



Clinical Safety & Effectiveness

Cohort # 22

**Team 8**

Data for Effective Equity ACTION-PLANS



UT Health

San Antonio

Center for Patient Safety  
& Health Policy

Educating for Quality Improvement & Patient Safety

THE UNIVERSITY OF TEXAS  
MD ANDERSON  
CANCER CENTER  
*Making Cancer History®*

# D.E.F.E.A.T ( DATA FOR EFFECTIVE EQUITY ACTION-PLANS) DISPARITIES PROJECT

# THE TEAM

## Primary team

- Michelle Ogunwole, MD Internal Medicine Chief Resident Quality and Safety (CS&E participant)
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## Consultants:

- Carlos Jaen MD PhD, Chair, Department of Family Medicine
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- Kenyatta Lee MD, Chief Quality Officer UT Medicine
- Timothy Barker MD, Senior Director, Medical Information for UT Medicine
- Amelie Ramirez DrPh, Director and Professor, Institute for Health Promotion Research
- David Sell, Director of Business Intelligence and Data Analytics
- Chiquita Collins PhD, Vice Dean of Inclusion and Diversity, Long School of Medicine
- Laura Manuel, Senior Software engineer, Clinical Informatics Research Division
- Gorden Whiting, Clinical Data and Workflow Analyst
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## Sponsoring Department:

- Patricia Wathen, MD, Internal Medicine Program Director
- David Dooley, MD, ACOS for Education at ALMVA

# BACKGROUND

# HEALTH DISPARITIES

DIFFERENCES IN HEALTH OUTCOMES BETWEEN GROUPS

Health Disparities exist by:

Race/ethnicity

Gender

Education

Income

Geographic location

Sexual orientation

Disability



To reduce disparities in care across patient groups, health care organizations must first understand **where disparities exist, the magnitude of the disparities and why these disparities are occurring within their patient population.**

# UNDERSTANDING THE IMPACT OF HEALTH IT IN UNDERSERVED COMMUNITIES AND THOSE WITH HEALTH DISPARITIES

May 2013

Prepared by:

NORC at the University of Chicago

Under contract to:

The Office of the National Coordinator for Health Information Technology  
Department of Health and Human Services  
200 Independence Avenue SW  
Washington, DC 20201

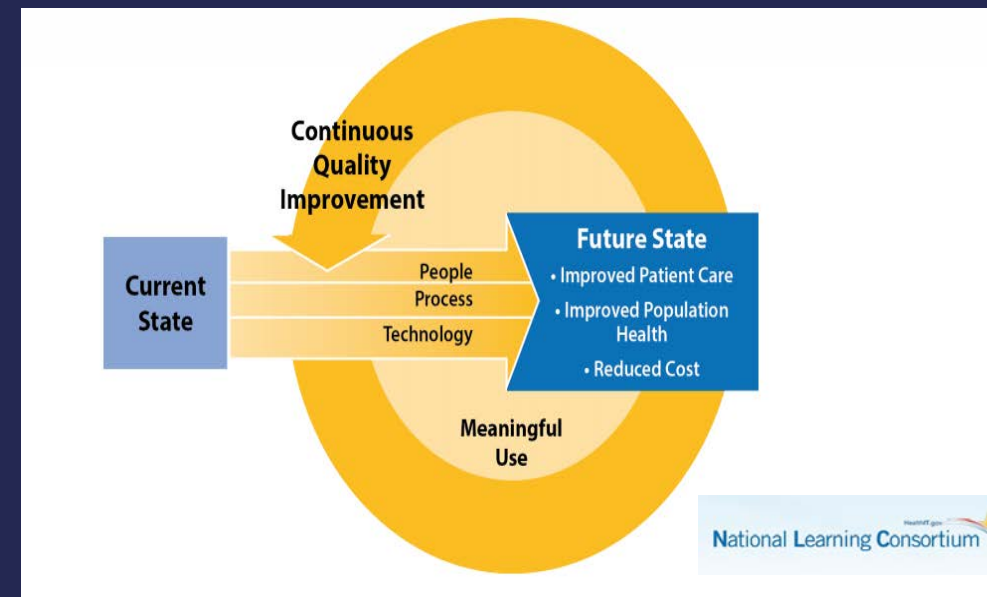
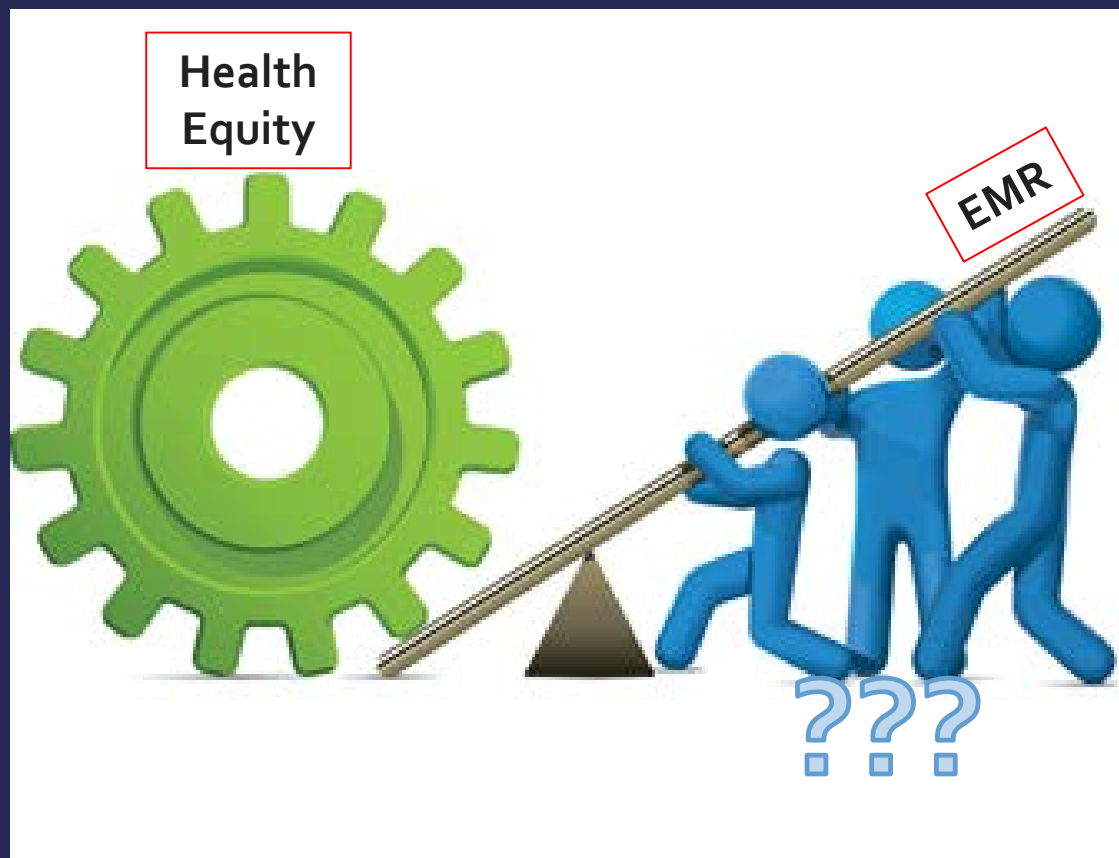
Washington, DC 20201  
300 Independence Avenue SW  
Department of Health and Human Services  
The Office of the National Coordinator for Health Information Technology  
Under contract to:

## Overview of Key Findings

### Health IT has Potential to Impact the Health of Populations Experiencing Health Disparities

Health IT can enable effective redesign of health care systems to advance elements of the “three part aim:” improving the patient experience of care (e.g., quality and satisfaction), improving the health of populations, and reducing the per capita cost of health care.<sup>10</sup> Under some circumstances, health IT used for chronic disease management can yield population health benefits. Underserved populations often have higher rates of cancer, asthma, obesity, behavioral health disorders, and other chronic diseases. Data also show that these populations are more likely to exhibit signs of poor management of chronic disease.

