Population Management at a Clinic for Individuals Affected by Homelessness: Taking Steps Towards Collaborative Care

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disclosures: none

McMicken Integrated Care

40 east mcmicken avenue
OTR a.k.a. over-the-rhine

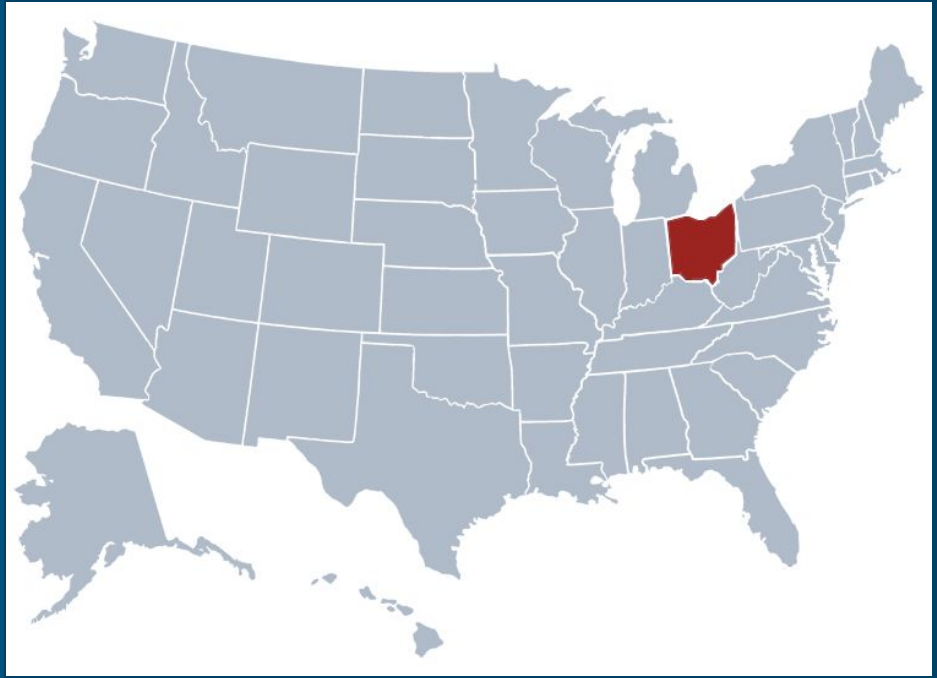

Photo credit: https://www.50states.com/ohio.htm

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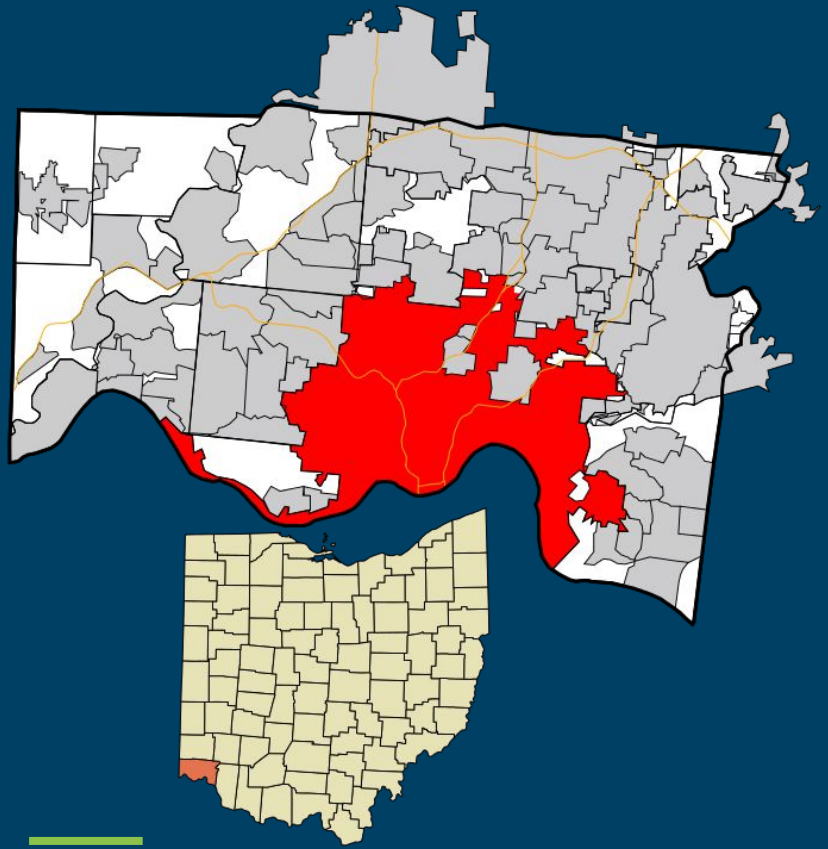

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McMicken Integrated Care

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OTR a.k.a. over-the-rhine

Providing medical and psychiatric care to individuals affected by homelessness

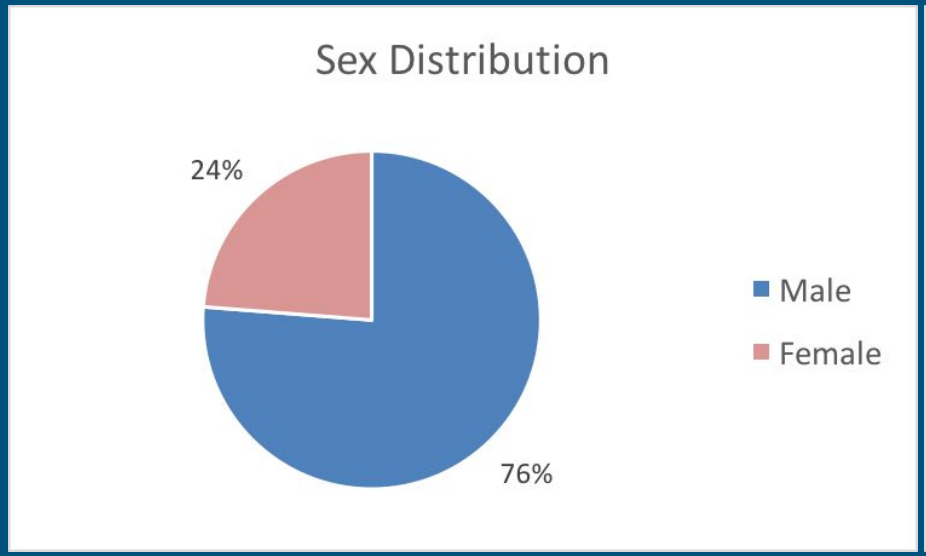
Member of National Healthcare for the Homeless Council

