



HRSA Primary Care Training and Enhancement

Fully Integrating Behavioral Health Care into an Academic Family Medicine and a FQHC Clinic: Preparing Residents to Work Effectively in Integrated Care

Department of Family and Community Medicine
Wake Forest University School of Medicine
United Health Center
TOBHP28568



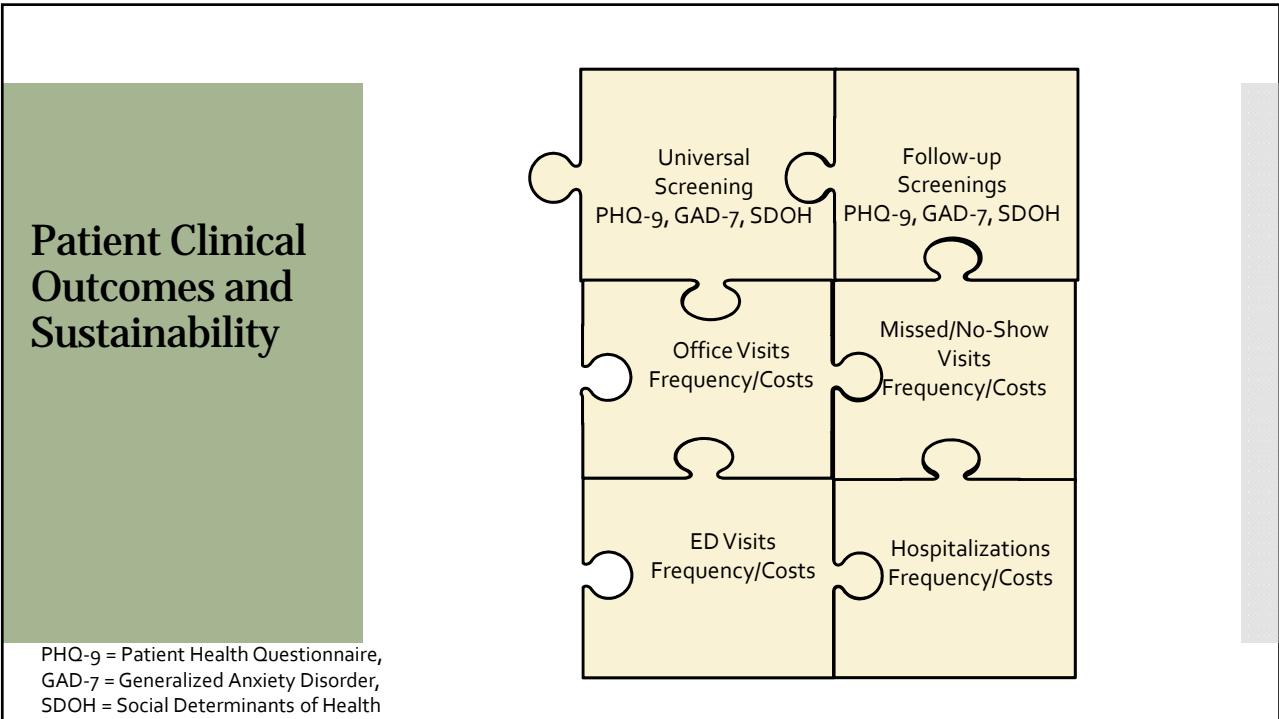
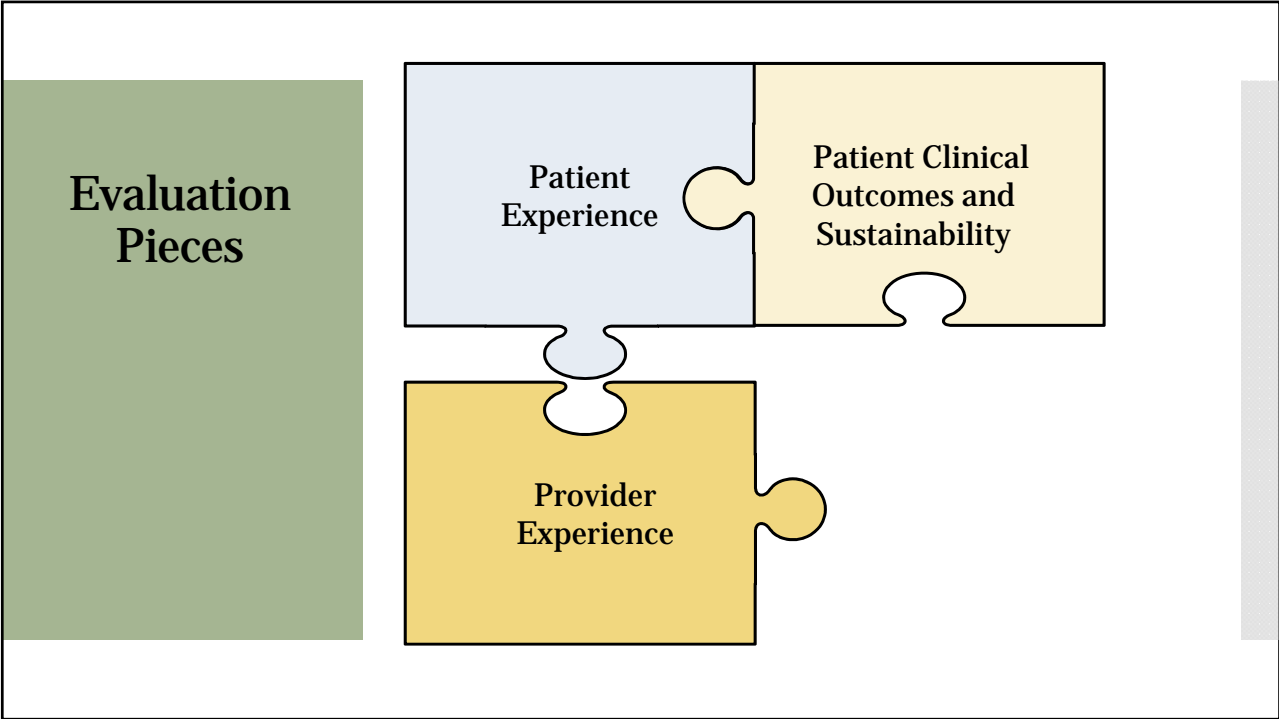
Our Goal
Integrated Patient-Centered Medical Home Care