Applying health IT tools like ....EHRs, and EHR-based clinical decision support (CDS) can enhance patient engagement, improve patient safety, and reduce adverse events.



**EMR Equity Checklist** to evaluate and improve data collection for Health Disparities



# EVOLUTION OF AIM STATEMENT

## Global Aim:

Use the EMR to identify disparities in quality of care to inform institutional priorities



Improve the **health information elements** needed to inform leadership and set institutional priorities/action plans about health disparities for patient in the MARC primary care clinic

In order for Health IT to function at a level that can inform our leadership about health disparities, the following elements have to be met:

### ☐ Standardization of Data collection

- ☐ Data must be reported by patient
- ☐ Collected in a culturally sensitive manner
- ☐ Complete
- ☐ Accurate

### ☐ Mandate to report and act on health disparities data

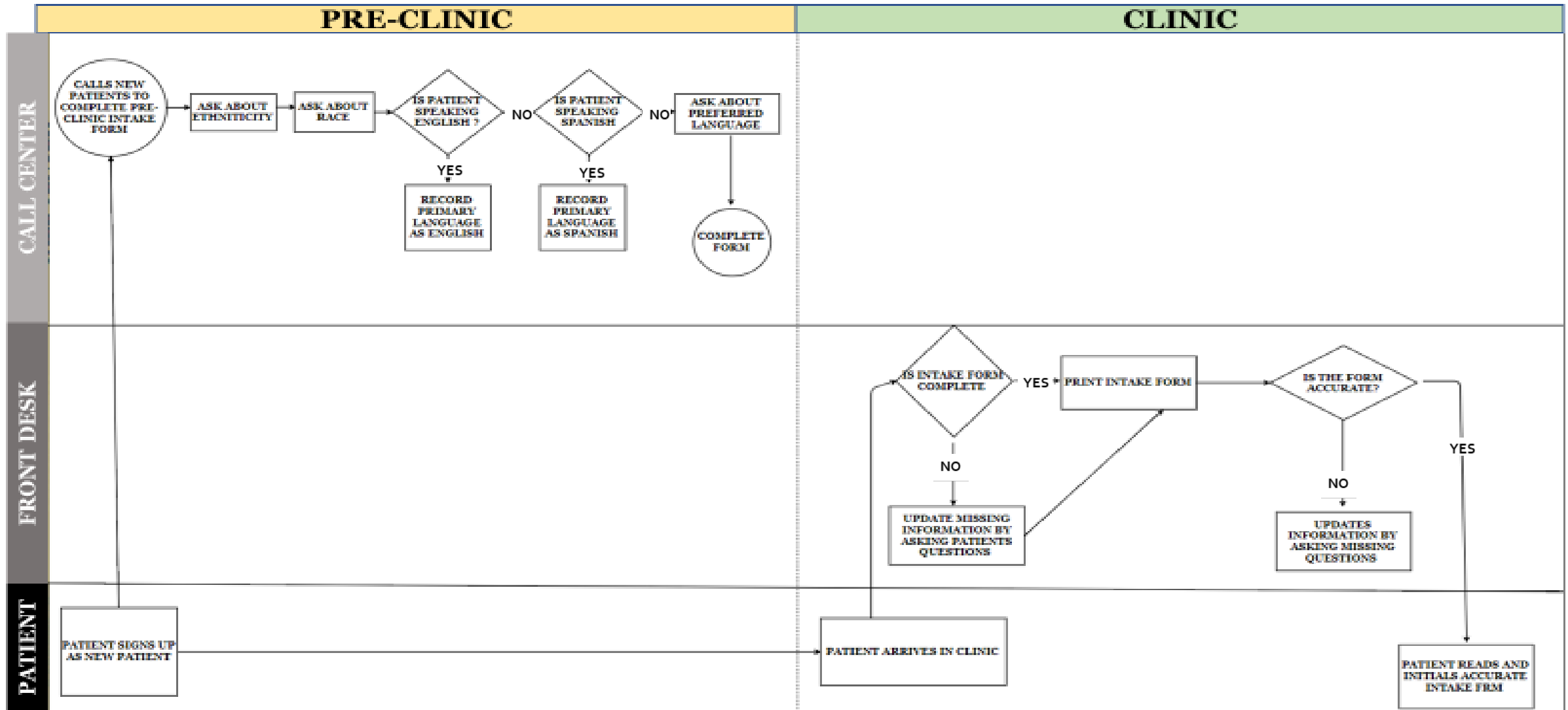
- ☐ Stratification of data to evaluate the presence of health disparities
- ☐ Mechanism to report findings to senior leadership and create action plans that address the identified disparities

### ☐ Inclusion of 'metrics that matter':

*Social determinants of health systematically captured*

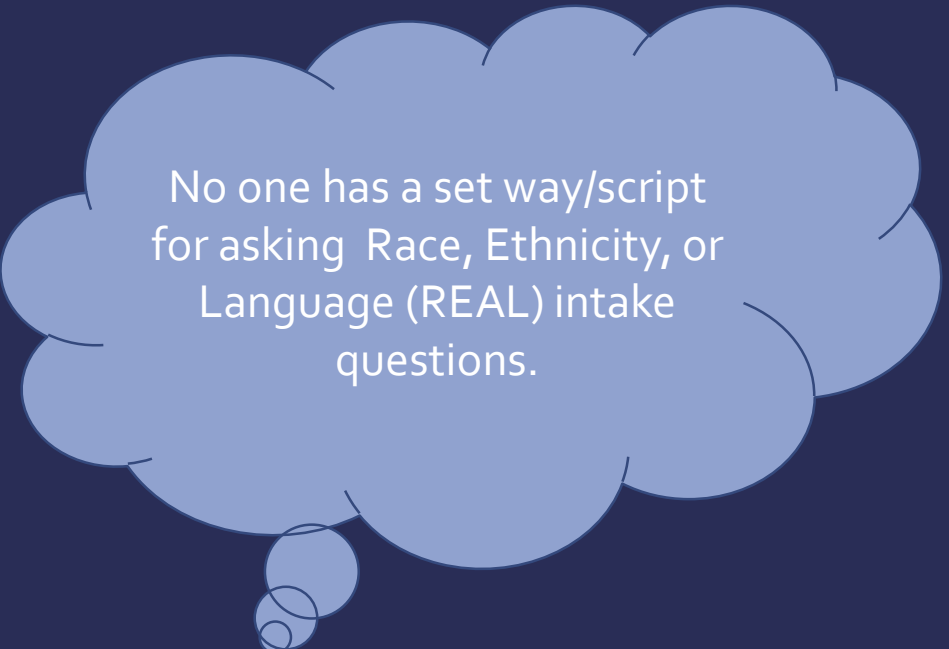
- ☐ Race/Ethnicity
- ☐ Primary language
- ☐ Health Literacy
- ☐ Education level ( surrogate for SES)
- ☐ Employment
- ☐ Financial resource strain
- ☐ Stress
- ☐ Depression
- ☐ Physical activity
- ☐ Tobacco use and exposure
- ☐ ETOH use
- ☐ Abuse of other substances
- ☐ Social connections and social isolation
- ☐ Exposure to violence: intimate partner violence
- ☐ Neighborhood and community compositional characteristics

