPLE

RS of 10/1/17

Newly Hired
6 Travelers (on hold)
1 pending to start

5 Open Full Time RN
positions
1 open Traveler position

UNIT MEETING

NEW Standard of Work

NEW PROCESSES

Code BERT
ETS at Planning Bed huddle @ 11am & 11PM
UBS/LPT work flow

STABILIZED PROCESSES

Triage Level 1 & 2 documentation, code green list, MyPhone phones

IMPROVING PROCESSES

Firearm documentation, LOS, Door to Doc time,

DECLINING PROCESSES

S&R Documentation

IMPROVEMENT FOCUS

- * Property staff (new) Refill Lower chairs
- * Completed information on Comments for huddle
- * S&R Documentation
- * Firearms Documentation → check 2nd note in PLAN
- * Decreasing Pt. to Pt. Assaults

EMPLOYEE RECOGNITION

RN IV Promotion Toyin O
RN IV Promotion Rachel A
Psych/FUP Yvonne J.
Congrats graduate! Sarah M.
PMHN Certification - Jana P.

Arington
is the
Word

RUHS Values: Trust, Respect, Integrity, Excellence, Diversity

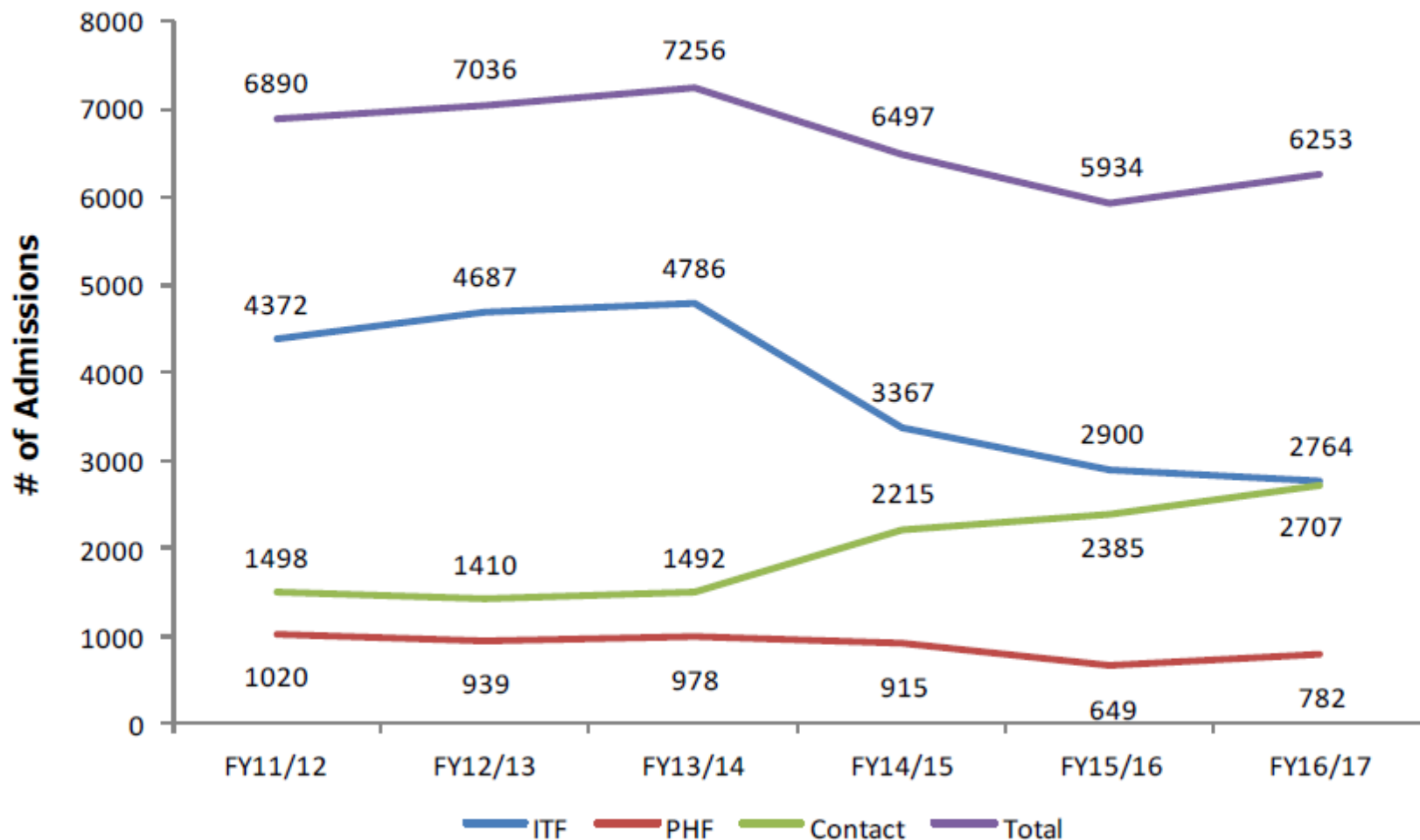
Right Data

- Business Intelligence (BI) Maturity – Gartner
 - Sophistication Level
 - BI Resourcing
- Work Flow Integration
- BI Culture

Right Data: Establishing a Foundation

- What's currently happening?
 - Hospital census
 - Call volume
 - Productivity
 - Readmissions
 - How many consumers receive services
 - How many services do they receive?
 - Who are they? (gender, ethnicity, age, diagnosis...)

Number of Total Admissions by Fiscal Year

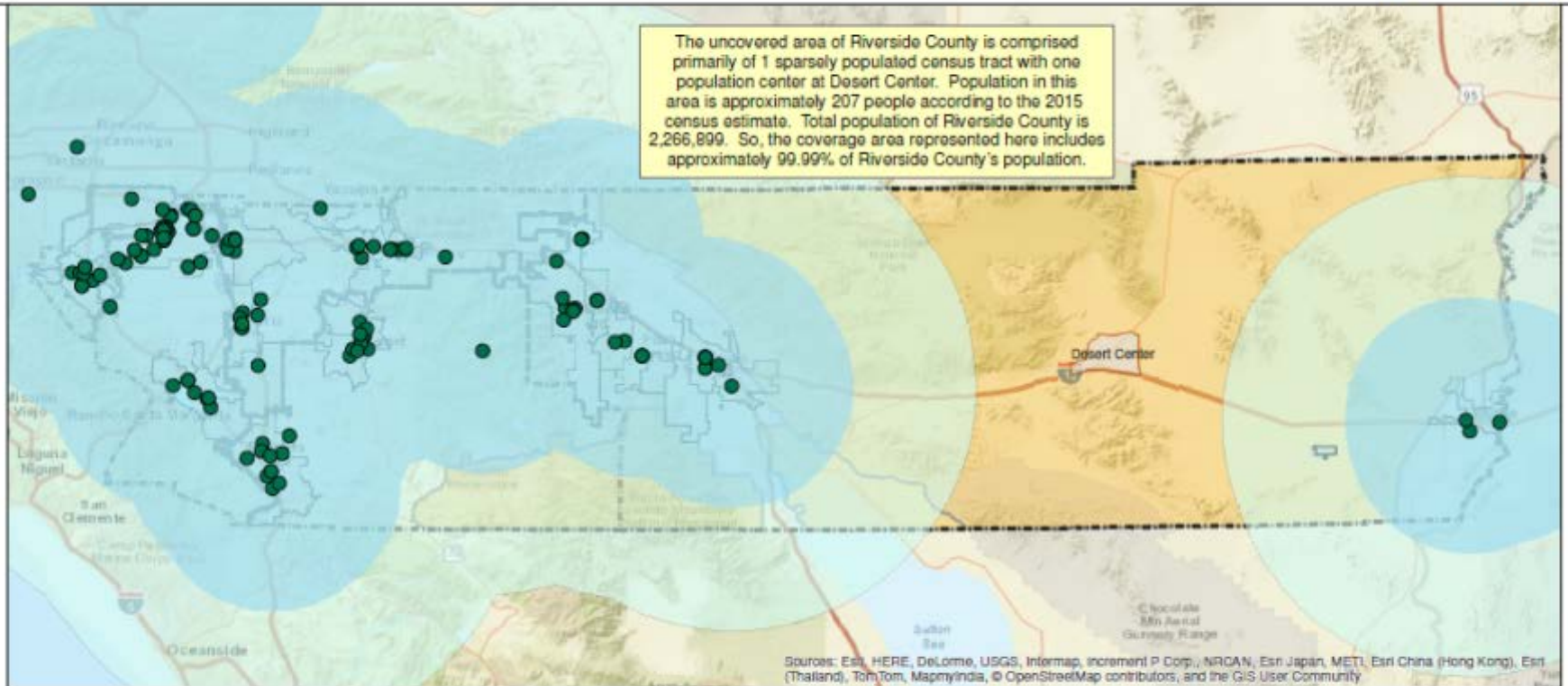


Right Data: Quality Management

- Time to first appointment
- Network Adequacy
- Documentation Compliance
- Grievances and Appeals
- Test Calls
- Consumer Perception
- Call Center Performance