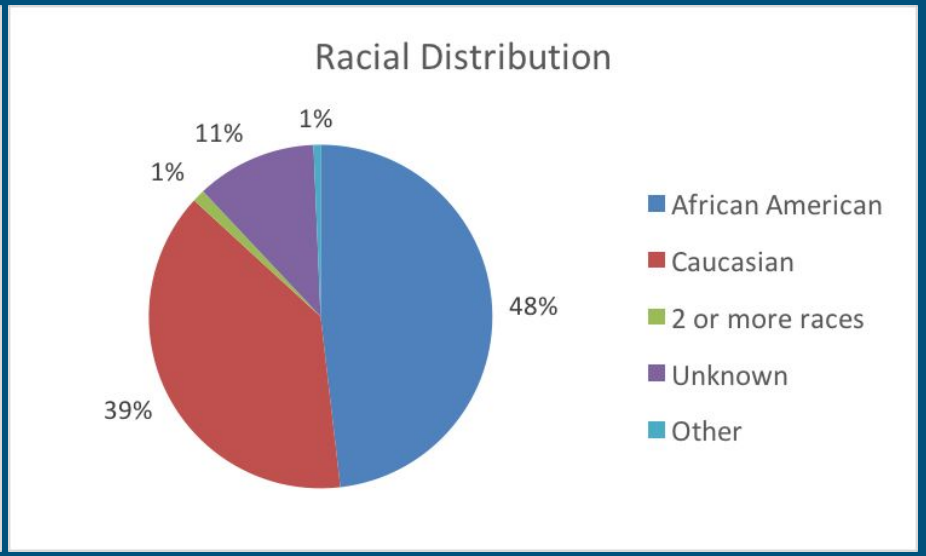
Van operating since 1987

Clinic established in 2012

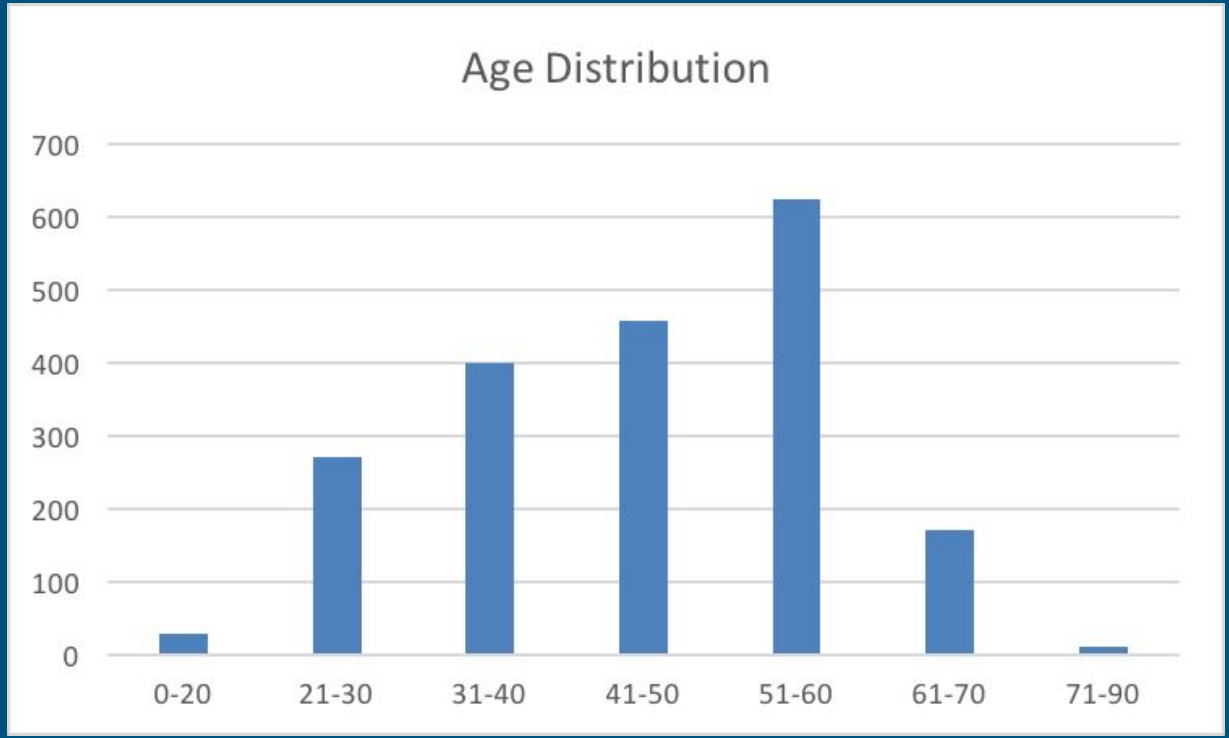
Formal psychiatric services since 2015

McMicken: clinic population demographics





McMicken: clinic population demographics



Our Patients Are Disproportionately Affected By Severe Mental Illness

(Fazel S, Khosla V, Doll H, Geddes J. The prevalence of mental disorders among the homeless in western countries: a systematic review and meta-regression analysis. PLoS Med 2008;5(12):e225)

USPSTF
depression screening
recommendation

PHQ9

[a little digression, regarding integrated care from the APA @ psychiatry.org]

Integrated care: general term for any attempt to fully or partially blend behavioral health services with general and/or specialty medical services

Quality integrated care: allows your primary care system to know who is not well with their mental health, engage patients, and proactively manage their care with a team until they improve or are referred to more intensive services

[little digression, continued...]