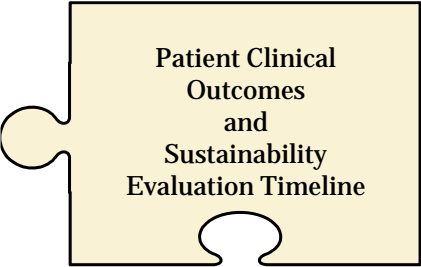
Create an educational infrastructure and transform clinical operations to become fully integrated Patient-Centered Medical Homes (IPCMH)

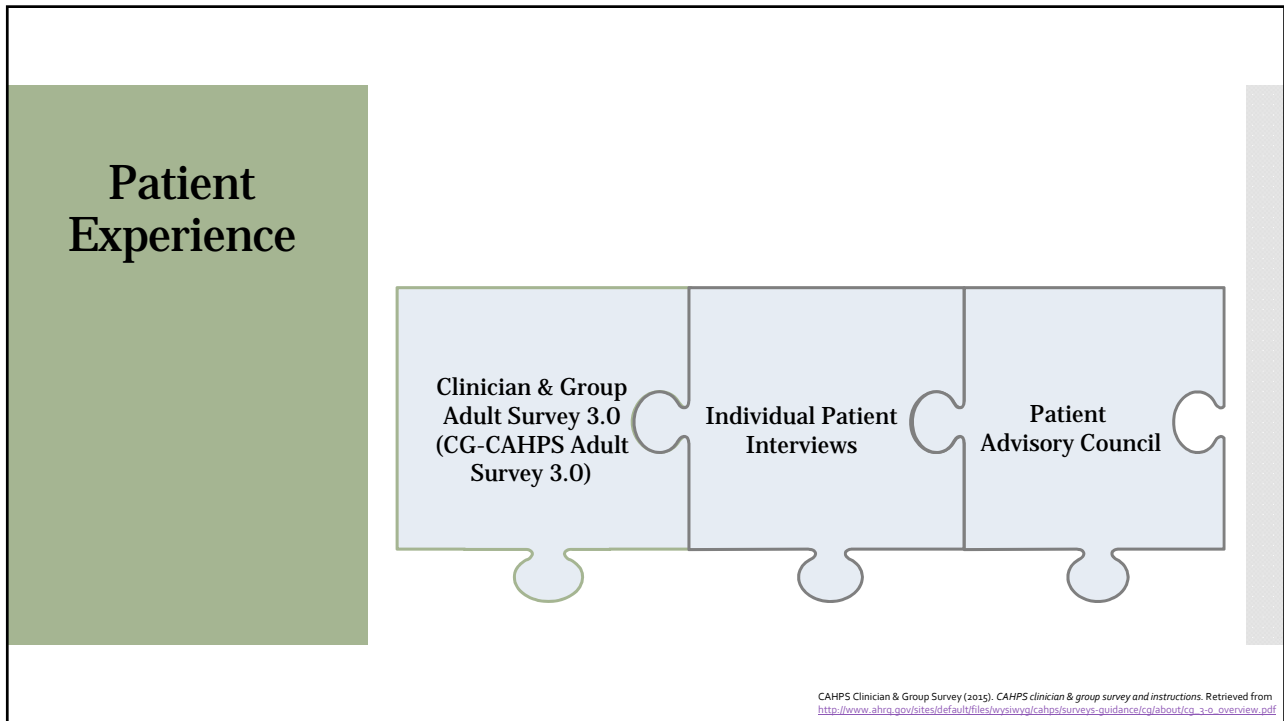
- Ensure more effective care and safety for all patients (IRB approvals), especially for underserved patients who have more behavioral health needs.
- Teach residents, faculty, and health professions learners to function in integrated teams.

