Closing the disparity gap: The importance of clinical, patient, and analytics team collaboration

Elizabeth Lewis, Lead Analyst, BHCHP
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Closing the disparity gap: The importance of clinical, patient, and analytics team collaboration

NHCHC annual conference

May 15, 2024

Elizabeth Lewis, Lisa Schwartz, Angelica Smith

Boston Health Care for the Homeless Program (BHCHP)

Learning objectives

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

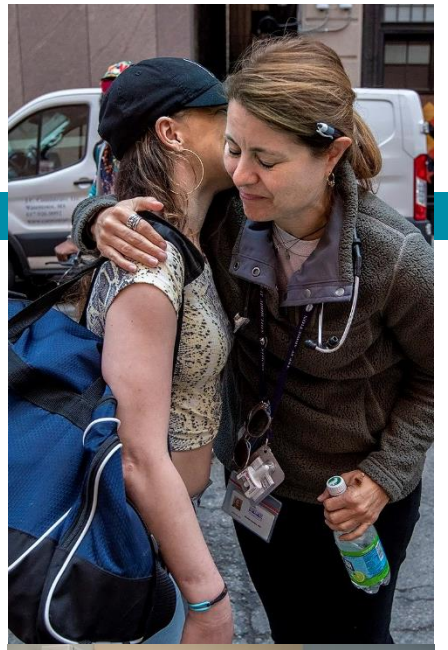
1. Describe the importance of inter-team collaboration in equitable patient care
2. Explain how to leverage quality data for clinical equity so that it can be understood by multiple stakeholders
3. Articulate the advantages of engaging and collaborating with patient groups to interpret and utilize clinical equity data to close any existing equity gaps

About BHCHP

Founded in 1985, Boston Health Care for the Homeless Program (BHCHP) is committed to a singular, powerful mission:

..to ensure unconditionally equitable and dignified access to the highest quality health care for all individuals and families experiencing homelessness in our community.

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM



"The medical problems of homeless persons are rarely exotic but rather common illnesses magnified by prolonged neglect during the daily struggle for survival."

-Dr. Jim O'Connell, MD

BHCHP's Founding Physician & President

BHCHP has grown to include over 500 dedicated staff caring for more than 10,000 patients each year.

Key Services:

- Public Health Interventions
- Street Team Outreach
- Mental Health Services
- Transgender Health Services
- Harm Reduction and Treatment Services
- HIV Testing, Counseling, & Treatment
- Hepatitis C Testing & Treatment
- 124 beds of Medical Respite Care
- Meal Services
- Dental Care
- Case Management
- Family and Youth Services

A Community Health Center On the Move

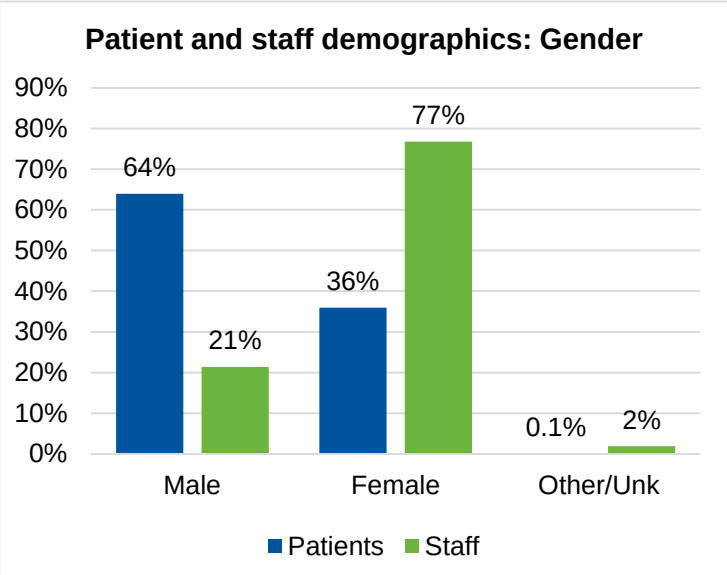
Where we are:

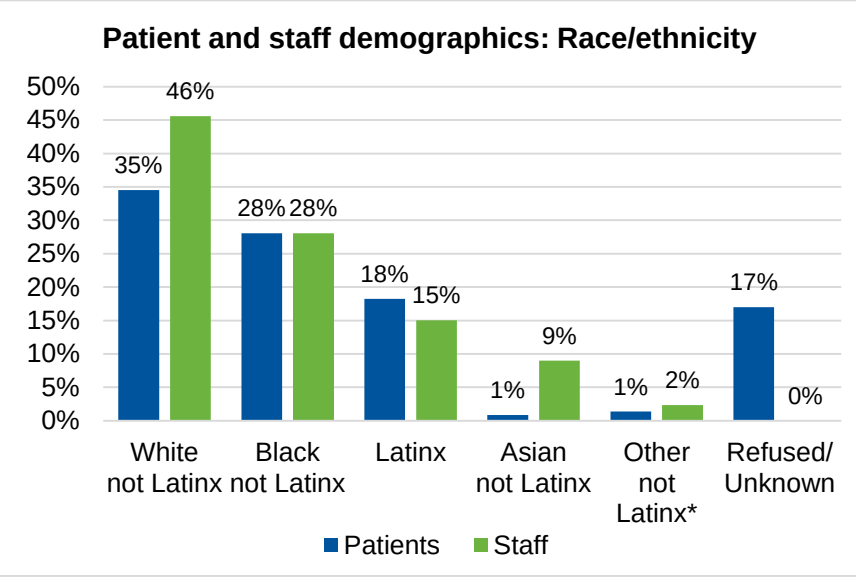
BHCHP brings care wherever homeless individuals and families may be, delivering services at approximately 30 locations, including:

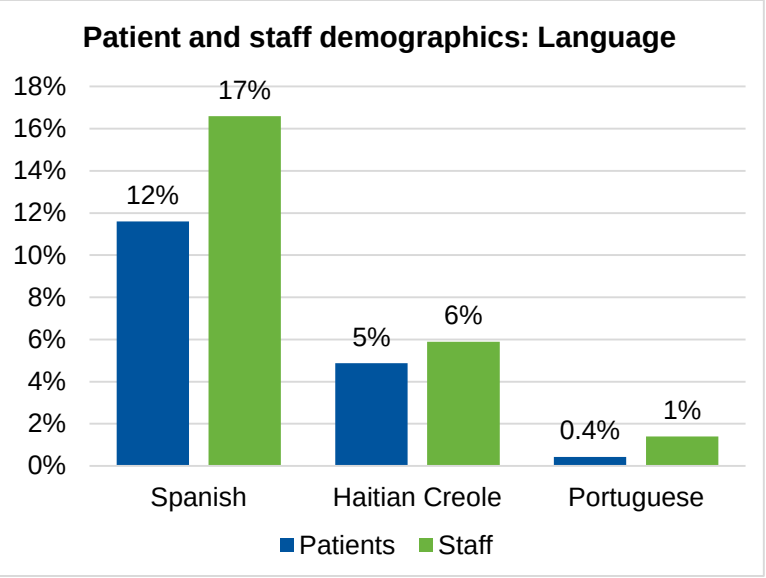
- Emergency shelters
- Family shelters
- Domestic violence shelters
- Day Programs
- Area hospitals
- Two freestanding respite units
- On the street