Collaborative care: a unique, evidence-based model with 5 principles:

1) patient-centered care team

2) population-based care

3) measurement-based outcomes

4) evidence-based care

5) accountable care

Archer, J, Bowe, P, Gilbody, S Lovell K, Richards, D, Gask, L, Dickens, C, Coventry, P (2012) Collaborative Care for depression and anxiety problems (Review) *Cochrane Databse Syst Rev, (10)*

[key components of collaborative care]

1) patient-centered care team

- Care manager
- Psychiatrist
- Behavioral health specialist
- Primary care physician
- Medical assistant

Image credit: http://www.shelleymanorsurgery.co.uk/wp-content/uploads/Team.png

[key components of collaborative care]

2) population-based care: define the panel

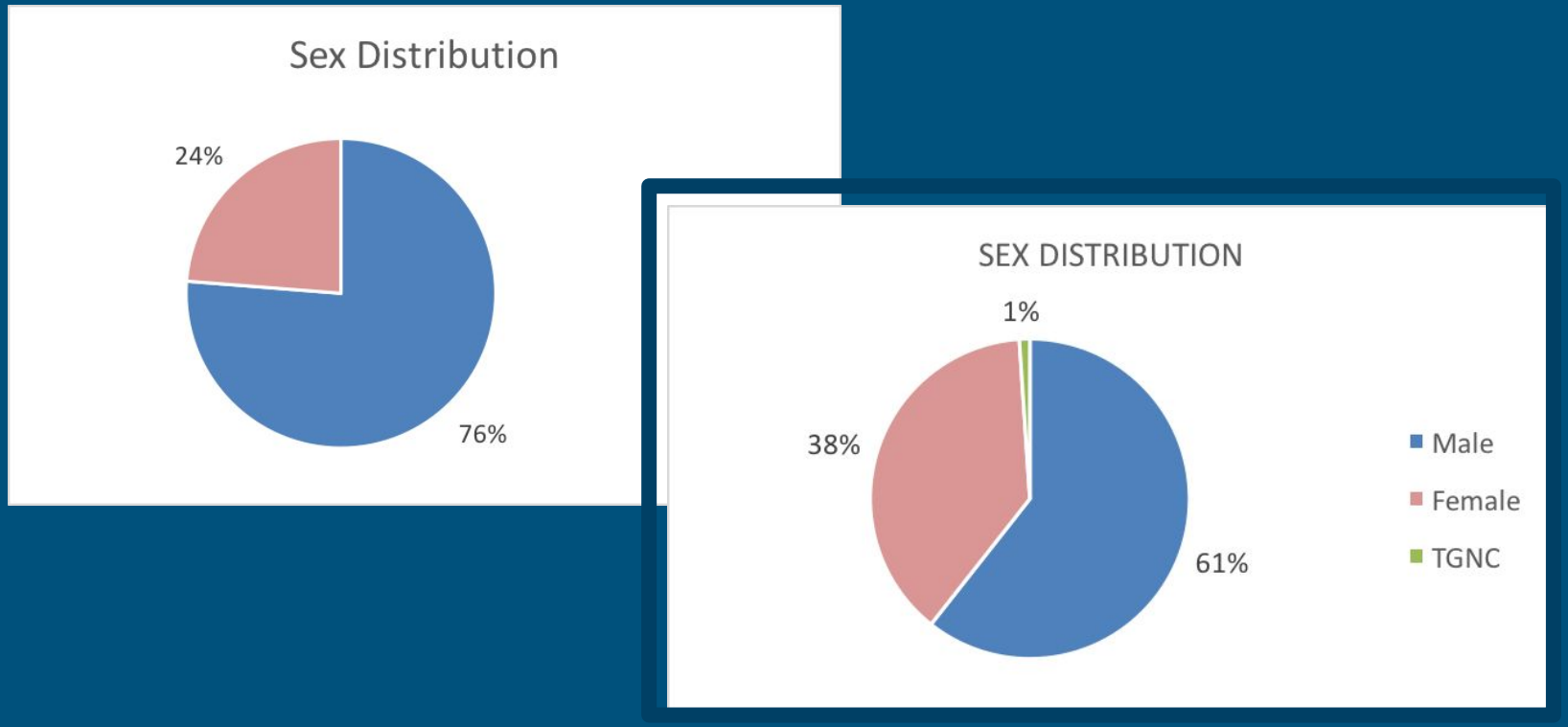
we developed a registry of patients

	Patient Information		Enrollment Status and Actions				Contacts				Measurements				Contact Notes and Psychiatric C
2	MRN	Name	Treatment Status	Display (Hide past tx episodes or view only the most recent contact)	Tickler	Episode Number (Episode of care/tx)	Follow-up Contact Number	Date Follow-up Due	Actual Contact Dates	Type of Contact	PHQ-9 Score (Target is < 5 within 5-7 months of initial elevated PHQ-9)	% Change in PHQ-9 score (Target is -50% within 5-7 months of initial elevated PHQ-9)	GAD-7 Score (Target is < 10 within 5-7 months of initial elevated GAD-7)	% Change in GAD-7 score (Target is -50% within 10 weeks of tx initiation or change)	Care Manager Contact Notes and Flag for Psychiatric Case Review (Include notes about appointment reminder c referrals to specialty services, etc.)
81	7698	[redacted]	Active	DESELECT to hi				8/1/2017			.		.		
82	7698	[redacted]	Active	DESELECT to hi				########			.		.		
83	4663	[redacted]	Active	Show initial a		1	Current Episode Initial Assessment	2-week follow-up schedule	10/4/16		7		No score		affective
84	4663	[redacted]	Active			1	Initial Assessment		10/4/16	In person at clinic	7	0%	.		
85	4663	[redacted]	Active	DESELECT to hi					11/29/16	In person at clinic	.		.		
96	4663	[redacted]	Active	Show only mos	Past Due			5/2/2017			.		.		
97	4663	[redacted]	Active	Show only mos	Contact due today			########			.		.		
98	4663	[redacted]	Active	DESELECT to hi				########			.		.		
99	178	[redacted]	Active	Show initial a		2	Current Episode Initial Assessment	2-week follow-up schedule	3/7/17		24		No score		affective
100	178	[redacted]	Active	DESELECT to hi		1	Initial Assessment		11/29/16	In person at clinic	27	13%	.		
101	178	[redacted]	Active	DESELECT to hi		1	1		12/13/16	In person at clinic	24	0%	.		
102	178	[redacted]	Active	DESELECT to hi		1	2		12/27/16	In person at clinic	.		.		
103	178	[redacted]	Active	DESELECT to hi		1	3		2/21/17	In person at clinic	.		.		
104	178	[redacted]	Active	Show only mos		2	Initial Assessment		3/7/17	In person at clinic	24	0%	.		
108	178	[redacted]	Active	Show only mos	Past Due			5/2/2017			.		.		