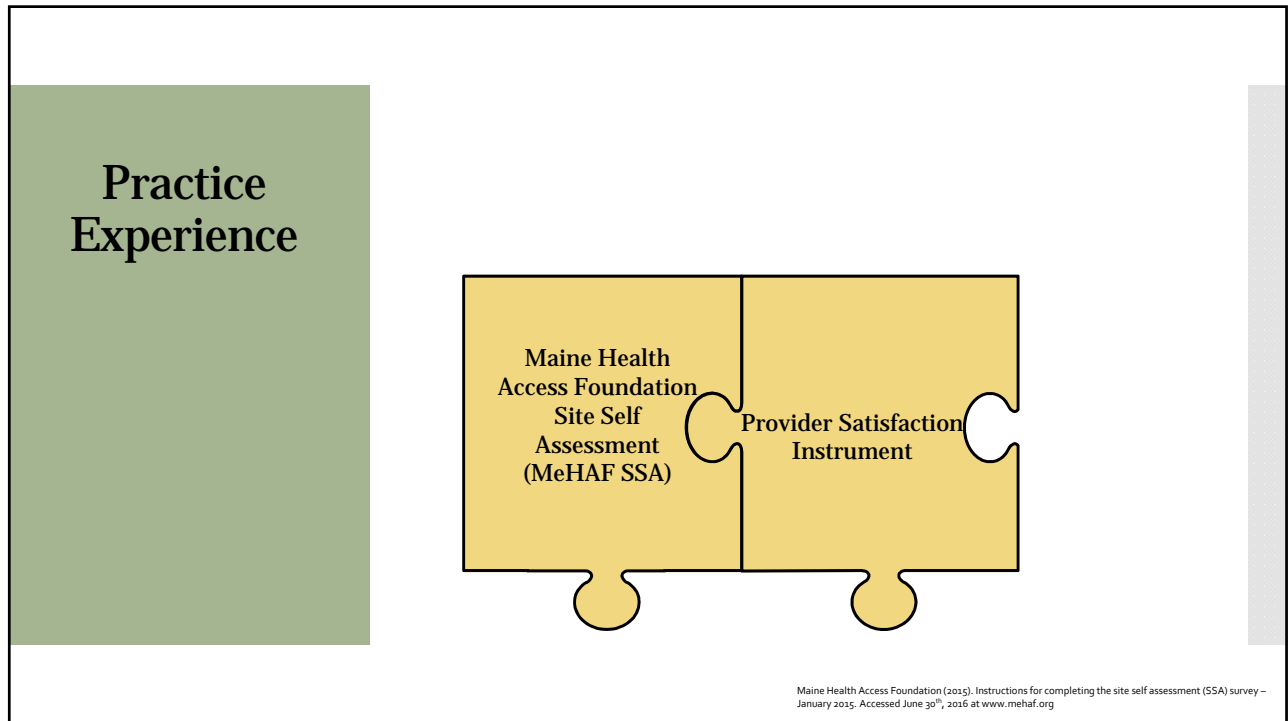
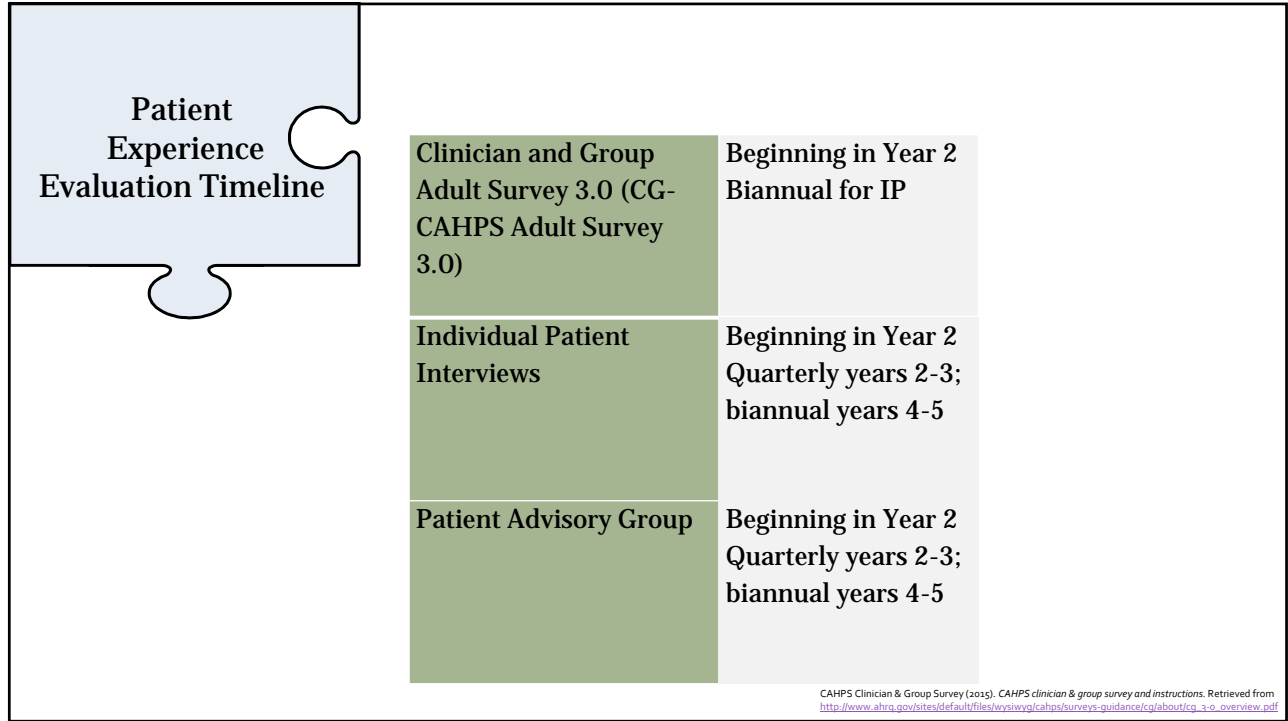
Overall Project Objectives

- Develop, implement, evaluate, and sustain an Integrated Patient-Centered Medical Home (IPCMH) curriculum and practice for residents, faculty, students, and staff.
- Develop, implement, evaluate, and sustain the model for all clinician providers, learners, and staff to enhance resident and health professions learner education.