Demographics snapshot (1)

- With the exception of gender, our patients and staff have fairly similar profiles
  - 64% of our patients are male, compared to 21% of our staff (graph at left)
  - We have fewer White and Asian patients as compared to staff, but slightly more Latinx patients (middle graph)
  - Staff language capabilities reflect the top languages spoken by patients



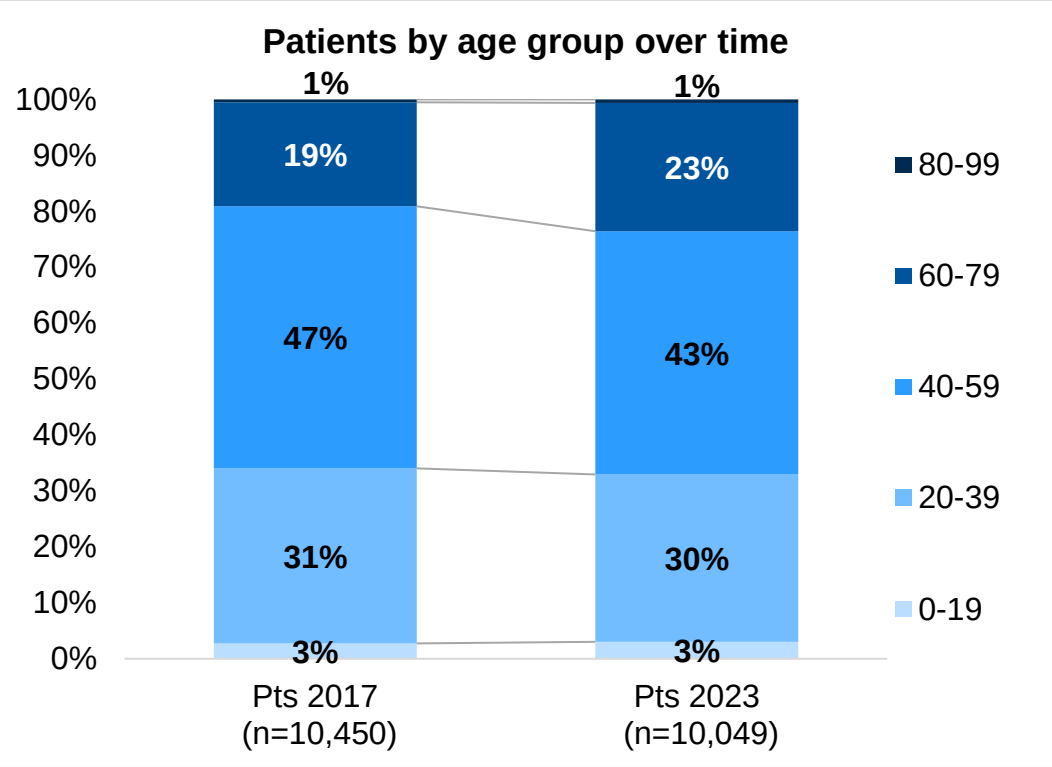


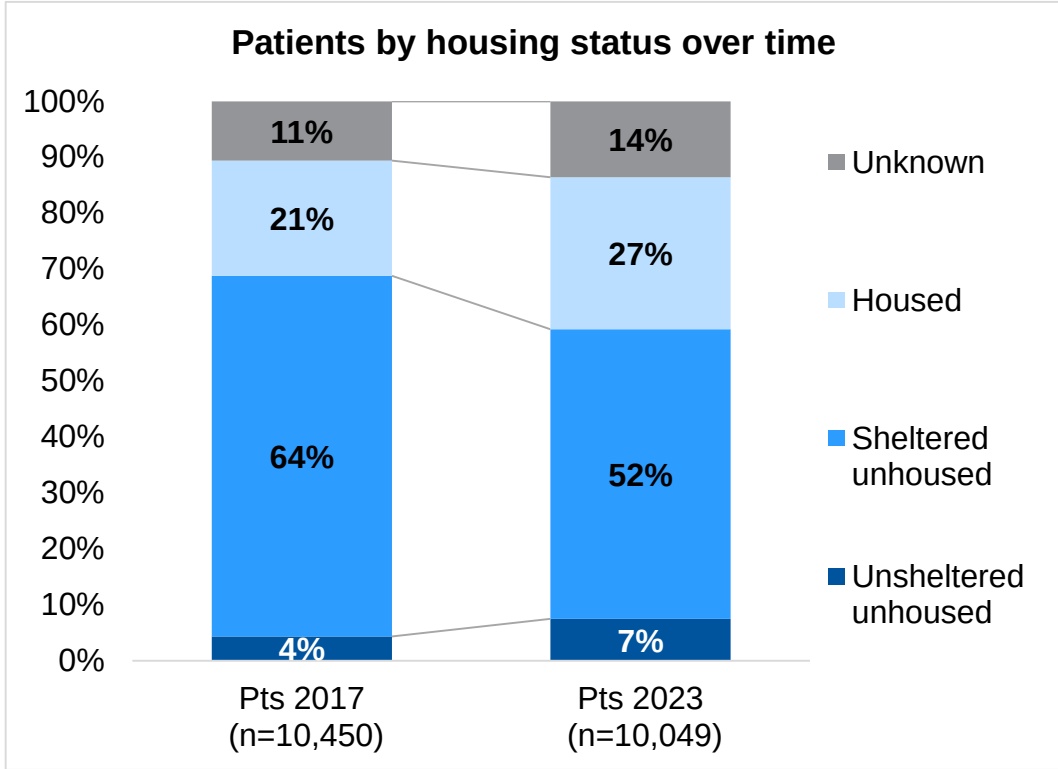


NOTES: Other/Unknown gender includes non-binary, other, and blank (0.1% of patients seen). Portuguese speakers comprise 0.4% of patient population.

Demographics snapshot (2)

- Age: Our patients are getting older
  - In 2017, the average age was **46.1**; by 2023, it was **46.9**, despite influx of younger patients
  - Patients 60+ increased, from **19%** of patients in 2017 to **24%** in 2023
- Housing status: More patients were housed as of 2023, but more on the street also
  - Unsheltered unhoused = Street; Sheltered unhoused = Shelter, doubled up, transitional, motel, etc.





Pause—participant input

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Where did you travel from (Menti Q)?
- What is your role in your organization?
- What do you hope to gain from the session? (*use microphone, not Menti question)*

Justice, Equity, Diversity, and Inclusion (JEDI): History and Background

Vision Statement for Equity and Social Justice Commitment at BHCHP

We’re shaped by the world around us, including the inequitable systems in which we live. We recognize that we bring with us to work biases that affect our interactions with our patients and each other. The Equity and Social Justice Committee is committed to building bridges and breaking down barriers. We seek to do work that is transformational: recognizing our shared humanity; centering dignity, compassion, and mutual respect; and supporting the right of every individual to reach their full potential at BHCHP.