# DESCRIPTION OF CURRENT SYSTEM

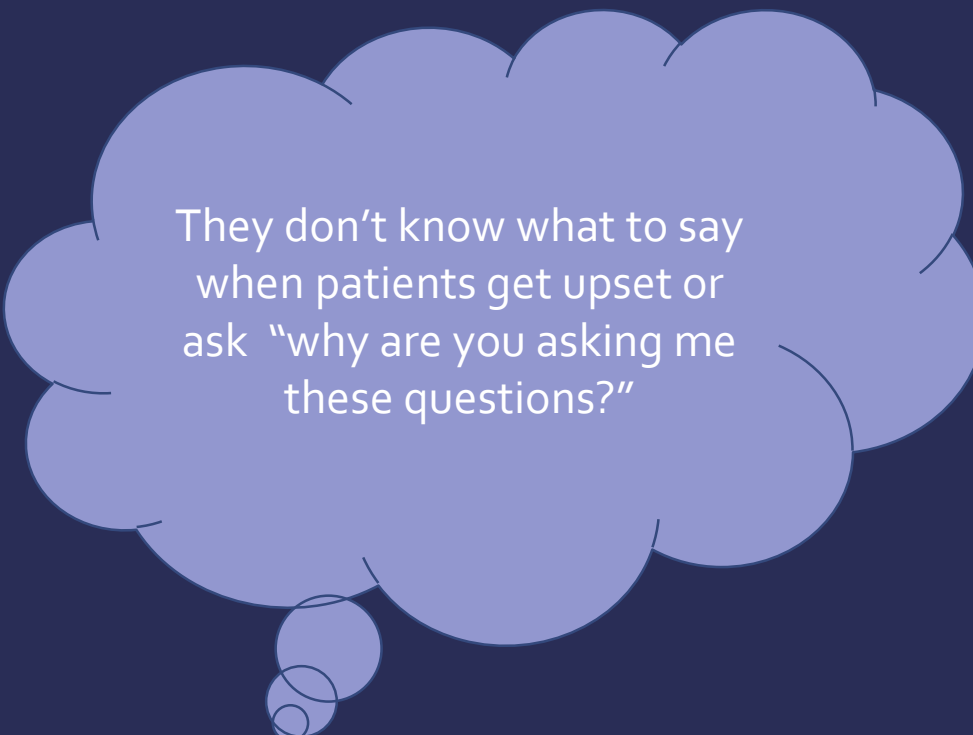


# PROCESS MAP MARC PRIMARY CARE CENTER

# BARRIERS FROM THE FRONT LINE WORKERS

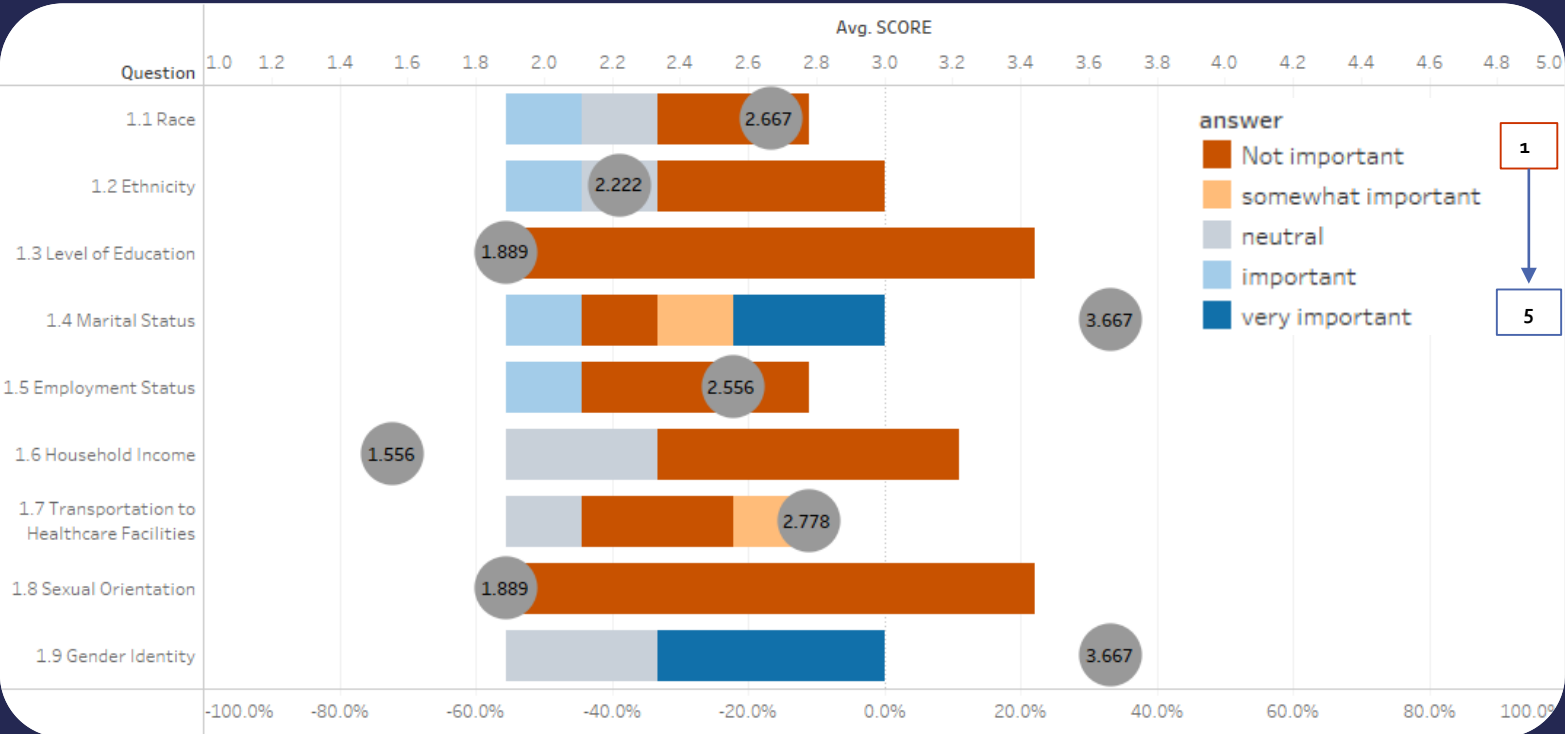


No one has a set way/script for asking Race, Ethnicity, or Language (REAL) intake questions.



They don't know what to say when patients get upset or ask "why are you asking me these questions?"

# PERSPECTIVES ON COLLECTING DEMOGRAPHIC INFORMATION



How important is collecting data about each of the following items as a part of patient EMR?

- “I really don't see why race/ethnicity is so important to ask each patient? To me we are open to see anyone so why does this matter? We are not going to turn away service pending what a person is.”
- “I don't believe level of education should be a required question that needs to be asked. Patients are coming to us for health care not for a job.”

# EPIC EMR

registration

Appt Desk PCP Claim Info Verify Pt Pt Pref Patient FYI Assoc Recs Cvg Eligibility Pull Info

Cadence, Patient Mark

**Demographics**

PCP/Employer

Emergency Contacts

Documents and Add...

Visit Info

Guarantor Accounts

P/F - CADENCE, PATI...

Cvg & Add'l Info

Add'l Billing Info

Coverages

E-BLUE CROSS BLUE...