Riverside University Health System - Behavioral Health

Riverside County Mental Health Network Coverage Area (15- and 30-Mile radius)



Network Coverage Legend

- Providers
- Uncovered Census Tracts
- 15-Mile Coverage
- 30-Mile Coverage
- SUPERVISORIAL DISTRICTS



Right Data: Outcomes

- Mental Health Services Act
 - Full Service Partnership
 - Prevention and Early Intervention
 - Innovations
- Evidence-Based Practices
- Grant Funded Programs
- Contract Providers

Right Data: Anticipating Future Needs

- Unmet Need
- Community Needs
- Medi-Cal 2020
- Value-Based Payment Models
- Healthcare Integration
- Child Welfare Initiatives
- Drug Medi-Cal Organized Delivery System
- Correctional BH & AB 109

Right Data: HEDIS Measures

- Healthcare Effectiveness Data and Information Set (HEDIS)
 - Standardized measures
 - Benchmarks are available
 - Evaluates health plan quality

Right Data: BH HEDIS Measures

- Follow up after hospitalization (7, 30 days)
- Hospital Readmissions
- Children on Antipsychotics
 - Psychosocial Care
 - Metabolic Monitoring
 - Multiple Concurrent
- Schizophrenia
 - Adherence to Antipsychotic Meds
 - Cardiovascular Monitoring
 - Diabetes Screening
- Antidepressant (2) and ADHD (2) Med Management

Region	*Discharges	**Readmissions	Readmission Rate
Central Children - County	5	1	20.0%
Crisis Hospital - County	35	11	31.4%
Desert - County	71	27	38.0%
Mid County - County	40	5	12.5%
Not Assigned	242	24	9.9%
Older Adults - County	11	2	18.2%
Western Adult - County	32	8	25.0%
Western Children - County	8	1	12.5%
Contract Providers	12	2	16.7%
Total	456	81	17.8%

Region	*Discharges	Follow-ups w/in 7 days	Follow-up rate w/in 7 days	Follow-ups w/in 30 days	Follow-up rate w/in 30 days
Central Children - County	2	1	50.0%	2	100.0%
Crisis Hospital - County	54	29	53.7%	42	77.8%
Desert - County	97	70	72.2%	79	81.4%
Mental Health New Life - County	1	1	100.0%	1	100.0%
MH Treatment - County	7	5	71.4%	7	100.0%
Mid County - County	61	28	45.9%	46	75.4%
Older Adults - County	10	4	40.0%	6	60.0%
Substance Abuse - County	10	1	10.0%	7	70.0%
TAY - County	6	5	83.3%	5	83.3%
Western Adult - County	33	15	45.5%	25	75.8%
Western Children - County	25	11	44.0%	24	96.0%
Contract Providers	20	7	35.0%	13	65.0%
Not Assigned/No Follow-up- County	157	0	0.0%	0	0.0%
**Total	483	177	36.6%	257	53.2%

Right Technology: Data Management

- Spreadsheets
- SQL
- Electronic Health Record
- Data Warehouse
- Web-based Data Collection

Right Technology: Data Analysis

- Excel & Access
- SAS, SPSS
- Business Intelligence (BI) software
- GIS
- PeopleSoft or other Finance Software

Right Technology: Reporting

- Manual
- Electronic Health Record
- Intranet Websites
 - For reports w/o PHI
- Report Distribution Server
 - Authentication required for reports w/ PHI

Right Staff: Job Classifications

- Information Technology Positions
 - Technical Skills
- Research Positions
 - Analytic Skills
- Teaming IT & Research Positions

Right Staff: Recruitment

Functions	Prior Experience
Electronic Health Record	Coding, Scripting, SQL, Crystal Reports
Research & Evaluation	Advanced Degrees, Research, Data Analysis, Behavioral Health Content Expertise
Financial Reporting	SQL, Crystal Reports, Accounting

Right Staff: Training & Retention

- Career Ladder
 - Supervising Research Specialist
 - Business Process Analyst II
 - Research Specialist II
 - Business Process Analyst I
 - Research Specialist I
 - Research Analyst

Thank you

- Ryan Quist, Ph.D.
- rmquist@rcmhd.org
- 951.955.7126