Brief Overview of Equity and Social Justice at BHCHP

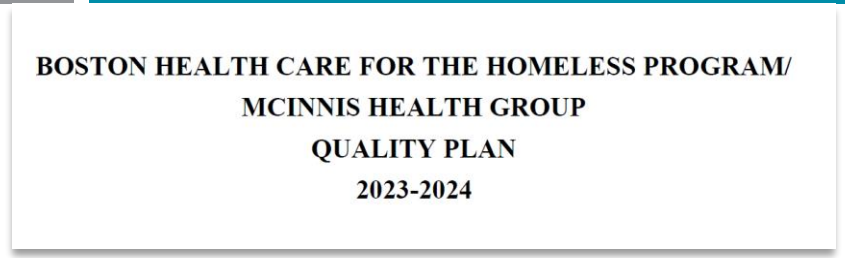
- Since 2015, BHCHP has critically examined the systemic inequities that drive poor health and unequal access to quality health care, while addressing how structural racism manifests within its own workplace and care model.
- Through a broad assessment and a larger Diversity, Equity, and Inclusion Initiative—headed by our Medical Director, senior leadership and management, our Equity and Social Justice Committee, and Immigrant Health Committee—BHCHP took deliberate steps to foster an equitable, safe environment for staff and patients alike.
- We strive to empower staff on their own racial and social justice journeys through a continuous schedule of frequent trainings, discussions, caucuses, expert speakers, and working groups designed to bring racial equity to the forefront of our collective consciousness.
- It is through this commitment to equity and inclusion at BHCHP that JEDI and its work can remain foundational, staff- and patient-focused.

JEDI Focus and Program Offerings

- **JEDI Monthly Orientation—**New staff attend a full day of training focused on justice, equity, diversity, and inclusion (JEDI) and anti-racism practice in our CHC
- **Monthly Newsletter—**Equity program highlights
- **Programming, Workshops, and Discussions—**Equity-focused Brown Bag discussions and education
- **JEDI Interview Bias Training—**Conducted for new managers
- **Training and Development—**Spanish language immersion courses in support of translation services at BHCHP
- **Professional Consult and Support—**Mediation/Coaching at request on equity matters
- **Events Calendar—**Recognizing monthly observances, as well as cultural and religious holidays
- **Employer-Sponsored Benefits—**Equity-based benefits in health care, staff empowered Committees/Groups, and salary premium for bilingual and multilingual proficiency

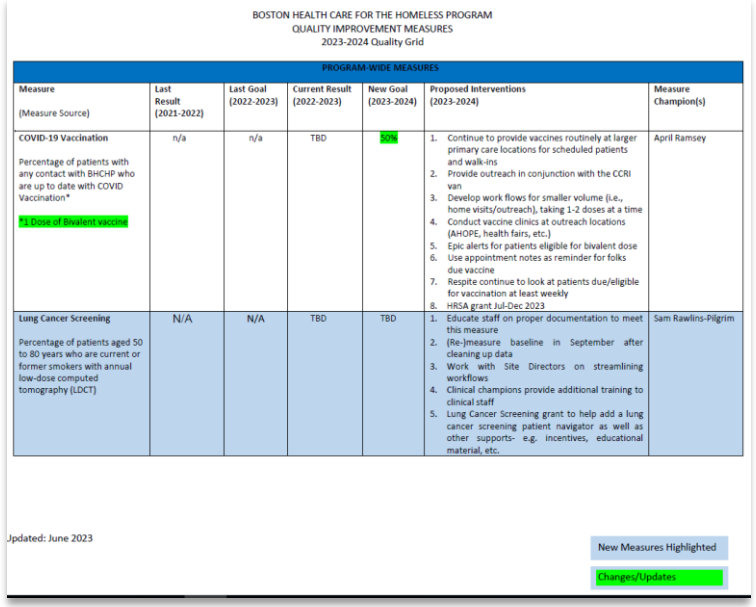
Quality & Efficiency Committee

BHCHP's QUALITY PROGRAM



BOSTON HEALTH CARE FOR THE HOMELESS PROGRAM/
MCINNIS HEALTH GROUP
QUALITY PLAN
2023-2024

Annual Quality Plan



BOSTON HEALTH CARE FOR THE HOMELESS PROGRAM
QUALITY IMPROVEMENT MEASURES
2023-2024 Quality Grid

PROGRAM-WIDE MEASURES

Measure (Measure Source)	Last Result (2021-2022)	Last Goal (2022-2023)	Current Result (2022-2023)	New Goal (2023-2024)	Proposed Interventions (2023-2024)	Measure Champion(s)
COVID-19 Vaccination Percentage of patients with any contact with BHCHP who are up to date with COVID Vaccination* *1 Dose of Bivalent vaccine	n/a	n/a	TBD	50%	1. Continue to provide vaccines routinely at larger primary care locations for scheduled patients and walk-ins 2. Provide outreach in conjunction with the CCRI van 3. Develop work flows for smaller volume (i.e., home visits/outreach), taking 1-2 doses at a time 4. Conduct vaccine clinics at outreach locations (AHOPE, health fairs, etc.) 5. Epic alerts for patients eligible for bivalent dose 6. Use appointment notes as reminder for folks due vaccine 7. Respite continue to look at patients due/eligible for vaccination at least weekly 8. HRSA grant Jul-Dec 2023	April Ramsey
Lung Cancer Screening Percentage of patients aged 50 to 80 years who are current or former smokers with annual low-dose computed tomography (LDCT)	N/A	N/A	TBD	TBD	1. Educate staff on proper documentation to meet this measure 2. (Re-)measure baseline in September after cleaning up data 3. Work with Site Directors on streamlining workflows 4. Clinical champions provide additional training to clinical staff 5. Lung Cancer Screening grant to help add a lung cancer screening patient navigator as well as other supports- e.g. incentives, educational material, etc.	Sam Rawlins-Pilgrim