Subscriber Info

Claim Address

Copay Info

Name: Patient Mark Cadence SSN: xxx-xx-7777

Sex: Male Birth date: 12/10/1974 Aliases: 1

Permanent Address Temporary Address Confidential Address

Address: 6122 WURZBACH

City (or ZIP): SAN ANTONIO

State: TX ZIP: 78229

County: BEXAR

Country: United States of America

Contact Information:

	Number Type	Number	
1	Home Phone	210-450-4555	
2	Work Phone		
3	Mobile		

E-mail:

Comments:

Marital Status: Single

Ethnicity: Non-Hispanic or Non-Latinc

Need interpreter?

Preferred Language: English

Place of Birth:

Race: 1 White or Caucasia

Permanent comments:

# EPIC EMR

Ethnicity Select

Search:

Title
Hispanic or Latino
I choose not to provide this information
Non-Hispanic or Non-Latino
Other
Unknown

5 categories loaded.

Race Select

Search:

Title	Number
American Indian or Alaska Native	3
Asian	4
Black or African-American	2
I choose not to provide this information	10
More Than One Race	11
Native Hawaiian and Other Pacific Islander	5
Other	6
Unknown	8
White or Caucasian	1

9 categories loaded.



# DATA QUERY: COMPLETENESS

Data source: **i2b2**

- ❖ An open-source data warehouse developed by the NIH-funded National Center for Biomedical Computing at Partners HealthCare System in Boston.
- ❖ Allowed access to de-identified EMR data.

Ran query: Not recorded for race+ ethnicity+ language at all MARC PCC ( IM, FM, Geriatrics)

Numerator:  
empty records(406)

Denominator :  
unique patients ( 37,325)

1.08%  
incomplete

# DATA QUERY: ACCURACY

## Random Audits



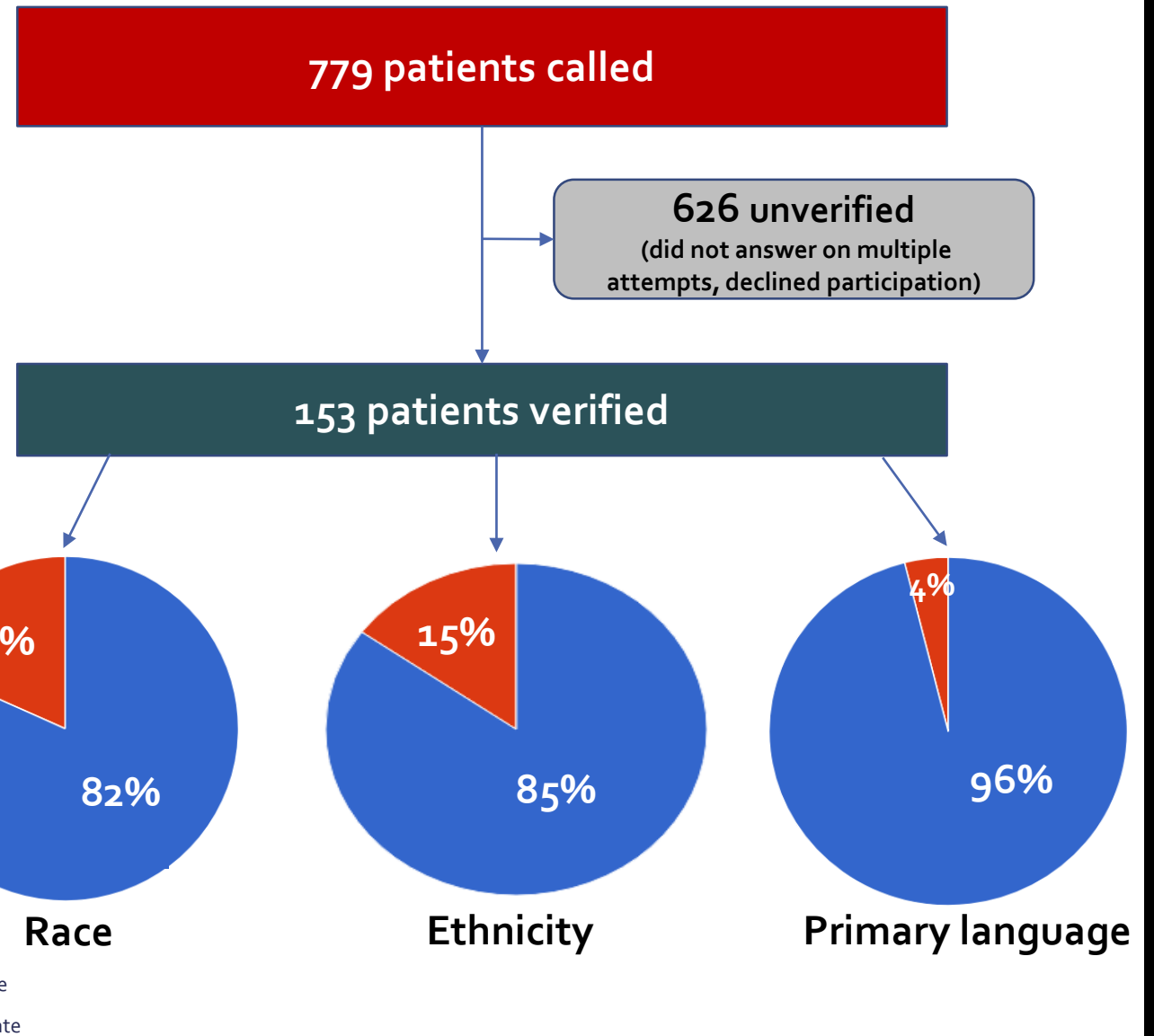
Hello,  
My name is \_\_\_\_\_, I am \_\_\_\_\_ (position) at UT health. I am calling you because you have been identified as a UT health patient who receives care at the MARC. We are working to ensure that the data we collect in the electronic medical record is as accurate as possible.

Participation is completely voluntary, however with your permission, we're going to ask you some questions about yourself such as: your name, your age, your address, your education level, your gender, your race, and your ethnicity.

We'll keep this information confidential and will update it in your medical record. This information will not be used for immigration purposes or reported to the authorities. The only people who see this information will be members of your care team and others who are authorized to see your medical record. I will provide you with my name and contact information at the end of this call should you have any questions.

This should take less than 5 minutes.

Would you like to proceed?



In order for Health Information Technology to function at a level that can inform our leadership about health disparities, the following elements have to be met:

### ☐ Standardization of Data collection

- ☒ Data must be reported by patient
- ☐ Collected in a culturally sensitive manner
- ☒ Complete
- ☒ Accurate

### ☐ Must be a requirement to report and act on health disparities data

- ☐ Stratification of data to evaluate the presence of health disparities
- ☐ Mechanism to report findings to leadership and create action plans that address the identified disparities

**\*\*Baseline 10/21 being met\*\***

### ☐ Must include 'metrics that matter':

*Social determinants of health systematically captured*

- ☒ Primary language
- ☒ Race/Ethnicity
- ☐ Health Literacy
- ☐ Education level ( surrogate for SES)
- ☒ Employment
- ☐ Financial resource strain
- ☐ Stress
- ☒ Depression
- ☒ Physical activity
- ☒ Tobacco use and exposure
- ☒ ETOH use
- ☐ Abuse of other substances
- ☐ Social connections and social isolation
- ☐ Exposure to violence: intimate partner violence
- ☐ Neighborhood and community compositional characteristics

# REVISED AIM

To increase the health information elements needed to inform leadership about health disparities for patients in the MARC Primary care clinics

**Phase 1:** increase elements from 10/21 elements to 11/21 elements [targeting standardization] by May 15<sup>th</sup>, 2018.