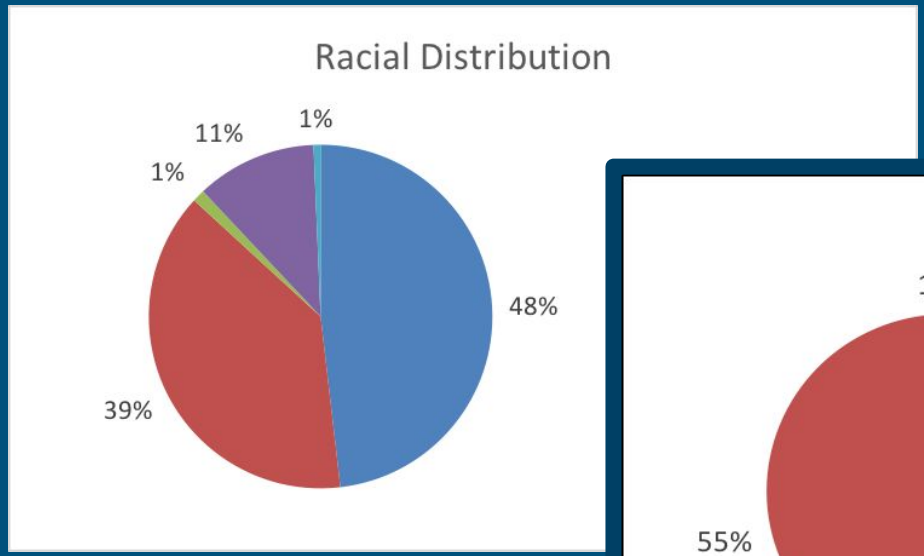
Disclaimer | Patient Tracking | Clean List of Encounters | PreIntervention | PostIntervention | CHI SQUARE | DATA | Demograp