Updated: June 2023

New Measures Highlighted

Changes/Updates

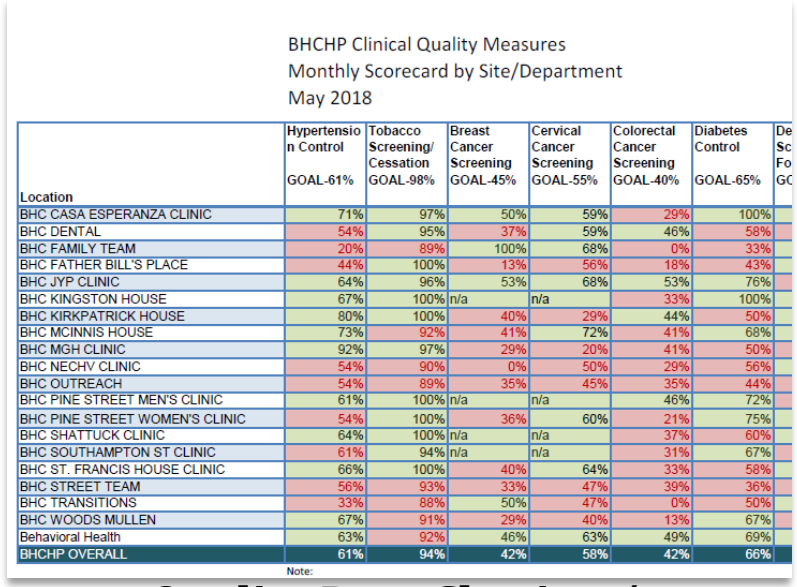
Quality Metrics Grid

QEC

Quality & Efficiency Committee

Stall Stats, Newsletters, & Other Communications

Programwide and Site-Specific Quality Initiatives



BHCHP Clinical Quality Measures
Monthly Scorecard by Site/Department
May 2018

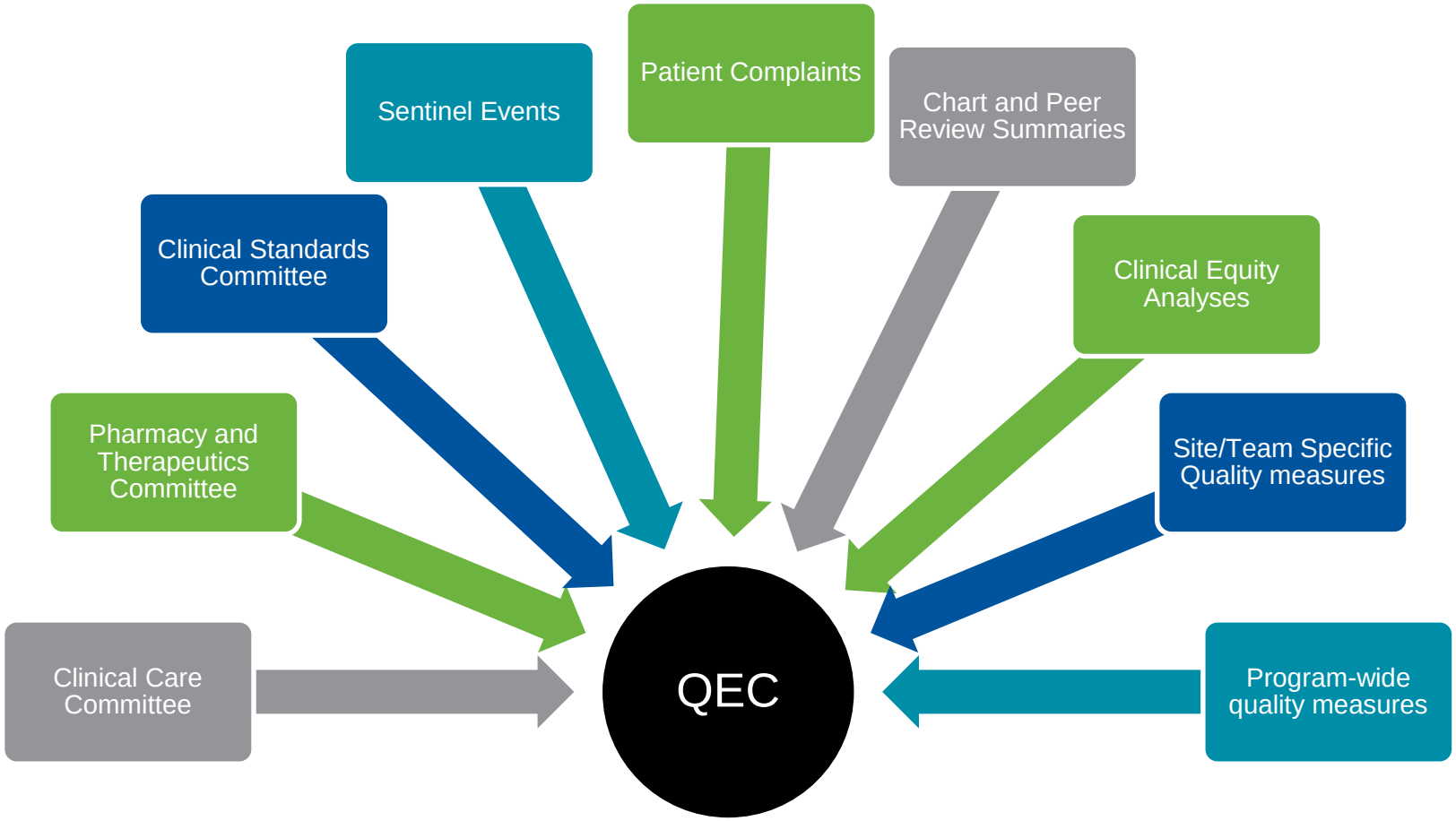
Location	Hypertension Control GOAL-61%	Tobacco Screening/ Cessation GOAL-98%	Breast Cancer Screening GOAL-45%	Cervical Cancer Screening GOAL-55%	Colorectal Cancer Screening GOAL-40%	Diabetes Control GOAL-65%	De Sc Fo GC
BHC CASA ESPERANZA CLINIC	71%	97%	50%	59%	29%	100%	
BHC DENTAL	54%	95%	37%	59%	46%	58%	
BHC FAMILY TEAM	20%	89%	100%	68%	0%	33%	
BHC FATHER BILL'S PLACE	44%	100%	13%	56%	18%	43%	
BHC JYP CLINIC	64%	96%	53%	68%	53%	76%	
BHC KINGSTON HOUSE	67%	100%	n/a	n/a	33%	100%	
BHC KIRKPATRICK HOUSE	80%	100%	40%	29%	44%	50%	
BHC MCINNIS HOUSE	73%	92%	41%	72%	41%	68%	
BHC MGH CLINIC	92%	97%	29%	20%	41%	50%	
BHC NECHV CLINIC	54%	90%	0%	50%	29%	56%	
BHC OUTREACH	54%	89%	35%	45%	35%	44%	
BHC PINE STREET MEN'S CLINIC	61%	100%	n/a	n/a	46%	72%	
BHC PINE STREET WOMEN'S CLINIC	54%	100%	36%	60%	21%	75%	
BHC SHATTUCK CLINIC	64%	100%	n/a	n/a	37%	60%	
BHC SOUTHAMPTON ST CLINIC	61%	94%	n/a	n/a	31%	67%	
BHC ST. FRANCIS HOUSE CLINIC	66%	100%	40%	64%	33%	58%	
BHC STREET TEAM	56%	93%	33%	47%	39%	36%	
BHC TRANSITIONS	33%	88%	50%	47%	0%	50%	
BHC WOODS MULLEN	67%	91%	29%	40%	13%	67%	
Behavioral Health	63%	92%	46%	63%	49%	69%	
BHCHP OVERALL	61%	94%	42%	58%	42%	66%	

Note:

Quality Data Sharing / Site /Provider Updates

BHCHP Mission

The mission of BHCHP is to ensure unconditionally **equitable** and dignified access to the **highest quality health care** for all individuals and families experiencing homelessness in our community. This mission mandates excellence and equity in the provision of primary and preventive medical health care, oral health, mental health and addiction services and has required creativity and extraordinary collaboration with virtually all public and private health care agencies and providers in Boston.