Universal Screenings - PHQ-9, GAD-7, SDOH	Start Year 1, 3 rd Quarter; sessions with BHP** until treatment complete; 6 months post completion	 <p>Patient Clinical Outcomes and Sustainability Evaluation Timeline</p> <p>*IP - Identified Patients **When an Identified Patient meets with Behavioral Healthcare Provider (BHP) for individual ***IC (Integrated Care) sessions</p>
Office visits Frequency/Costs	Years 1-5 Baseline and through provision of IC***	
Missed/No-Show visits Frequency/Costs	Years 1-5 Baseline and through provision of IC	
Costs of ED Visits Frequency/Costs	Years 1-5 Baseline and through provision of IC	
Hospitalizations Frequency/Costs	Years 1-5 Baseline and through provision of IC	





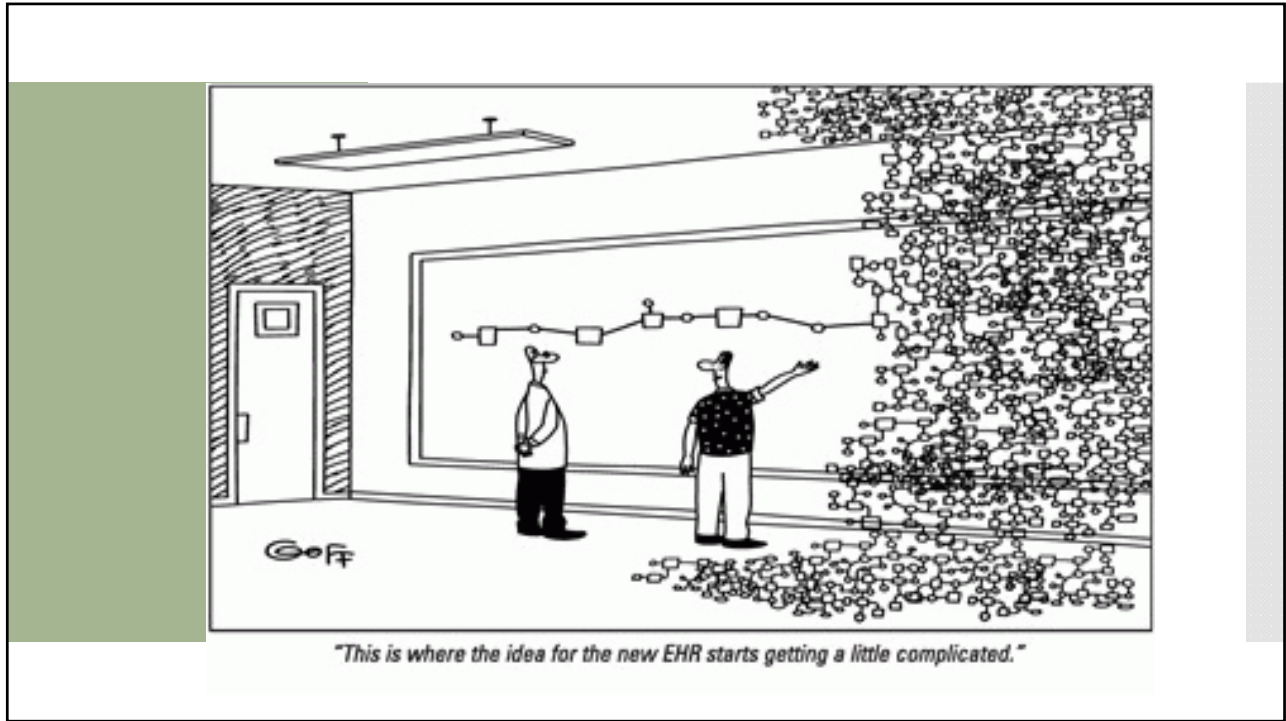
Practice Experience Evaluation Timeline

MeHAF SSA	Baseline and twice yearly for all providers and clinical staff- Both Sites
Provider Satisfaction	Begin 3 rd Quarter and Quarterly throughout

Maine Health Access Foundation (2015). Instructions for completing the site self assessment (SSA) survey - January 2015. Accessed June 30th, 2016 at www.mehaf.org

Evaluation Plan

- **Qualitative**
 - Patient Advisory Groups
 - Individual Patient Interviews
- **Quantitative**
 - Statistic and summary of evaluative measures



Snapshot Images References Questionnaires Admin Benefits Inquiry Open Orders Care Teams Preview A/S Print A/S Media Manager Request Outside Records

Try the Widescreen View Not Right Now Do Not Show This Again

There is a new, faster way for you to finish your visit documentation with fewer clicks and less scrolling. [Learn More](#) [Try It](#)

Charting

Visit Information [click to open](#)

Chief Complaint

None

Recent Visits with Me

None

Other Visits in Family Medicine

None

Infection Control [click to open](#)

New Reading [Go to Doc Flowsheets](#)

No data found.

BestPractice

PHQ-4 [click to open](#)

New Reading [Go to Doc Flowsheets](#)

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PHQ-9 [click to open](#)

New Reading [Go to Doc Flowsheets](#)

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GAD-7 [click to open](#)

New Reading [Go to Doc Flowsheets](#)

No data found.

SDOH [click to open](#)

New Reading [Go to Doc Flowsheets](#)

Visit Navigator

Discharge

Pt Instructions

Charge Capture

LOS

Follow-up

Quality Measures

MU Objectives

Close Encounter

PHQ-9 - Patient Health Questionnaire PHQ-9

Time taken: 1630 10/12/2016 Show: Last Filed All Choices

Values By Create Note

Depression Screening - Over the last month, how often have you been bothered by any of the following problems?