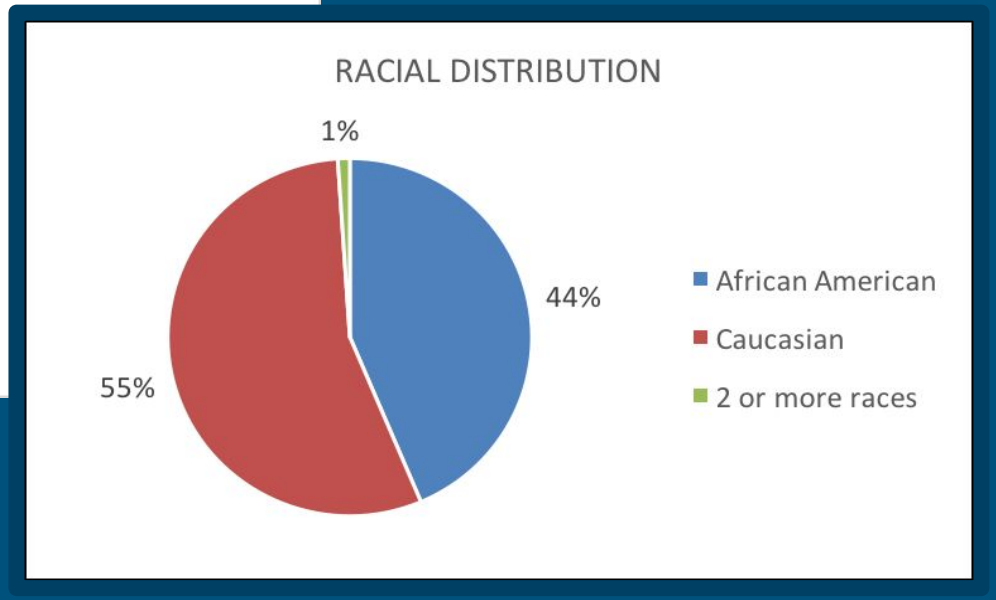
Ready Filter Mode 100%

McMicken: psychiatric registry patients

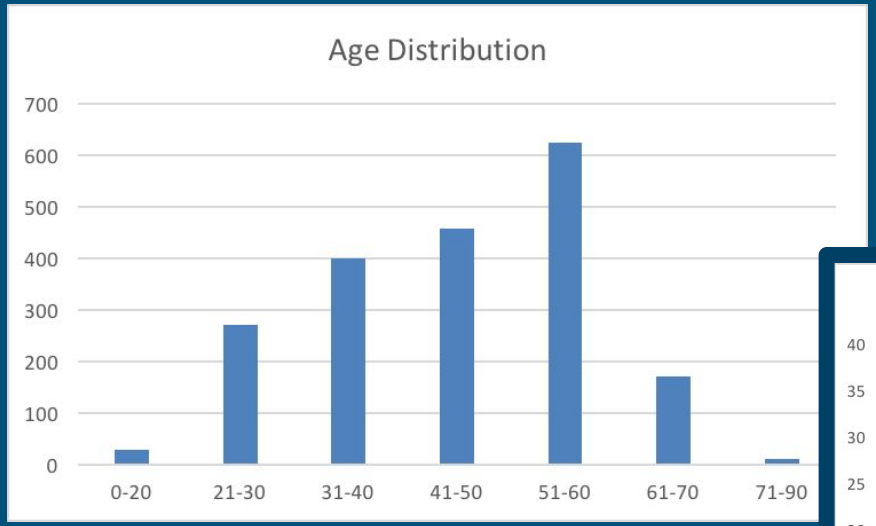


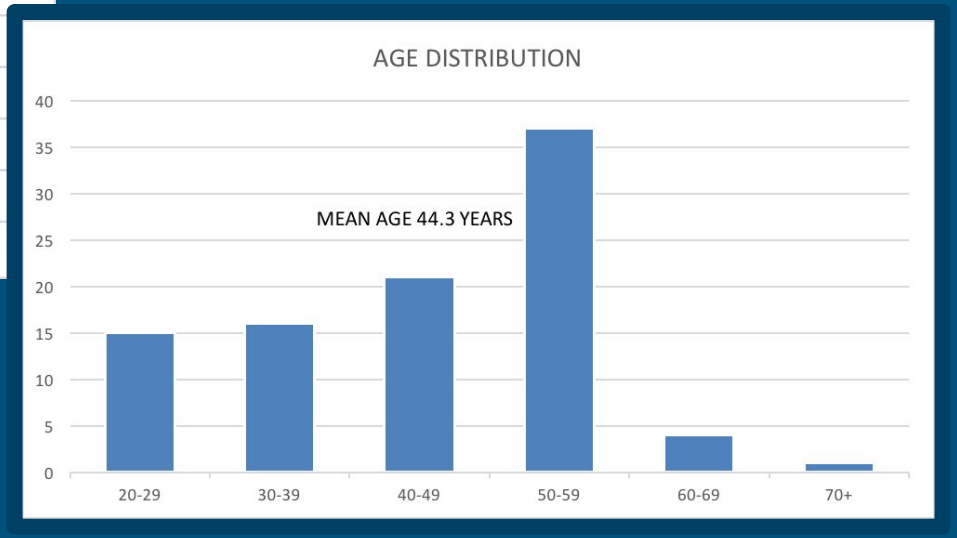
McMicken: psychiatric registry patients



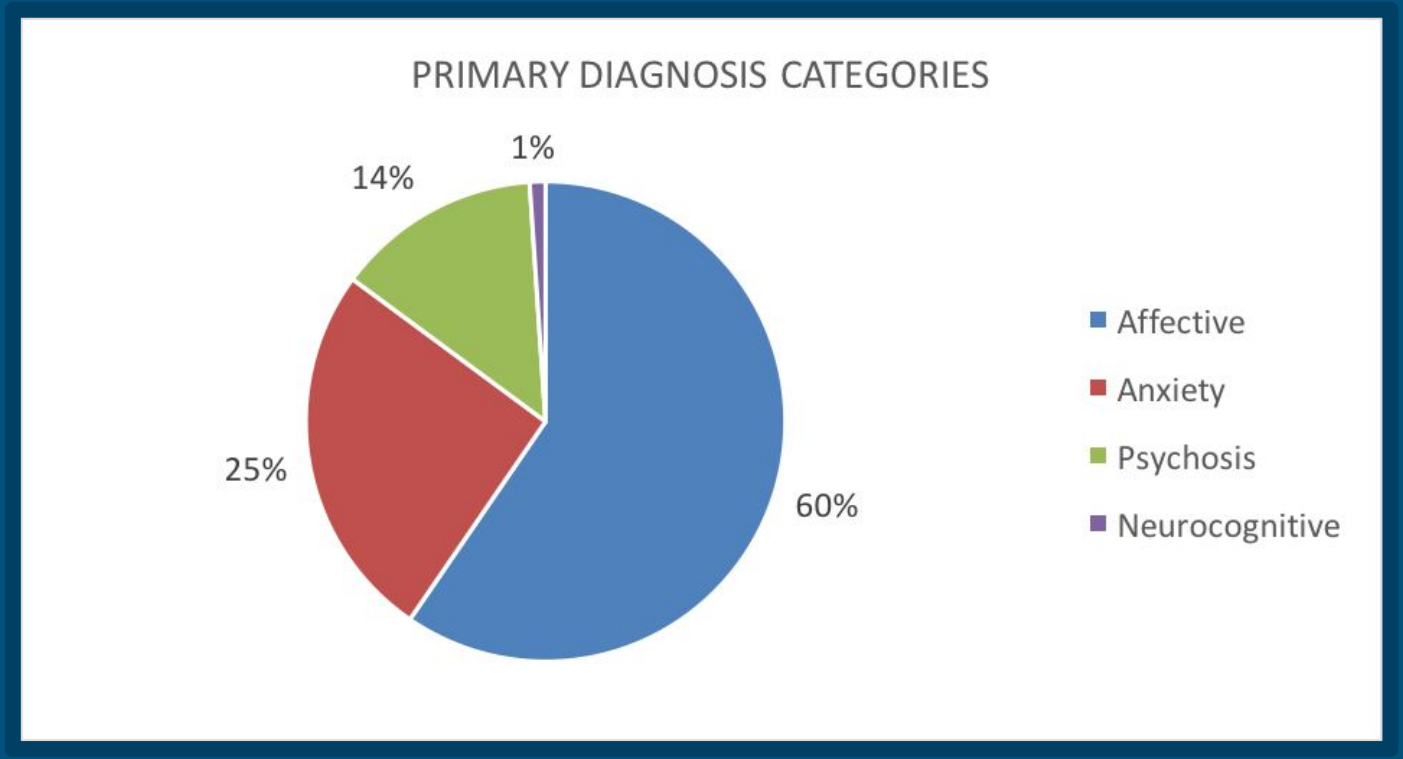


McMicken: psychiatric registry patients, cont.