**Phase 2:** increase elements from 11/21 to 21/21 elements [targeting social determinants and mandate to report and act] by January 1, 2019.



## Environment

### Institutional culture

lack of health equity/disparities in strategic plan

missing sense that health disparities reporting is part of institutional responsibility in informing public health

## Technology

### EPIC is not optimized for collection of REAL data

demographic elements not arranged in a way for intuitive collection

no hard stops for missing demographic components

unnecessary categories for Race/ethnicity

no available scripts embedded in EMR

### EHR does not include social determinants of

social determinants screen not part of the intake process

## Problem Statement

The elements collected in the Electronic Health Record are not utilized in a manner that can inform leaders on health disparities in that occur in the MARC PCC

### Call center Employees

lack of training on culturally sensitive collection

no standardized approach (script) for collecting demographic info

no standardized approach for answering difficult questions

### Front desk intake staff

lack of training on culturally sensitive collection

information is not always collected by patient self report

Patients

lack of awareness for preferences for demographic collection

### Lack of formal/recognized committee for health equity/ health disparities

lack of set aside funding & lack of protected time for employees to work on this

no annual review of health disparities

no mandatory review or reporting of stratified data

### Staff training

no onboarding required regarding culturally sensitive collection

no external educational resources given to aid in standardization of data

## Policies

## People

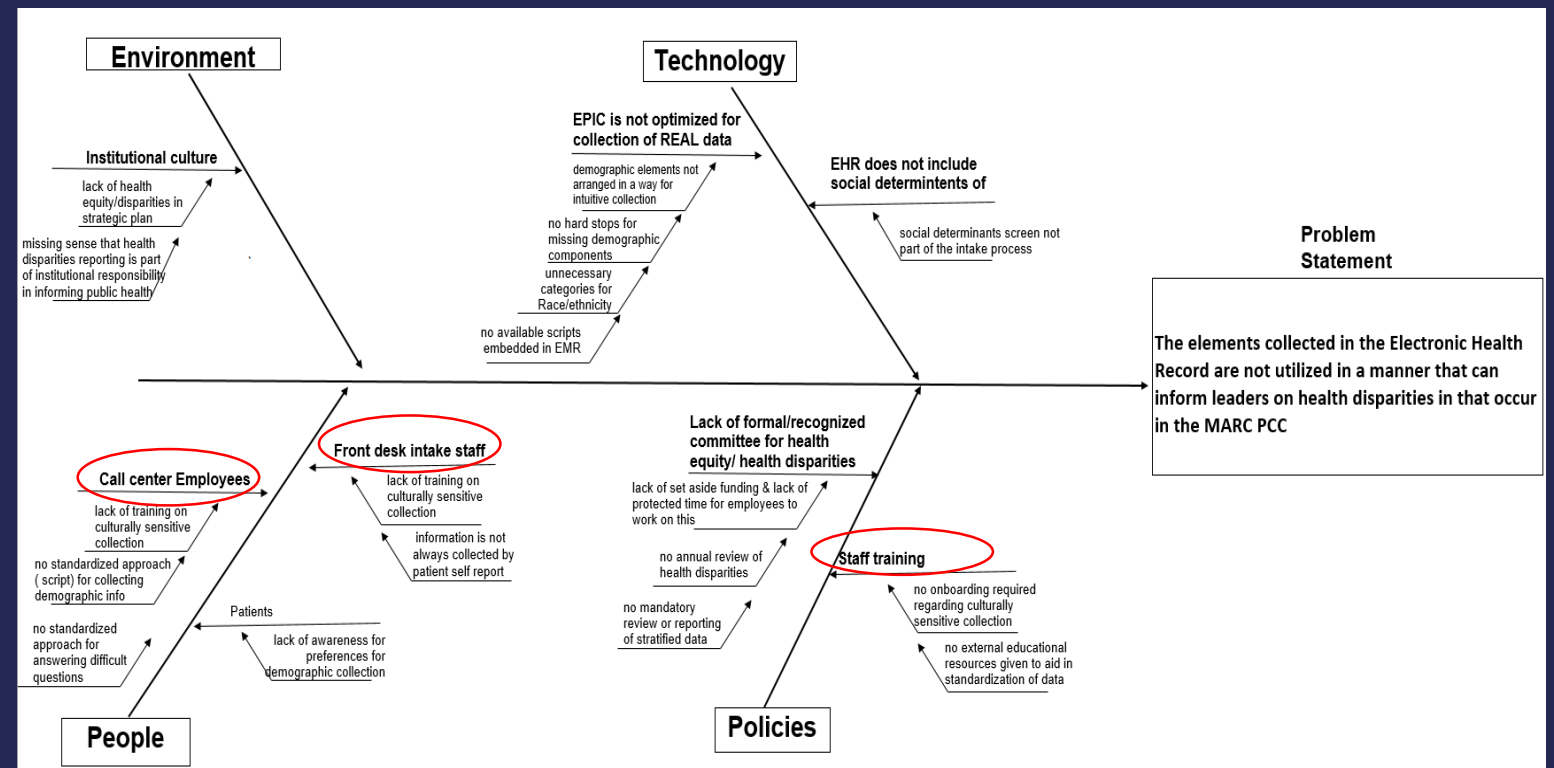
# PLANNING AND DOING: SUMMARY AND RECOMMENDATIONS

# PHASE 1

( COMPLETION DATE: MAY 15, 2018)

# FINDING #1

Staff feel that they would benefit from additional training to help standardize the process for data collection.





# RECOMMENDATION #1

The training course *Ask Every Patient: REAL (Race, Ethnicity and Language)* should be required for all administrative staff that participate in patient registration.

This training should be given both at intake and as an annual refresher.

Additionally, the resources that support the course should be readily available to staff members.


## SPECIFIC OR GRANULAR CATEGORIES

The general categories of race and ethnicity that many registration systems offer are very broad. Below are more specific or "granular" categories that are grouped within each broad category. Use them to help you select the correct category to code patient race, ethnicity, and language (REAL) choices that are not in your system.