Patient refuses one or both of depression screenings 0=No 1=Yes

During the past month, have you often been bothered by feeling down, depressed, or hopeless? 0=No 1=Yes

During the past month, have you often been bothered by little interest or pleasure in doing things? 0=No 1=Yes

SDOH - SOCIAL DETERMINANTS OF HEALTH

Time taken: 1630 10/12/2016 Show: Last Filed All Choices

Values By Create Note

SOCIAL DETERMINANTS OF HEALTH

Do you worry that your food will run out before you get money to buy more? 0=Never 1=Rarely 2=Some... 3=Often 4=Always

Do you worry that your home is unhealthy or that your family may become homeless? 0=Never 1=Rarely 2=Some... 3=Often 4=Always

Do you have trouble paying utility bills (like gas, electricity, and phone/cell phone)? 0=Never 1=Rarely 2=Some... 3=Often 4=Always

Does your family have trouble affording things you need for your health (like medicines, eyeglasses, etc)? 0=Never 1=Rarely 2=Some... 3=Often 4=Always

Do you need help with transportation to clinic appointments, the pharmacy, and other services? 0=Never 1=Rarely 2=Some... 3=Often 4=Always

SDOH Total Score

Snapshot | Images | References | Questionnaires | Admin | Benefits Inquiry | Open Orders | Care Teams | Preview AVS | Print AVS | Media Manager | Request Outside Records

Chart Review | Care Everywhere | Care Everywhere | Time taken: 1630 | 10/12/2016 | Show: Last Filed / All Choices

Values By (Create Note)

INTEGRATED CARE SESSION

Session Number

Length of Session

Current Diagnosis

Modality: 1=individual 2=couple 3=family

Type of Therapy: 1=CBT 2=Interpersonal Psychother... 3=Mindfulness 4=Bowen Family Systems 5=Motivational Interviewing 6=Solution Focused Therapy 7=Structural Family Therapy 8=Other

PHQ-4 Total Score PHQ9 Total Score

PHQ9 symptoms have impacted ability to function in work, school, relationships
0=not at all difficult 1=somewhat difficult 2=very difficult 3=extremely difficult

GAD-7 Total Score

GAD7 symptoms have impacted ability to function in work, school, relationships
0=not at all difficult 1=somewhat difficult 2=very difficult 3=extremely difficult

SDOH Total Score

Mini Mental Status - Judgment: 1=appropriate 2=impaired

Mini Mental Status - Oriented: 1=normal 2=abnormal

Mini Mental Status - Memory: 1=normal 2=depressed

Data Tools

- EPIC – Reporting Workbench, Crystal Reports, Healthy Planet
- WFUBMC – Data Mart
- Commercial Software – Tableau, SPSS/SAS

Suggestions/ Challenges

- IT Personnel – Are your friends (e.g. flowsheets)
- Raw Data – Always check random sample
- Challenge – Epic: High security clearance
- Challenge – Epic: All variables not populated
- Challenge – >1 EHR
- Challenge – Analysis cross-sectional and longitudinal, different enrollment dates

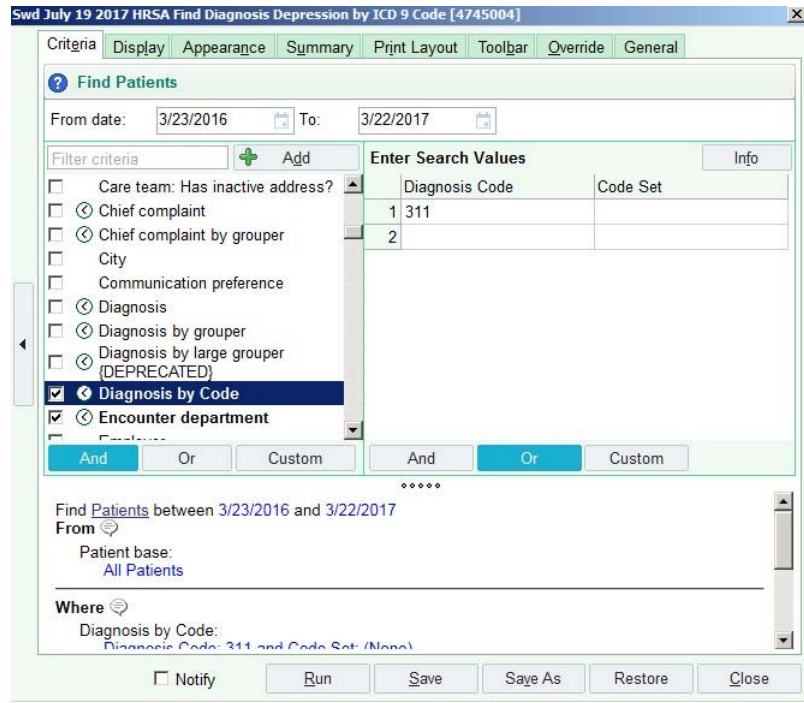
EPIC Reports Cover a Variety of Domains

The screenshot displays the EPIC Library interface. At the top, there is a search bar with the text "Swd ICG" and a search icon. Below the search bar, there are several reports listed, each with a star icon and a brief description. The reports include:

- Swd March 14 2017 ICG Flowsheet Search Session eq 1
- Swd April 2 2017 ICG Flowsheet Search Session eq 1 and Type Eq Initial Consult
- Swd April 3 2017 ICG Flowsheet Search Session eq 1 Calendar 2017 Quarter #1
- Swd April 4 2017 ICG Flowsheet Search Session eq 1 and Type Eq Initial Consult Calendar 2017 First Quarter
- Swd ICG April 28 2017 One Year Stats Diagnoses ICD 10 Crystal Report
- Swd ICG April 28 2017 One Year Stats Diagnoses ICD 9 Crystal Report
- Swd ICG August 16 2016 Diagnosis Profile
- Swd ICG August 18 2016 STFM Analysis Get PHQ Scores All Patients June thru August 2016
- Swd ICG August 18 2016 STFM Analysis Get PHQ Scores All Patients March thru May 2016
- Swd ICG August 18 2016 STFM Analysis Get PHQ Scores All Patients
- Swd ICG Jan 13 2017 Diagnosis Profile
- Swd ICG Jan 13 2017 Diagnosis Profile to date
- Swd ICG June 20 2016 Encounter Provider Search
- Swd ICG June 26 2017 Encounter Provider Search
- Swd ICG March 17 2017 Diagnosis Profile Data Only
- Swd ICG May 25 2016 Encounter Provider Search with PHQ9 scores
- Swd ICG May 25 2016 Encounter Provider Search
- Swd ICG Nov 10 2016 Diagnosis Profile
- Swd ICG STFM Analysis Aug 2016 Diagnosis Profile Crystal Report