MEMBERS:

1. **Chairperson: Chief Medical Officer**
2. **Co-chair: Director of Quality**
3. Director of Population Health
4. Consumer Advisory Board representatives
5. Medical Director
6. Associate Medical Director
7. Chief Operating Officer
8. Associate Director of Clinical Operations
9. Director of Health Care Operations
10. Chief Equity and Inclusion Officer
11. Site Directors and Nurse Managers
12. Director of Medical Respite
13. Medical Director of Medical Respite
14. Director of Behavioral Health
15. Oral Health Director
16. HIV Director
17. Program Manager of the Institute
18. Chief Information Officer
19. Clinical Informatics Specialist
20. Family Team Director
21. Compliance Officer
22. Senior Health Policy Advisor
23. Representatives of MDs, NPs, PAs, RNs, BH, and CM
24. Others as appropriate

PROGRAM-WIDE QUALITY METRICS
2023-2024

PATIENT EXPERIENCE

1. Patient experience survey – PCQ-H

PREVENTIVE & CHRONIC CARE

2. Cervical cancer screening
3. Breast cancer screening
4. Colorectal cancer screening
5. Lung Cancer Screening
6. Tobacco assessment and follow-up
7. Oral health evaluation

PREVENTIVE &CHRONIC CARE

8. Diabetes control
9. Diabetes: Eye Exam
10. Diabetes: Foot Exam
11. Hypertension control
12. HIV Screening
13. HCV Screening
14. COVID Vaccination
15. Pregnancy Intention Screening

BEHAVIORAL HEALTH

16. Depression screening and follow-up
17. OUD patients retention in OBAT

RESOURCE STEWARDSHIP

18. Follow-up after hospitalization

EQUITY

19. REL Completion
20. SOGI Completion

Quarterly Clinical Equity Analysis of Clinical Quality Metrics by Race, Ethnicity, Language, Gender, and Housing Status

New Metrics

Modified metrics

Clinical Quality Metrics

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

1. **Cervical Cancer Screening:** Percentage of women age **21 to 64** who received one or more Pap smears in the past three years *or* HPV testing within past 5 years
2. **Breast Cancer Screening:** Percentage of women age **40 to 74** who have had a mammogram in the past 27 months (trailing year plus 15 month lookback = 27 months)
3. **Colon Cancer Screening:** Percentage of patients age **45 to 75** who received one or more appropriate screenings for colorectal cancer
4. **Diabetes Control:** Percentage of patients age **18 to 75** with a diagnosis of diabetes, whose most recent HgbA1c <=9% during reporting period
5. **Hypertension Control:** Adults age **18 to 85** with a diagnosis of hypertension, whose most recent blood pressure reading is <140/90 during reporting period

Data Source—Azara DRVS Quality Reporting platform

Clinical Quality Metrics

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

6. **Depression Screening and Follow-up:** Percentage of patients aged **12 and older** screened for depression using an age appropriate tool AND follow-up plan documented if depressed
7. **OBAT retention:** For patients with an active OBAT flag, the percentage who had **one or more** of the following:
   - At least one face-to-face encounter coded F11 (OUD) in the past 50 days
   - An upcoming appointment in the next 30 days with an OBAT provider
   - At least one prescription for buprenorphine or naltrexone (excluding for smoking cessation) in the past 90 days

Data Sources—Azara DRVS Quality Reporting platform (Depression measure); EHR encounter, appt, and Rx data (OBAT)

Methodology and process (1)

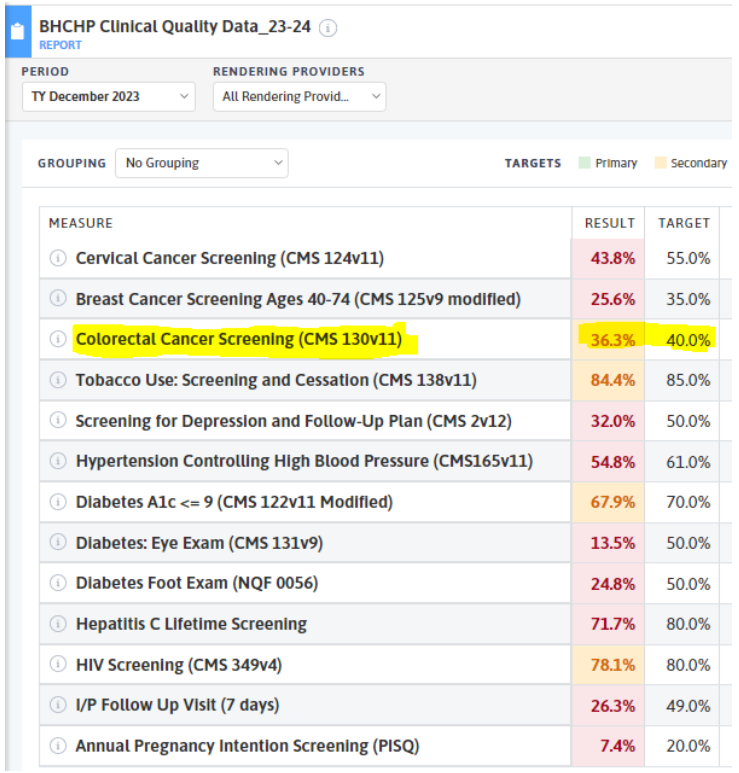
BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

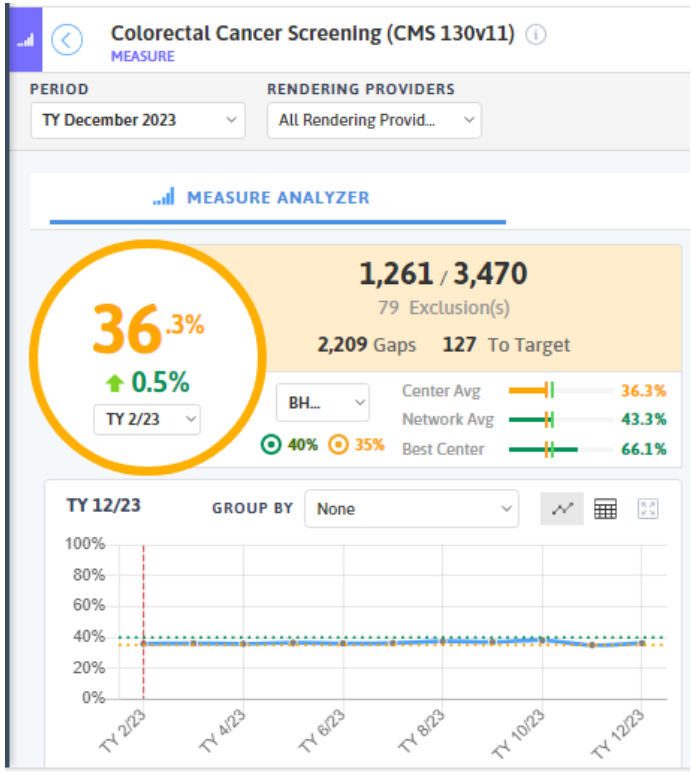
- What is statistical significance?
  - What we expect versus what we see
    - Look at distribution of entire population
    - Compare it to distribution of patients meeting measure
    - Test whether differences are due to chance or something else
  - Chi-squared test
    - Exposure = Patient Demographics (Language; Sex/Gender; Race/Ethnicity) and Housing Status
    - Outcome = Quality Measure
    - Compare outcome for each exposure with the rest of the population
    - Null Hypothesis = The difference is due to chance
    - Using level of significance where p-value = 0.05
    - If p-value < 0.05, then we reject the null hypothesis

Methodology and process (2)

BOSTON HEALTH CARE for the HOMELESS PROGRAM

- We use Azara DRVS
- Run various reports for quality measures being tracked
- Create pivot tables/crosstabs with summary numbers