### ETHNICITY

#### Hispanic or Latino Origin Granular Categories

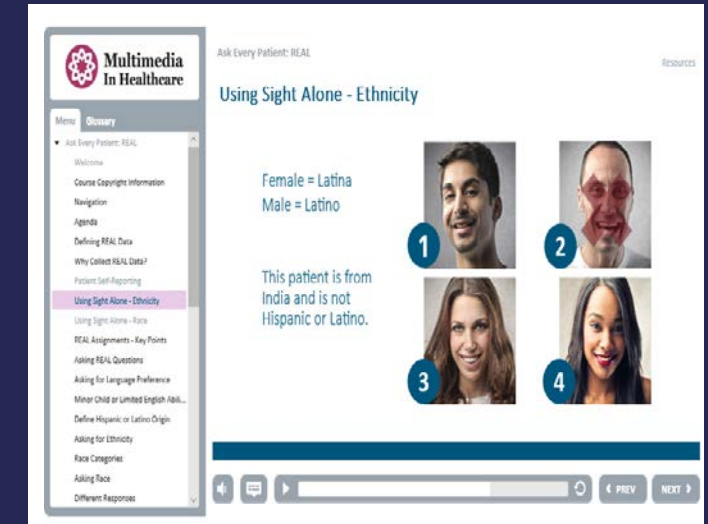
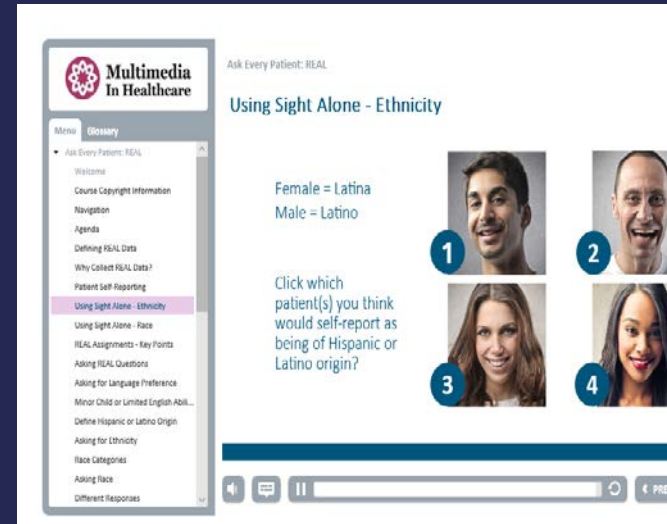
Andalusian	Catalonian	Cuban	Mexican	Puerto Rican	Valencian
Argentine	Central American Indian	Ecuadoran	Mexicano	Salvadoran	Venezuelan
Asturian	Castilian	Gallego	Nicaraguan	South American	
Balearic Islander	Chicano	Guatemalan	Panamanian	South American Indian	
Bolivian	Colombian	Honduran	Paraguayan	Spaniard	
Brazilian	Costa Rican	La Raza	Peruvian	Spanish Basque	
Canal Zone	Criollo	Latin American	Portuguese	Uruguayan	



## MULTIMEDIA IN HEALTH

# Ask Every patient REAL

## DEMO AND FEEDBACK FROM STAFF TRAINING



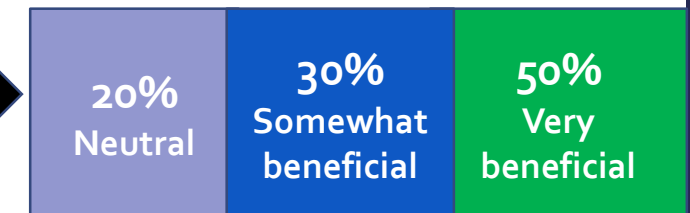
On a scale of 1-5 How helpful was this course?

1. Very helpful
2. Somewhat helpful
3. Neutral
4. Not very helpful
5. Not at all helpful



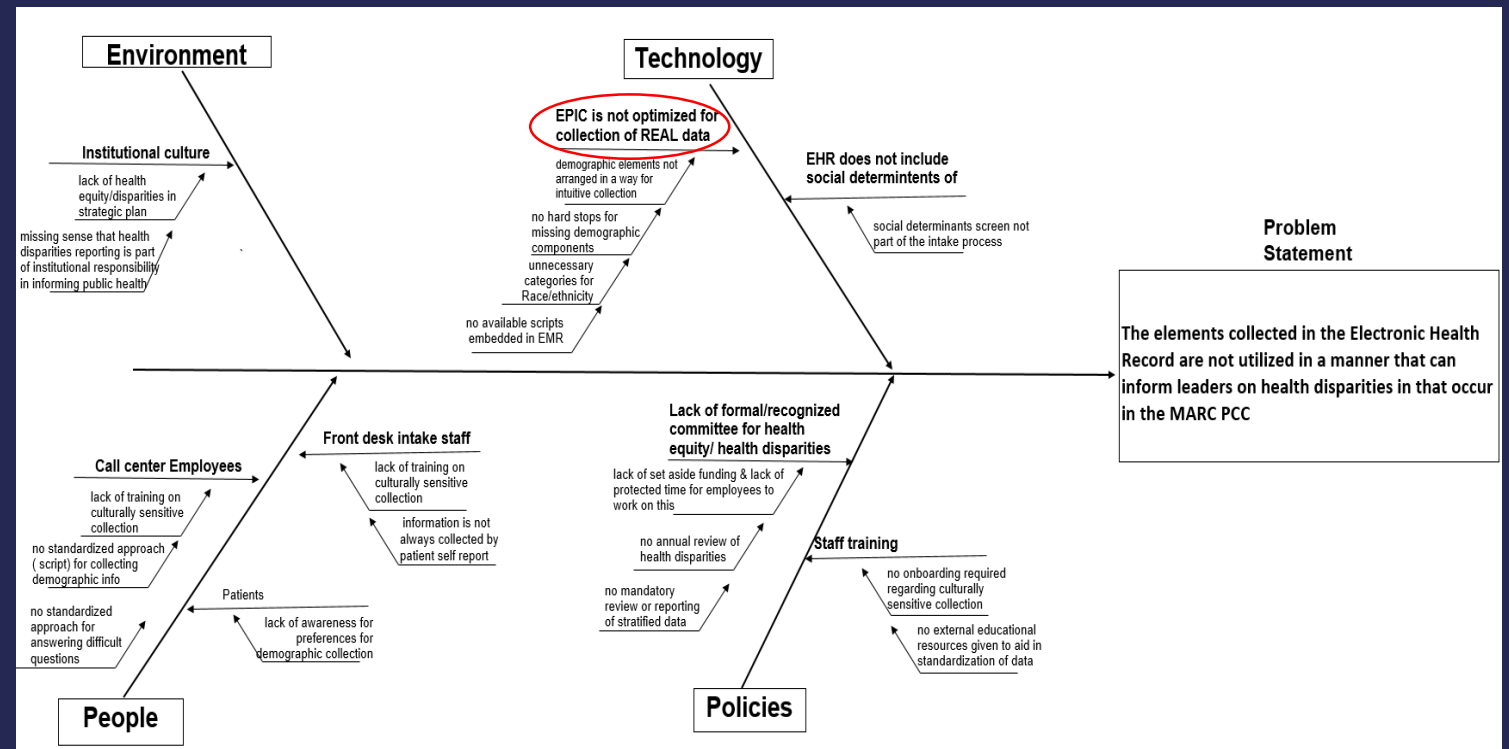
On a scale of 1-5 How beneficial do you think it would for all patient intake staff to take this course?

1. Very beneficial
2. Somewhat beneficial
- 3 Neutral
4. Not very beneficial
5. Not at all beneficial



## FINDING #2

# Epic is not optimized for collection of REAL data



## RECOMMENDATION # 2

### Modify EPIC to enhance the collection of REAL data

**2.1 Rearrange the categories in EPIC to facilitate intuitive collection of responses**

**2.2 Input EMR hard stops for incomplete REAL fields**


**2.3 Change and eliminate unnecessary categories in the RACE/ETHNICITY fields**

**2.4 Include scripted prompts in Epic**

In order for Health Information Technology to function at a level that can inform our leadership about health disparities, the following elements have to be met:

\*

### Standardization of Data collection

-  Data must be reported by patient
-  Collected in a culturally sensitive manner
-  Complete
-  Accurate