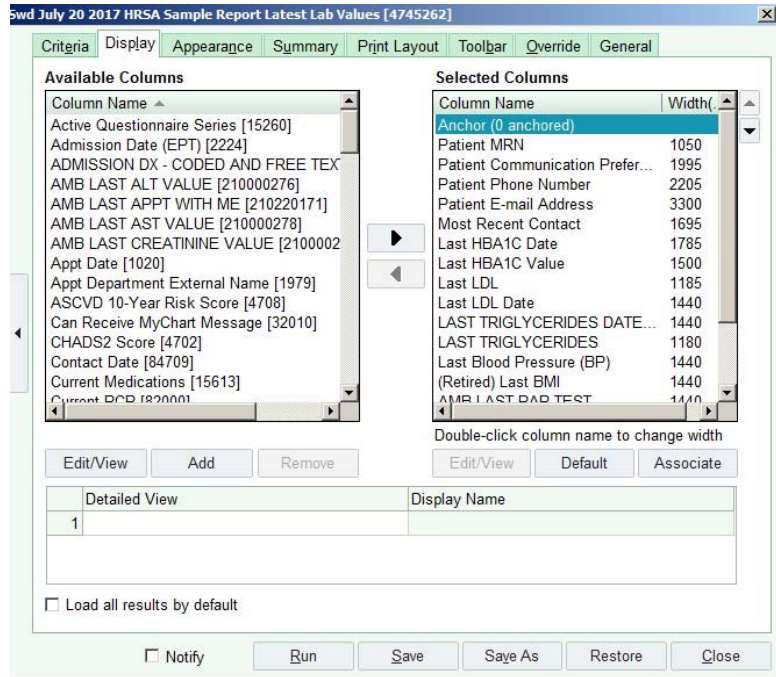
On the right side of the interface, there is a "Filters" sidebar. It includes sections for "Types" (Administration, Census, Claims, Emergency Department, Enterprise Billing, Hospital Billing, Imaging, In Basket, Inpatient, Laboratory, Obstetrics, Orders, Outpatient, Patient Criteria, Pay for Performance, Professional Billing, Referrals, Scheduling, Surgical/Procedural), "Groups", "Template Types", and "Tags". There is also a "Clear Filters" button at the bottom of the sidebar.

EPIC Report Writer Allows for Multiple Patient Search Criteria From Simple Patient Demographics To Searches by Diagnoses, Procedures – including results – Medications, and Health Maintenance Overdue



Complex Patient Data can be Displayed and Downloaded

EPIC Downloaded Excel Files are Easily Transported to SPSS/SAS for Statistical Analysis



EPIC Crystal Reports
Are also available

Diagnosis	Count	Percent	Cumulative
Anxiety - F41.1	77	21%	21%
Depression - F32.9	70	19%	40%
Anxiety and depression - F41.8	27	7%	47%
Generalized anxiety disorder - F41.1	19	5%	52%
Grief reaction - F43.21	17	5%	56%
Adjustment disorder with mixed anxiety and depressed mood - F43.23	16	4%	61%
Adjustment disorder with depressed mood - F43.21	14	4%	65%
Major depressive disorder, recurrent episode, moderate (HCC) - F33.1	9	2%	67%
Partner relational problem - Z63.0	8	2%	69%
Stress reaction - F43.0	8	2%	71%
Adjustment disorder with anxiety - F43.??	5	1%	73%

Crystal Reports are not as restrictive as Work Bench in terms of amount of data reported. Often used for YTD reports

Data Mart Reports are an Enterprise Application Maintained by ITData Mart
Reports Are Excel Pivot Tables.
They are refreshed in real time (almost). They are customizable on the fly.

The screenshot shows an Excel PivotTable with the following data:

Row Labels	Apr 2015	May 2015	Jun 2015	Grand Total
COMPLETED	3,524	3,256	3,534	10,314
COLPOSCOPY	2	1	3	6
CONSULT	1			1
GERIATRIC PATIENT	103	79	99	281
GROUP MEDICAL VISIT	5	10	11	26
HISTORY AND PHYSICAL		1		1
HOME VISIT	1	2	2	5
HOSPITAL FOLLOW UP	39	29	23	91
INITIAL PRENATAL VISIT	7	4	7	18
INTERNAL CONSULT VISIT		1		1
NEW PATIENT	66	58	70	194
NURSE VISIT	122	109	107	338
NUTRITION	6	4	7	17
PHYSICAL	320	318	360	998
POSTPARTUM	8	6	3	17
PRENATAL VISIT	48	59	54	161
PROCEDURE	27	24	36	87
RETURN CARE EXTENDED		1		1
RETURN PATIENT	1,500	1,457	1,565	4,522
RETURN VA SPECIAL		1		1
SAME DAY NEW	46	37	49	132
SAME DAY RETURN	1,018	852	946	2,816
SIGMOIDOSCOPY			1	1
TREADMILL	2	1	2	5
URGENT	60	60	54	174
WELL CHILD	141	140	132	413
WOUND CHECK	2	3	2	7
Grand Total	3,524	3,256	3,534	10,314