Language	N	Y	Total
English	1,841	999	2,840
Spanish	239	165	404
Unreported/Refused to Re	66	20	86
Creole, Haitian	27	16	43
Portuguese	11	7	18
Creole, Cape Verdean	8	7	15
Vietnamese	7	3	10
Arabic	5	1	6
French	4	1	5
Other	4		4
Amharic	2	1	3
American Sign Language	3		3
Mandarin		3	3
Polish	1	1	2
Russian	1	1	2
Somali	1	1	2
Tigrinya	1	1	2
Kurdish	1		1
Bengali		1	1
Burmese		1	1
Urdu	1		1
Japanese	1		1
Albanian		1	1
Kirundi	1		1

Methodology and process (3)

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- **Simplify:** Where a category has only a few members, combine with other categories so that chi-squared tests will be valid
  - Example: Overall % meeting measure = 36% (1,230 / 3,455)
    - Expected N for **Portuguese** = 6 (36% of 18 Portuguese speakers in denominator)
      - Perhaps large enough for this measure with a large denominator, but not for other measures
    - Condense remaining languages into "**Other**" and show detail only for top 3
    - Keep "**Unreported/Refused**" separate to help track progress closing data gaps

Language	N	Y	Total
English	1,841	999	2,840
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Mandarin		3	3
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Russian	1	1	2
Somali	1	1	2
Tigrinya	1	1	2
Kurdish	1		1
Bengali		1	1
Burmese		1	1
Urdu	1		1
Japanese	1		1
Albanian		1	1
Kirundi	1		1

Time period: TY December 2023			
Language	**denom**	**num (met)**	**unmet**
English	2,840	999	1,841
Spanish	404	165	239
Haitian Creole	43	16	27
Other	82	30	52
Unreported/ Refused	86	20	66
Total	**3,455**	**1,230**	**2,225**

Methodology and process (4)

BOSTON HEALTH CARE for the HOMELESS PROGRAM

- Adapted template from Mass League
- Template simplifies smaller categories
- Graphs are created automatically, flagging significant and non-significant findings
- Graphs also show overall average, as well as target, for each measure

Paste Pivoted Results Below

Language	N	Y	Total
English	1,841	999	2,840
Spanish	239	165	404
Unreported/Refused to R	66	20	86
Creole, Haitian	27	16	43
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Somali	1	1	2
Tigrinya	1	1	2
Kurdish	1		1
Bengali		1	1
Burmese		1	1
Urdu	1		1
Japanese	1		1
Albanian		1	1
Kirundi	1		1

Category
English
Spanish
Unreported/ Refused
Haitian Creole
Other
Other
Other
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Other

Time period: TY December 2023

Language	denom	num (met)	unmet
English	2,840	999	1,841
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Haitian Creole	43	16	27
Other	82	30	52
Unreported/ Refused	86	20	66
Total	**3,455**	**1,230**	**2,225**

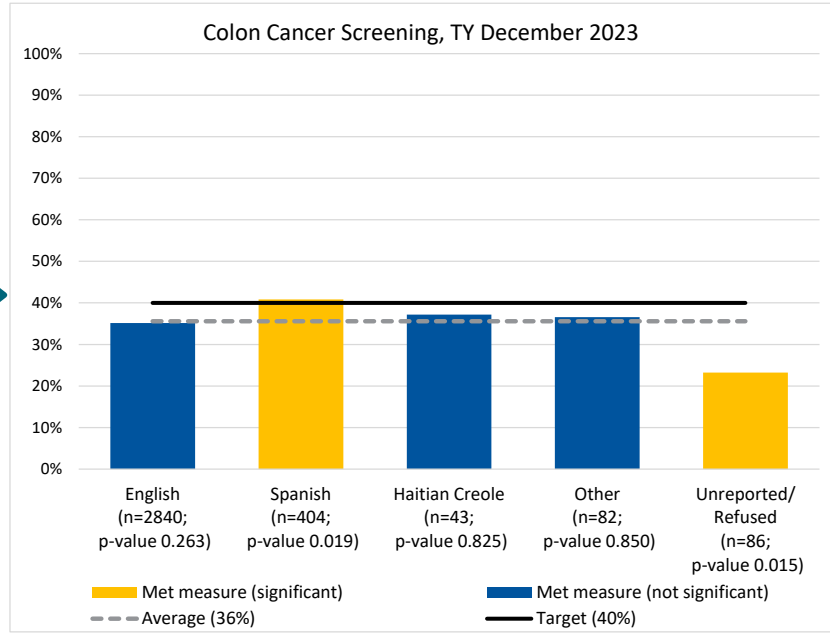
Time period: TY December 2023

Chi-Squared Tests for Independence

Exposure of interest - Independent variable (x):
Language

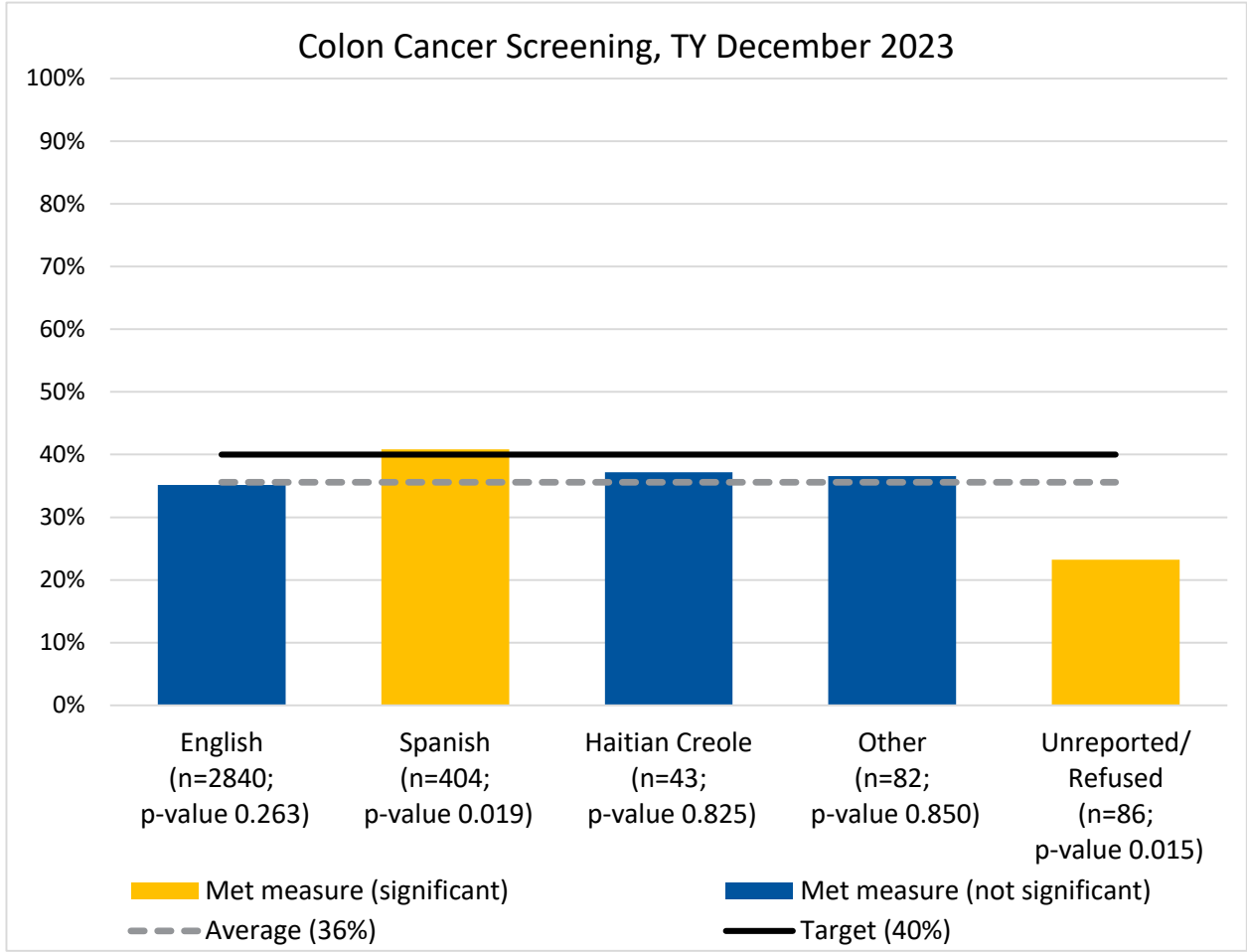
Outcome of interest - Dependent variable (y):
Colon Cancer Screening