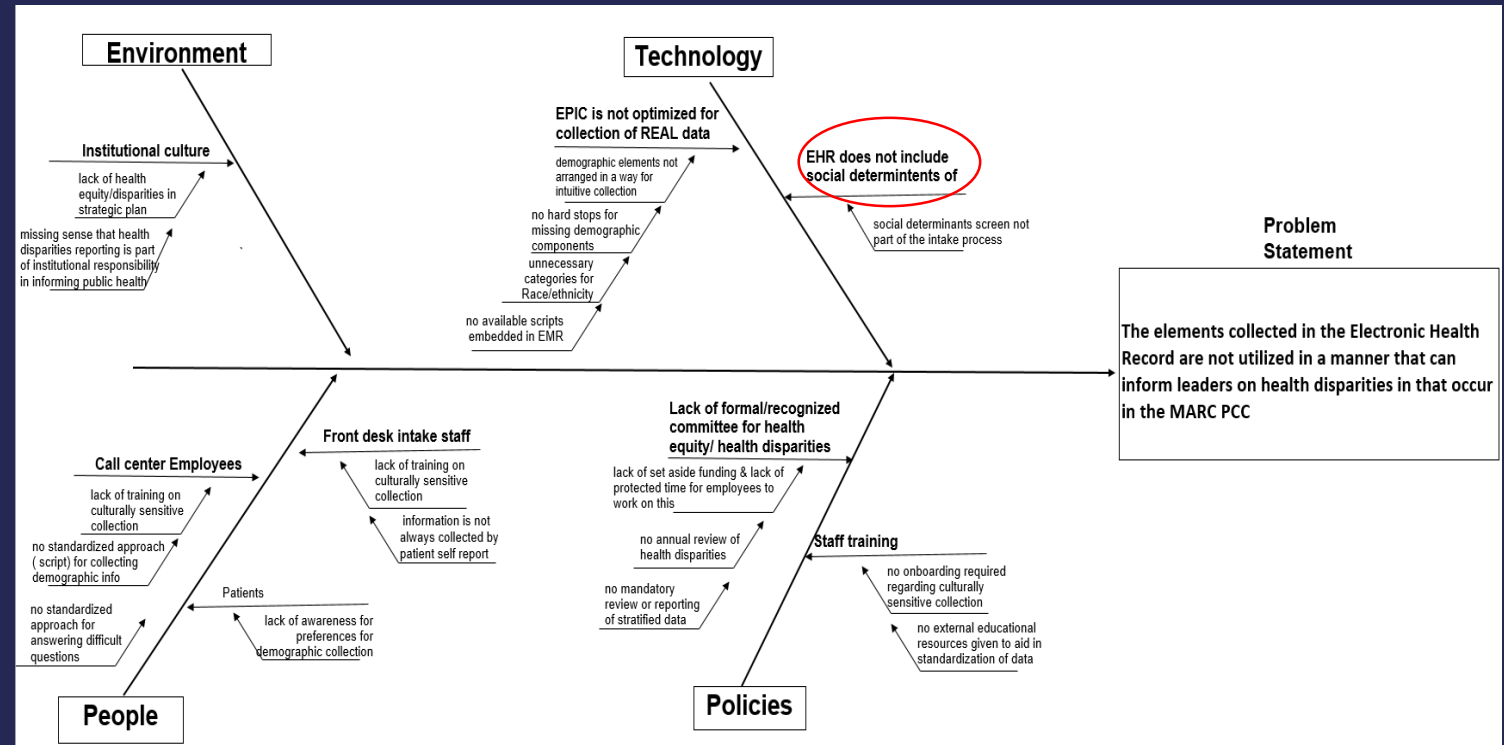
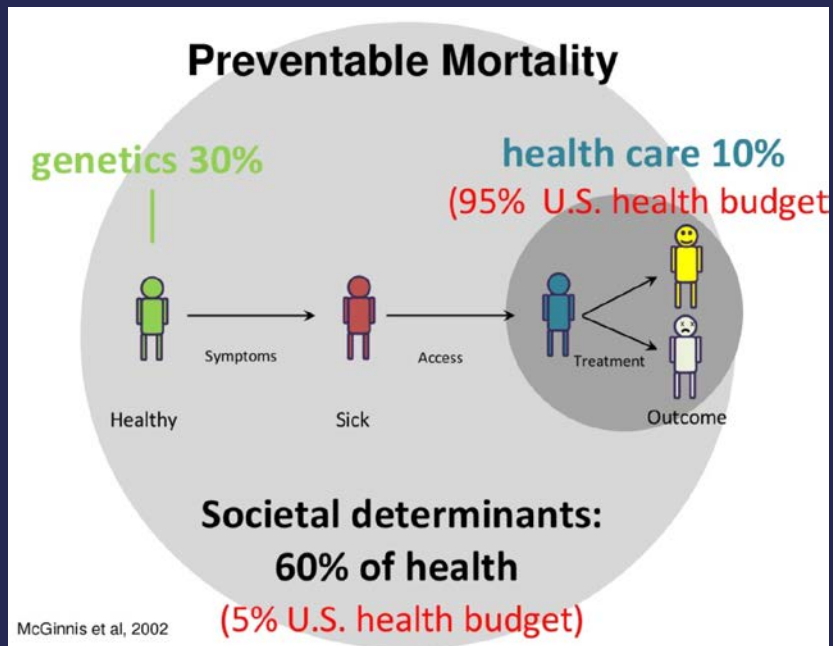
**\*\*Post 1<sup>st</sup> PDSA 10/21→11/21 and improved standardization of data collection\*\***

## PHASE 2

( COMPLETION DATE: JANUARY 1, 2019)

# FINDING #3

## Social determinants of health are largely absent from the EMR



**In order for Health Information Technology to function at a level that can inform our leadership about health disparities, the following elements have to be met:**

☐ **Inclusion of 'metrics that matter':**

*Social determinants of health systematically captured*

- ☒ Race/Ethnicity
- ☒ Primary language
- ☐ Health Literacy
- ☐ Education level ( surrogate for SES)
- ☒ Employment
- ☐ Financial Resource strain
- ☐ Stress
- ☒ Depression
- ☐ Physical activity
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- ☐ Social connections and social isolation
- ☐ Exposure to violence: intimate partner violence
- ☐ Neighborhood and community compositional characteristics