The PivotTable Field List on the right shows the following configuration:

- Show fields related to: (All)
- Report Filter: Department
- Column Labels: Fiscal Month
- Row Labels: Appointment Status, Appointment Type
- Values: Appointments

Data Mart Pivot Tables
allow you to select variables
as filters and control the
way the data is laid out

Data Mart Reports Include a plethora of visit and financial information

1					
2	Department	(Multiple Items)			
3	Date.Fiscal Month	(Multiple Items)			
4					
5	Appointments	Column Labels			
6	Row Labels	CANCELED	COMPLETED	NO SHOW	Grand Total
7	COLPOSCOPY	2	6	1	9
8	CONSULT		1		1
9	GERIATRIC PATIENT	96	281	15	392
10	GROUP MEDICAL VISIT	46	26	7	79
11	HISTORY AND PHYSICAL		1		1
12	HOME VISIT		5	2	7
13	HOSPITAL FOLLOW UP	57	91	26	174
14	INITIAL PRENATAL VISIT	9	18	6	33
15	INTERNAL CONSULT VISIT		1		1
16	NEW PATIENT	92	194	49	335
17	NURSE VISIT	72	338	49	459
18	NUTRITION	21	17	20	58
19	PHYSICAL	511	998	159	1,668
20	POSTPARTUM	3	17	7	27
21	PRENATAL VISIT	53	161	25	239
22	PROCEDURE	53	87	16	156
23	RETURN CARE EXTENDED		1		1
24	RETURN PATIENT	2,040	4,522	863	7,425
25	RETURN VA SPECIAL	2	1		3
26	SAME DAY NEW	23	132	8	163
27	SAME DAY RETURN	444	2,816	189	3,449
28	SIGMOIDOSCOPY	7	1		8
29	TREADMILL	6	5	4	15
30	URGENT	21	174	11	206
31	WELL CHILD	183	413	184	780
32	WOUND CHECK	3	7	2	12
33	Grand Total	3,744	10,314	1,643	15,701

Hospital data is available as well as outpatient Data can be split by any number of variables*

	A	B
1	Date.Fiscal Hierarchy	(Multiple Items)
2	Provider Referring.Provider	LORD JR, RICHARD WILLIAM
3	Date.Fiscal Month	(Multiple Items)
4	Department	All
5		
6	Row Labels	Charge Amount
7	N	\$31,187.50
8	APPOINTMENT	\$1,083.00
9	HOSPITAL ENCOUNTER	\$18,219.75
10	INITIAL CONSULT	\$1,501.00
11	Initial Prenatal	\$29.00
12	Office Visit	\$9,559.75
13	POST-OP	\$0.00
14	Procedure visit	\$561.00
15	Return Patient	\$234.00
16	Routine Prenatal	\$0.00
17	Y	\$106,221.05
18	APPOINTMENT	\$2,820.00
19	CLINICAL SUPPORT	\$1,018.65
20	HOSPITAL ENCOUNTER	\$53,816.20
21	Infusion	\$0.00
22	INITIAL CONSULT	\$10,413.10
23	Lab Visit	\$380.00
24	Office Visit	\$35,259.10
25	POST-OP	\$240.00
26	Procedure visit	\$1,454.00
27	Return Patient	\$820.00
28	Grand Total	\$137,408.55

* For example, IC vs Non-IC patient

Data Mart Reports
Can also show Individual Patient Data

	A	B	C	D	E	F
1						
2	Date.Fiscal Hierarchy	(Multiple Items) <input type="checkbox"/>				
3	Department	(Multiple Items) <input type="checkbox"/>				
4						
5	Charge Amount	Column Labels <input type="checkbox"/>				
6	Row Labels	<input type="checkbox"/> Apr 2015	May 2015	Jun 2015	Grand Total	
7	BROWN, MORDECAI		\$296.00		\$296.00	
8	CASSATT, MARY		\$459.00		\$459.00	
9	COBB, TY			\$296.00	\$296.00	
10	DIMAGGIO, JOE	\$592.00			\$592.00	
11	JACKSON, SHOELESS JOE	\$292.40	\$508.80		\$801.20	
12	LAUTREC, TOULOUSE			\$296.00	\$296.00	
13	MANET, EDOUARD	\$109.00	\$392.00		\$501.00	
14	MONET, CLAUDE		\$109.00	\$0.00	\$109.00	
15	RUTH, BABE			\$218.00	\$218.00	
16	VAN GOUGH, VINCENT	\$397.00			\$397.00	

Data for 3/23/2016 - 3/22/2017

Item	Appts	Patient Distinct	Percent
Age¹			
1-6	18	17	1.74
7-12	39	28	2.86
13-17	74	39	3.99
18-65	1,741	781	79.86
66≤	282	115	11.76
Sex¹			
Female	1,545	716	73.21
Male	610	262	26.79

1. Appointments = 2,155 appointments; Patient Distinct Count = 978; 1 missing = .1%

Psychological/SDOH Scores for Enrolled Patients – Most Recent Assessments

Data for 3/23/2016 - 3/22/2017

Item	PHQ-9	GAD-7	SDOH
N	662	659	236
Mean	12.16	10.66	4.09
Median	12.00	11.00	3.00
SD	6.50	6.23	4.42
Minimum	0	0	0
Maximum	27	21	20