Hypotheses:
Null: Patients screened for colon cancer is independent of exposure
Alternative: Patients screened for colon cancer is not independent of exposure



Example: Language analysis

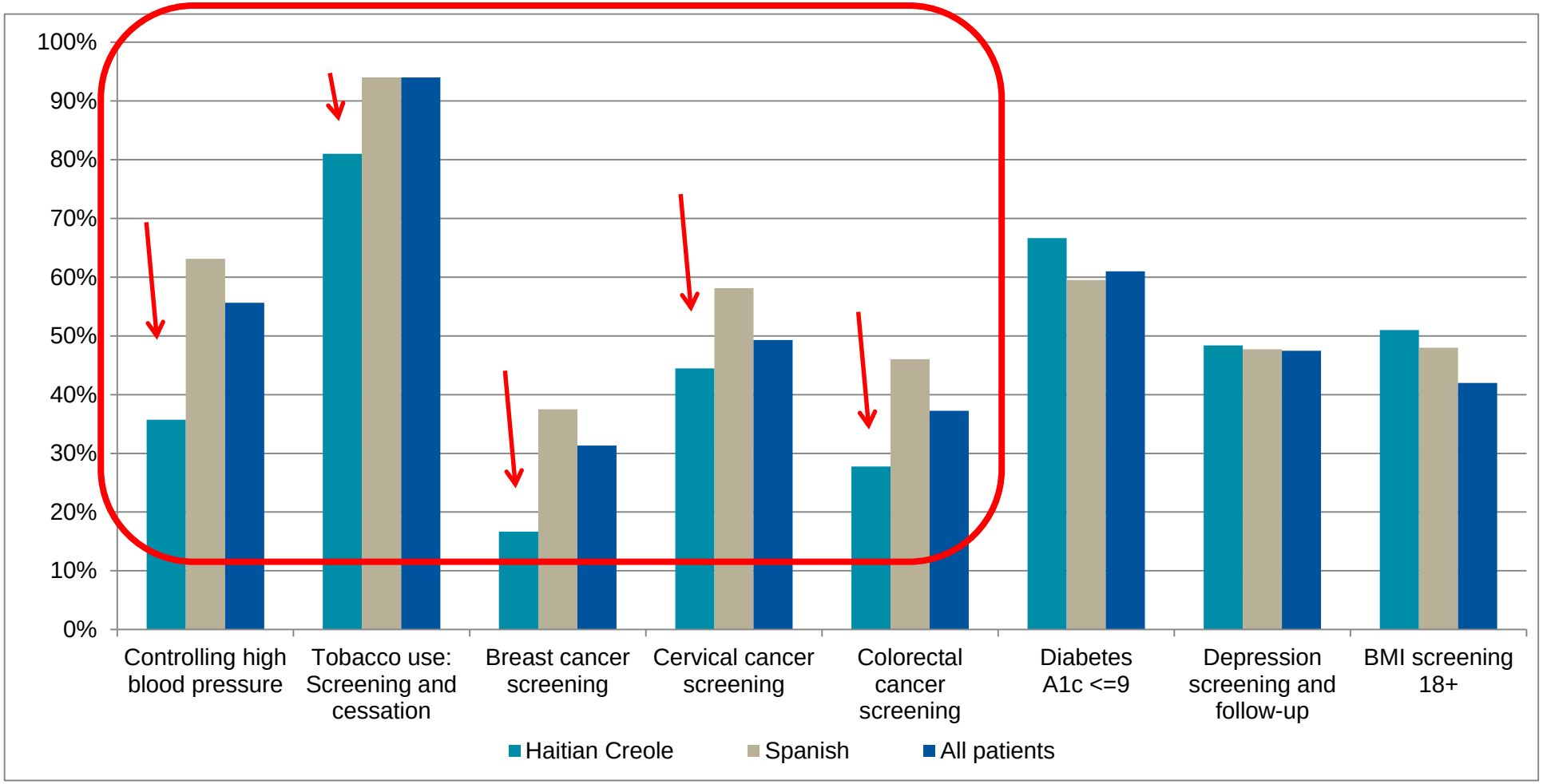
- Reading the graph:
  - **Solid black line** shows the **target** (40%) for this measure
  - **Dotted gray line** shows overall **average** for the period (36%)
  - **Bars** show % of patients meeting measure by subgroup
    - **Yellow bars** show significant results
    - **Blue bars** show non-significant results



BHCHP Quality Data by Language

BOSTON HEALTH CARE for the HOMELESS PROGRAM

- A data review from 2017 showed that Haitian Creole speakers (teal bars) fared worse on several quality measures as compared to other patients



Pause—participant input

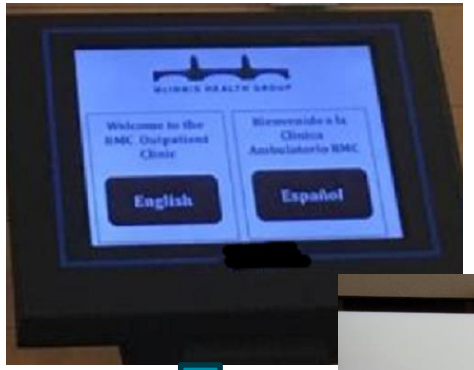
BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- What steps would you carry out to address these disparities (Menti Q)?