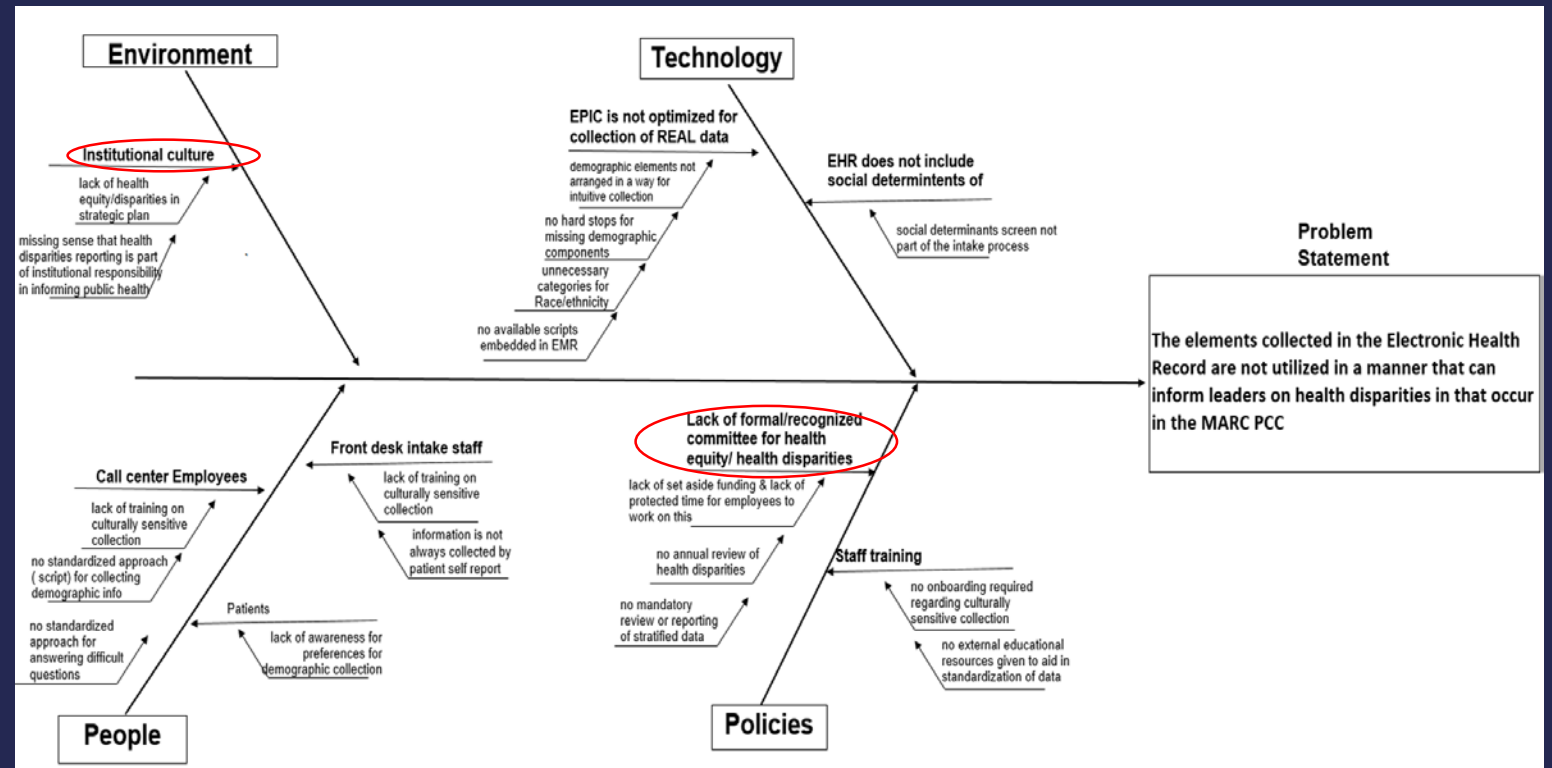
**Remaining list to be included in new  
Epic 2019 update**



# FINDING #4

To advance the work of this project, turning data into actionable and sustainable results there has to be a significant investment by leadership.

Investment in time, resources, and a meaningful recognition of the importance of this work at an institutional level.



## RECOMMENDATION #4

Resource allocation to support the formation and sustainment of a  
**Taskforce on Health Equity:**

- Funding
- Protected time (FTE's)
- Outside consultants

Enforce  
Monitoring  
and Reporting



Delegate the creation of  
teams to meet the needs  
of vulnerable patients  
experiencing disparities  
(as identified in data)

**In order for Health Information Technology to function at a level that can inform our leadership about health disparities, the following elements have to be met:**

☐ Mandate to report and act on health disparities data

- ☐ Stratification of data to evaluate the presence of health disparities
- ☐ Mechanism to report findings to senior leadership and create action plans that address the identified disparities

# LESSONS LEARNED AND FUTURE DIRECTIONS

## LESSONS LEARNED

- Multidisciplinary team is critical
- Social determinants of health should be tailored to patient population
- Think about value added for stakeholders
- Be prepared to be creative to find resources

## FUTURE DIRECTIONS

- Patient Family Advisory Council to tailor social needs screen
- Find funding mechanisms
- Recruit Health Equity Taskforce

QUESTIONS?

THE END

# RECOMMENDATION # 3

- In EPIC, add an additional tab for social determinants of health, and make this screen part of the intake process.



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CAPTURING SOCIAL AND BEHAVIORAL DOMAINS IN EHRs

TABLE S-3 Core Domains and Measures

Domain	Measure
• Race/ethnicity	• U.S. Census (2 Q)
• Education	• Educational attainment (2 Q)
• Financial resource strain	• Overall financial resource strain (1 Q)
• Stress	• Elo et al. (2003) (1 Q)
• Depression	• PHQ-2 (2 Q)
• Physical activity	• Exercise Vital Sign (2 Q)
• Tobacco use and exposure	• NHIS (2 Q)
• Alcohol use	• AUDIT-C (3 Q)
• Social connections and social isolation	• NHANES III (4 Q)
• Exposure to violence: Intimate partner violence	• HARK (4 Q)
• Neighborhood and community compositional characteristics	

NOTE: Q = question(s).

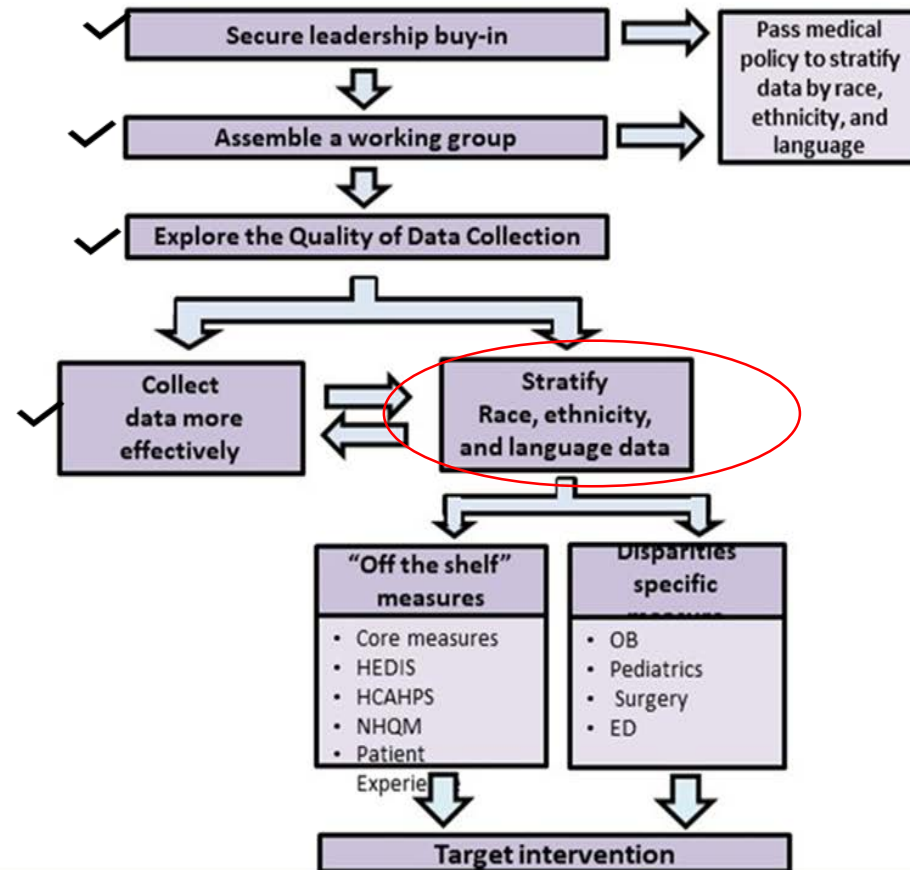
Health literacy, substance abuse, primary language, employment

# RETURN ON INVESTMENT

## POSSIBLE VALUE ADDED FOR STAKE HOLDERS INCLUDES

- DSRIP/ACO
- Improving documentation of social determinants and billing for these factors helps to capture the complexity of our population and improves reimbursement





**THE DISPARITIES  
SOLUTIONS CENTER**

*One Goal - High Quality Care for All*