Scores are current as of 5/3/2017

PHQ9 Scores by Number of Therapy Sessions

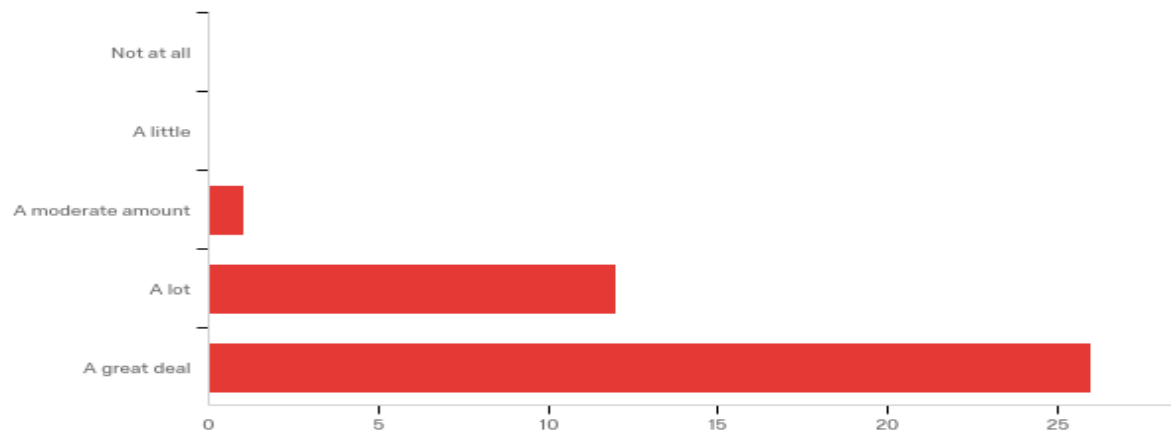
Session	N	Mean	SD
1	286	12.20	6.28
2-5	269	12.48	6.64
> 5	81	10.54	6.54

Data for 3/23/2016 - 3/22/2017

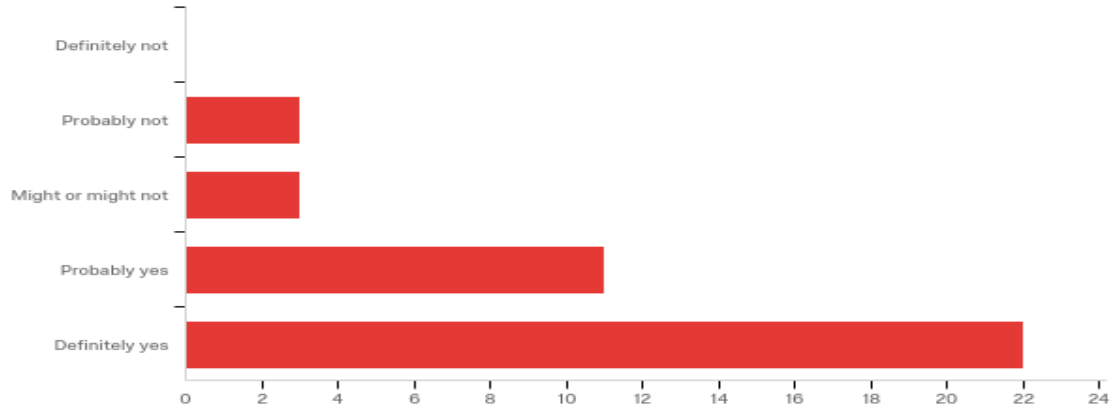
Item	Patient Distinct	Percentage
Anxiety – F41.9	206	19.51
Anxiety and depression – F41.9, F32.9	88	8.01
Depression – F32.9	74	4.63
Other Depression – F32.89	67	3.68
Stress – F43.9	43	3.49
Generalized Anxiety Disorder – F41.1	42	3.73
Grief Reaction – F43.20	36	1.97
Bipolar I Disorder – F31.9	10	0.95

343 diagnoses

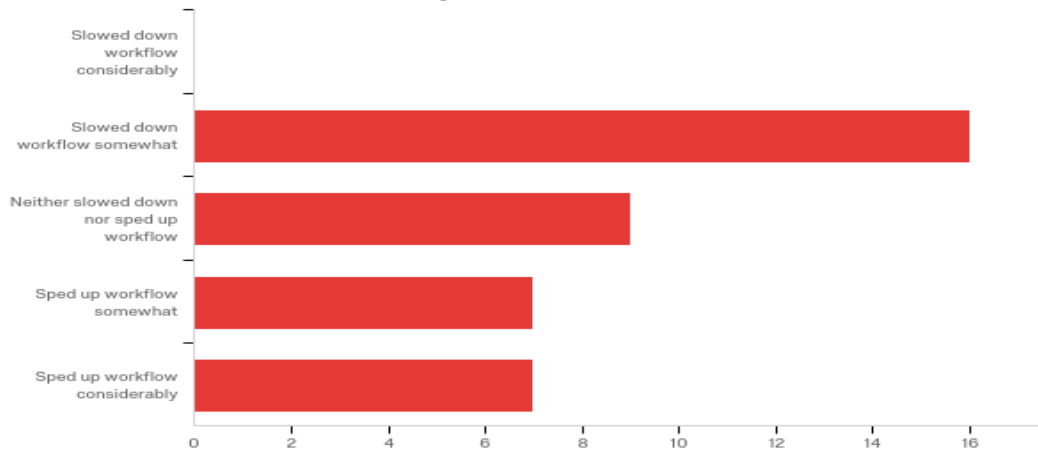
How helpful have the BH services been for your patients?



Do you think having a BH service has improved your willingness to recognize, assess, and treat BH problems of your patients?



When you have included a BHP in your workflow...affected speed of visit?



Lessons Learned

- Identify team members – interdisciplinary
- Understand roles/responsibilities ('buckets')
- Schedule meetings and communicate
- Address partners HIPPA concerns
- How do you get data in? Data out?
- Shared vision*