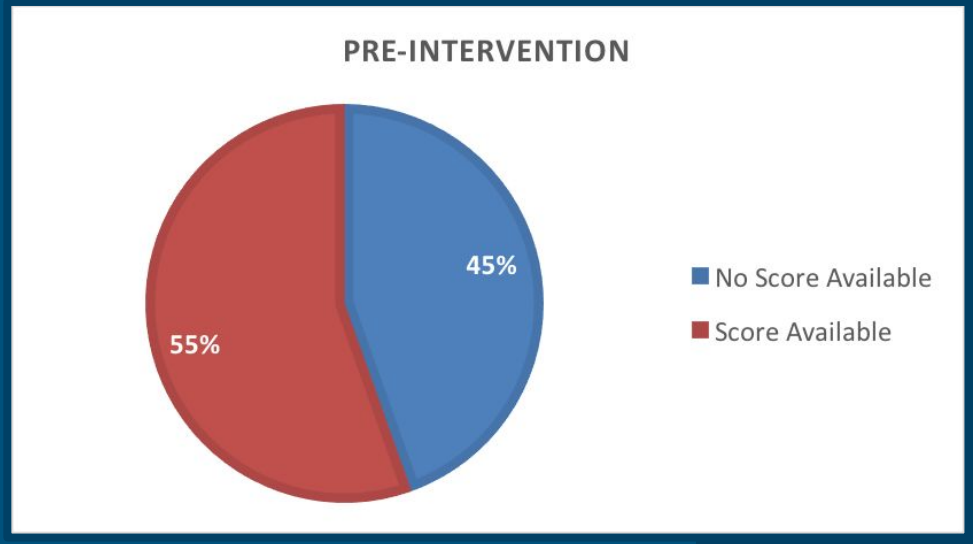


Diagnostic Categories: primary diagnoses



3) measurement-based outcomes

PHQ9

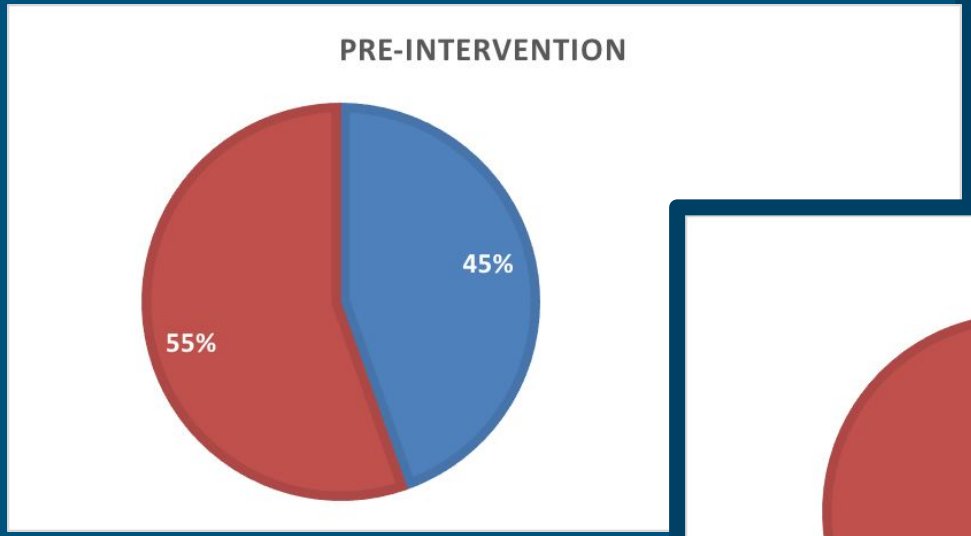


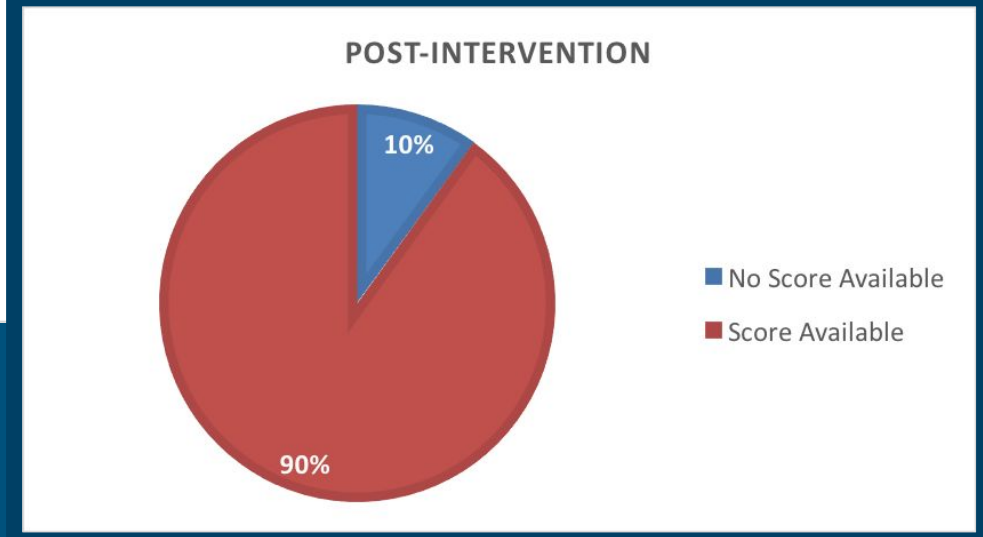
09.1.2016 - 12.30.2016

Quality Improvement Plan:

Implement
a standardized PHQ9 recording protocol
to better monitor response to treatment

M	Type	Units	04/05/2017	04/04/2017	03/07/2017	02/21/2017	01/04/2017	12/13/2016	12/07/2016	Range
	Platelets	x10E3/uL			264				349	150-379
	Neutrophils	%			54				51	...
	Lymphs	%			29				30	...
	Monocytes	%			7				8	...
	Eos	%			10				10	...
	Basos	%			0				1	...
	Neutrophils (Absolute)	x10E3/uL			3.1				2.9	1.4-7.0
	Lymphs (Absolute)	x10E3/uL			1.7				1.7	0.7-3.1
	Monocytes(Absolute)	x10E3/uL			0.4				0.4	0.1-0.9
	Eos (Absolute)	x10E3/uL			0.6 (H)				0.6 (H)	0.0-0.4
	Baso (Absolute)	x10E3/uL			0.0				0.0	0.0-0.2
	Immature Granulocytes	%			0				0	...
	Immature Grans (Abs)	x10E3/uL			0.0				0.0	0.0-0.1
	CCP Antibodies IgG/IgA	units			4					0-19
	Creatine Kinase,Total,S	U/L			48					24-173
	Ferritin, Serum	ng/mL			91				15	15-150
	Hemoglobin A1c	%	5.3							4.8-5.6
	Cholesterol, Total	mg/dL	199							100-199
	Triglycerides	mg/dL	96							0-149
	HDL Cholesterol	mg/dL	71							>39
	VLDL Cholesterol Cal	mg/dL	19							5-40
	LDL Cholesterol Calc	mg/dL	109 (H)							0-99
	Magnesium, Serum	mg/dL							2.0	1.6-2.3
	RA Latex Turbid.	IU/mL			<10.0					0.0-13.9
	Sedimentation Rate-Wes	mm/hr			8					0-32
	PHQ9 Score	Score		14		4	2	10		
	TSH	uIU/mL			3.460				7.990 (H)	0.450-4.500
	T4,Free(Direct)	ng/dL			1.29				1.03	0.82-1.77
	TSH	uIU/mL					4.420			0.450-4.500

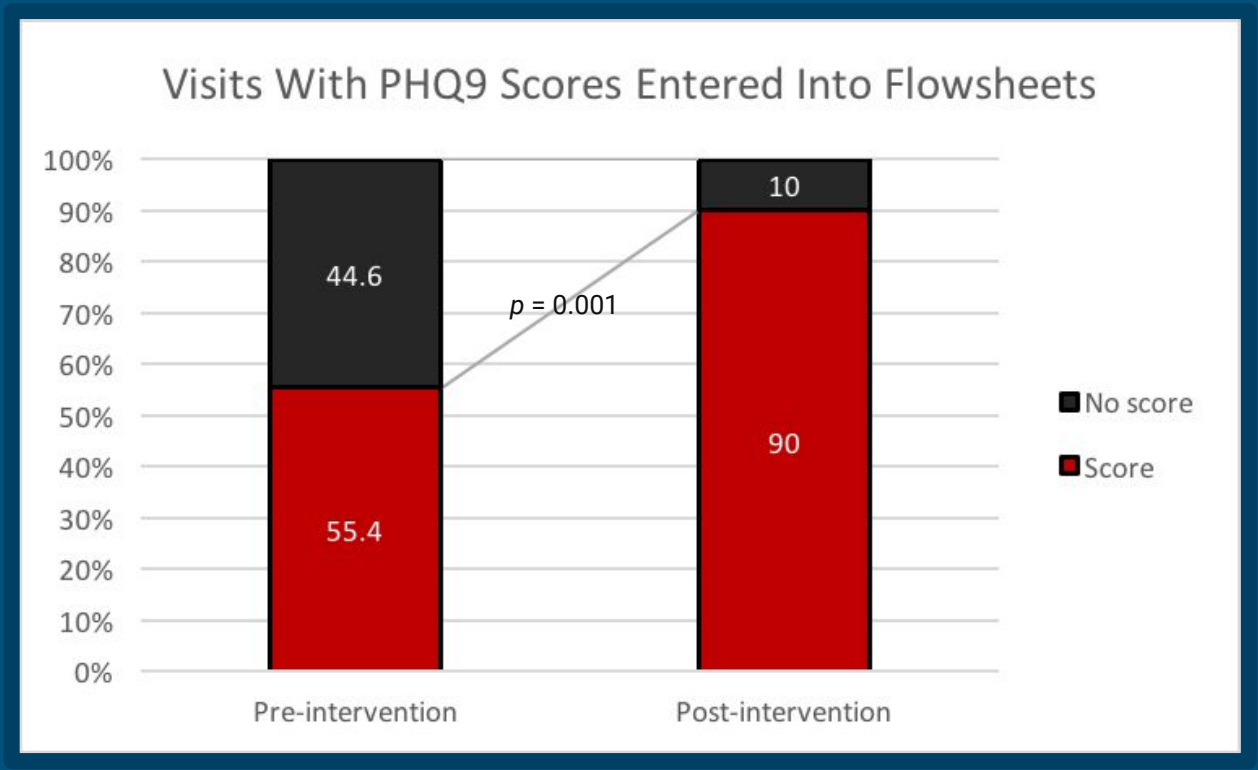




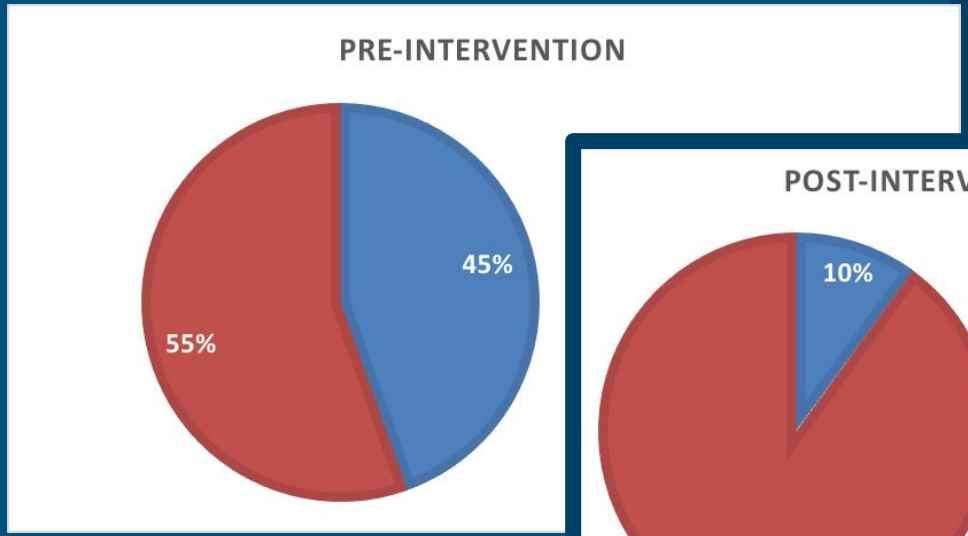
post-intervention

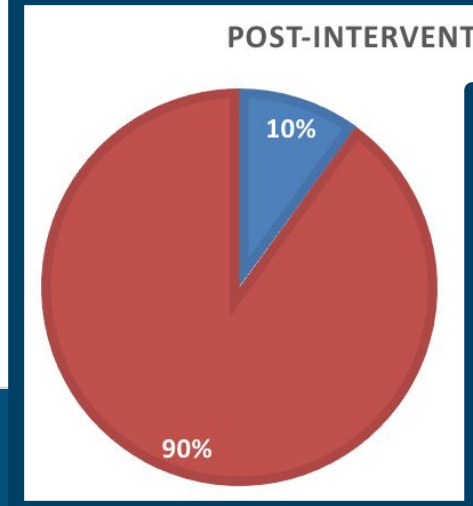
02.28.2017 - 04.04.2017

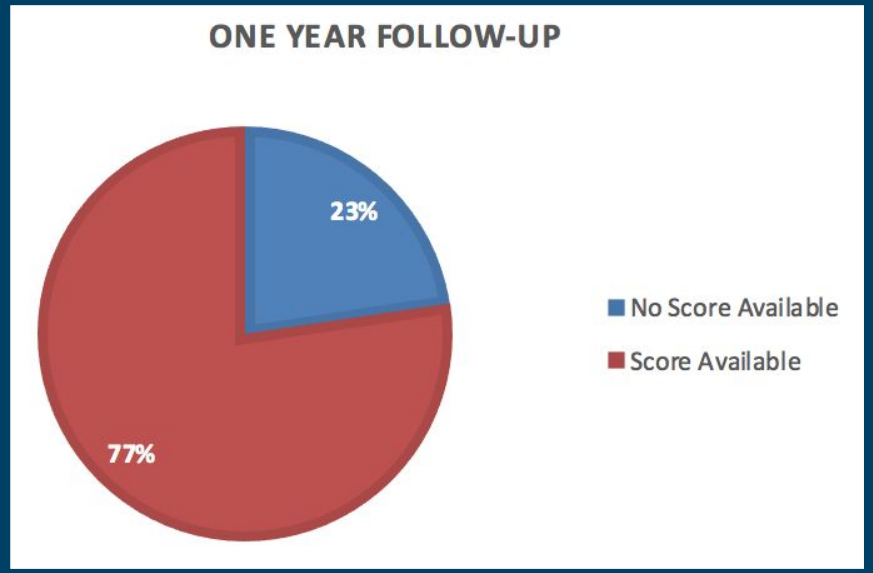
there WAS a difference: chi-squared, $p = 0.001$



"thanks Harini & Fabiano & Dr. Chris White"







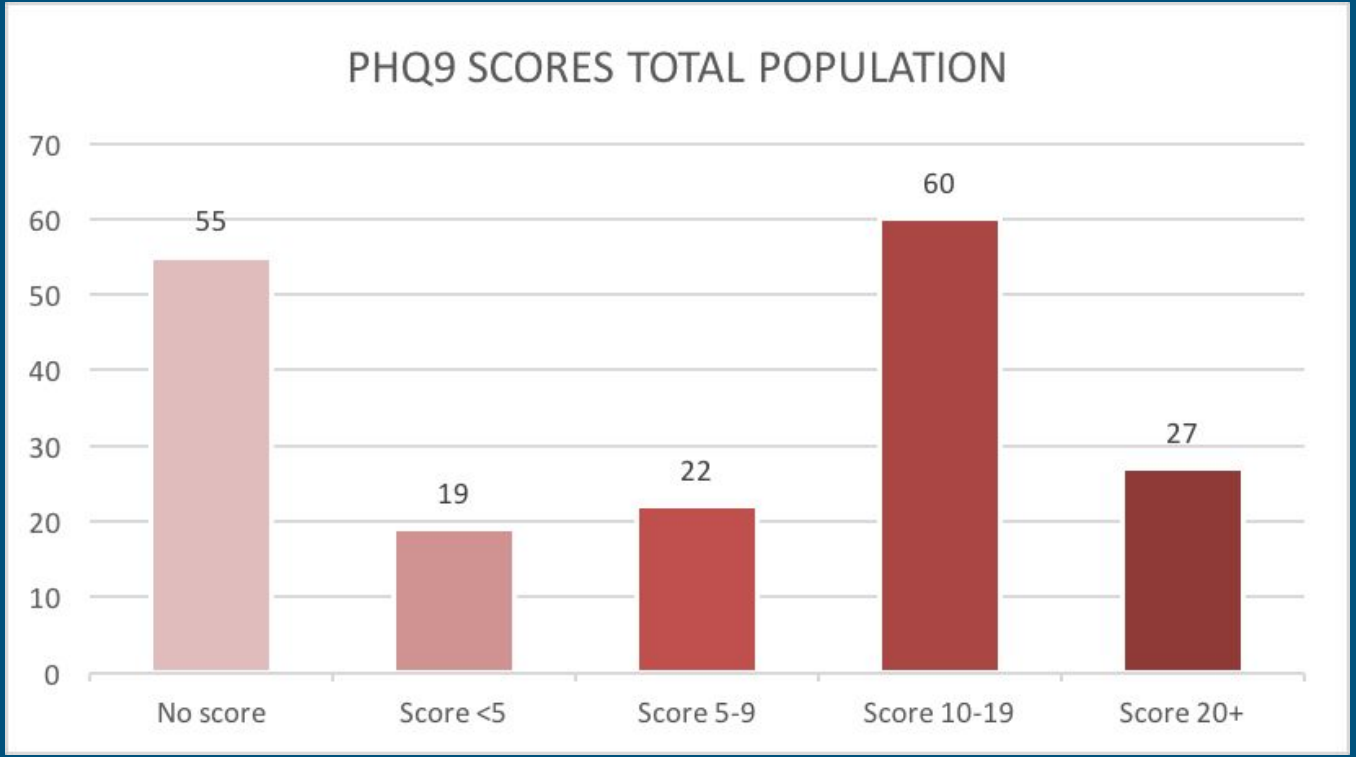
one-year follow-up

08.22.2017 - 04.03.2018

4) evidence-based care

[… next QI project]

PHQ9 scores of our patients



Limitations

Duration of data acquisition - “snapshot”

Seasonal component - autumn & winter vs. spring

Normal population assumption - possible bias

Incorrect data scoring - validity

References

American Psychiatric Association, Academy of Psychosomatic Medicine. (2016). Report: *Dissemination of Integrated Care Within Adult Primary Care Settings: The Collaborative Care Model*. Retrieved from https://www.psychiatry.org/

Archer, J, Bowe, P, Gilbody, S Lovell K, Richards, D, Gask, L, Dickens, C, Coventry, P (2012) Collaborative Care for depression and anxiety problems (Review) *Cochrane Databse Syst Rev, (10)*

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