Example: Steps to improve language access (1)

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

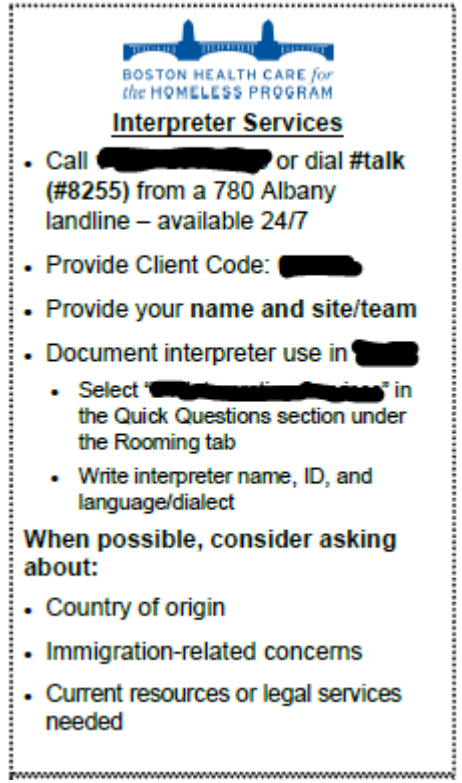
- Reached out to **patients:**
  - Shadowed patients in the clinic—followed them from start to finish to see how easy or hard it was to navigate through clinic
  - Surveyed patients (calling in, refills, appointments, referrals, etc.) to compare LOTE and English speakers
  - Added questions about interpreter use in the patient experience survey
- Made changes to **physical space:**
  - Updated clinic signage with Haitian Creole as well as English and Spanish
  - Modified self-serve check-in kiosks



Example: Steps to improve language access (2)

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Reached out to **other health centers**
  - How do they cater to patients who speak languages other than English (LOTE)?
- Educated and provided resources to **staff:**
  - Stressed importance of documenting preferred language correctly
  - Updated staff training to focus on importance of using interpreter
  - Phone line/interpreter card
  - Haitian provider gave talk on Haitian perceptions of chronic disease and why there might be gaps, as well as cultural context for how to approach
  - Skills workshop: Best practices in immigrant health care
  - Mindfulness of gaps (such as tabling/posters; brochures and handouts; resources within the electronic health record)



BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Interpreter Services

- Call [redacted] or dial **#talk (#8255)** from a 780 Albany landline – available 24/7
- Provide Client Code: [redacted]
- Provide your **name and site/team**
- Document interpreter use in [redacted]
  - Select "[redacted]" in the Quick Questions section under the Rooming tab
  - Write interpreter name, ID, and language/dialect

When possible, consider asking about:

- Country of origin
- Immigration-related concerns
- Current resources or legal services needed

Interpreter Services Domain – Patient Experience Survey

1,069 surveys were administered from October 2019 to April 2020

What is your preferred language?

- 89% English
- 8% Spanish
- 2% Other

Haitian/Creole (4)
Portuguese (6)
Arabic (6)
French (5)
Amharic (1)
Vietnamese (2)
Persian (1)

14% of respondents surveyed reported that they don't speak English very well.

***148 patients**

18 patients reported being treated unfairly because they don't speak English very well.

32% **need interpreters.**

*48 patients

However, 44% indicated that they are not always offered an interpreter.

*21 patients

Interpreter Services Domain – Patient Experience Survey (2)

155 surveys were administered from February 2021 to April 2021

- 41 respondents took the survey in Spanish (26% of all respondents)
  - 16 reported using interpreter services in the past year
    - 10 reported that staff always use interpreter services
    - 6 reported that staff sometimes use interpreter services
    - Nearly all (15/16) mentioned that interpreter services improved their experience

When Is It Helpful To Use An Interpreter? (top responses)
Getting information in the lobby
Picking up medications in the pharmacy
Talking with a doctor or nurse about a medical problem
Talking with a staff member about a case management question

Cultural Humility and Cultural Safety

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- Cultural humility: Openness and respect for differences
- Cultural safety: Recognition of power differences and inequities in health and the clinical encounter that result from social, historical, economic, and political circumstances

Conversations with Immigrant Patients

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- **Welcome** the patients to your clinic
  - Create a **safe space**
  - Sit down
  - Speak slowly, calmly
  - Look at the patient/family

- **Set the stage**
  - Make sure patient is aware of right to free interpreter
  - “I would like to ask you some personal questions that relate to your health.”
  - REINFORCE CONCEPT OF CONFIDENTIALITY
  - “**Tell me about your journey**”

How to use an interpreter

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Introduce interpreter to patient, use triangle formation, and talk directly to patient
- Avoid attempting to “get by” with provider’s or patient’s intermediate language skills, even if patient nods/ smiles/says it’s okay
- Using “ad hoc” interpreter can lead to gaps in communication and unsafe care
- Imperative to use professional interpreter if provider is not fluent since interpreter usage ensures fewer clinical errors

How to use an interpreter (2)

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- Interpreter must interpret everything
- Pause intermittently to allow interpreter to translate
- Avoid medical jargon, figures of speech, and acronyms
- Ask short, direct questions
- Avoid thinking out loud

How to use an interpreter (3)

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Ask patient to summarize
- Ask interpreter to interpret back if concern for confusion
- What to document:
  - Language (dialect)
  - Interpreter use – name, ID number
  - If patient refuses
  - If unable to obtain interpreter for some reason

- Avoid using staff member for quick interpretations – higher rate of errors, may not be clinically trained

Using interpreter is a legal mandate

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Using interpreter is a legal mandate
- Interpreter services must be provided to patients with limited English proficiency free of charge
  - Mandated by Title VI of 1964 Civil Rights Act
  - 2016 Affordable Care Act
- National Standards on Culturally and Linguistically Appropriate Services

Pause—participant input

- What are some of the harms of ***not*** using an interpreter (Menti Q)?

Interpreter Use Survey at BHCHP

- BHCHP conducted a survey in 2021 regarding interpreter use
  - At the request of Immigrant Health Committee
- The Interpreter Use Survey contains both quantitative and qualitative data
  - Quantitative: multiple choice, multiple answer, Likert scales, etc.
  - Qualitative: open-ended questions

Interpreter Use Survey: Overview

BOSTON HEALTH CARE for the HOMELESS PROGRAM

- 57 responses were recorded overall
- Responses were received between 6/28/2021 and 8/2/2021
- BMH was the primary work location for most respondents ➔
- About 46% of respondents speak at least one other language ➔

Do you speak another language(s)?	Yes	No	(blank)	Total	% of total
Full-time	15	17		32	47%
Part-time	7	9		16	44%
(blank)			9	9	0%
Total	**22**	**26**	**9**	**57**	**39%**
Total of those who answered this question	***22***	***26***		***48***	***46%***

Which one of the following location is your primary worksite(s)? (Select all that apply)	Total	% of total
BMH	40	70%
JYP Clinic	7	12%
BH	3	5%
NECHV	3	5%
PSI	3	5%
BHCHP Admin	2	4%
Street Team	2	4%
Kingston House	1	2%
MGH Clinic	1	2%
Other (please specify)	1	2%
Outreach	1	2%
WMS	1	2%
112 Southampton	0	0%
Casa	0	0%
Dental	0	0%
Family Team	0	0%
Father Bill's	0	0%
SKH	0	0%
St. Francis	0	0%
Transitions	0	0%

Interactions with patients who speak language(s) other than English (LOTE)

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- About 65% of respondents interacted with LOTE patients at least once a week
  - "Multiple times a week" was the most common answer (30% of respondents)
- However, only 40% of respondents said they used an interpreter most or all of the time
  - "Sometimes" was the most common answer (32% of respondents)

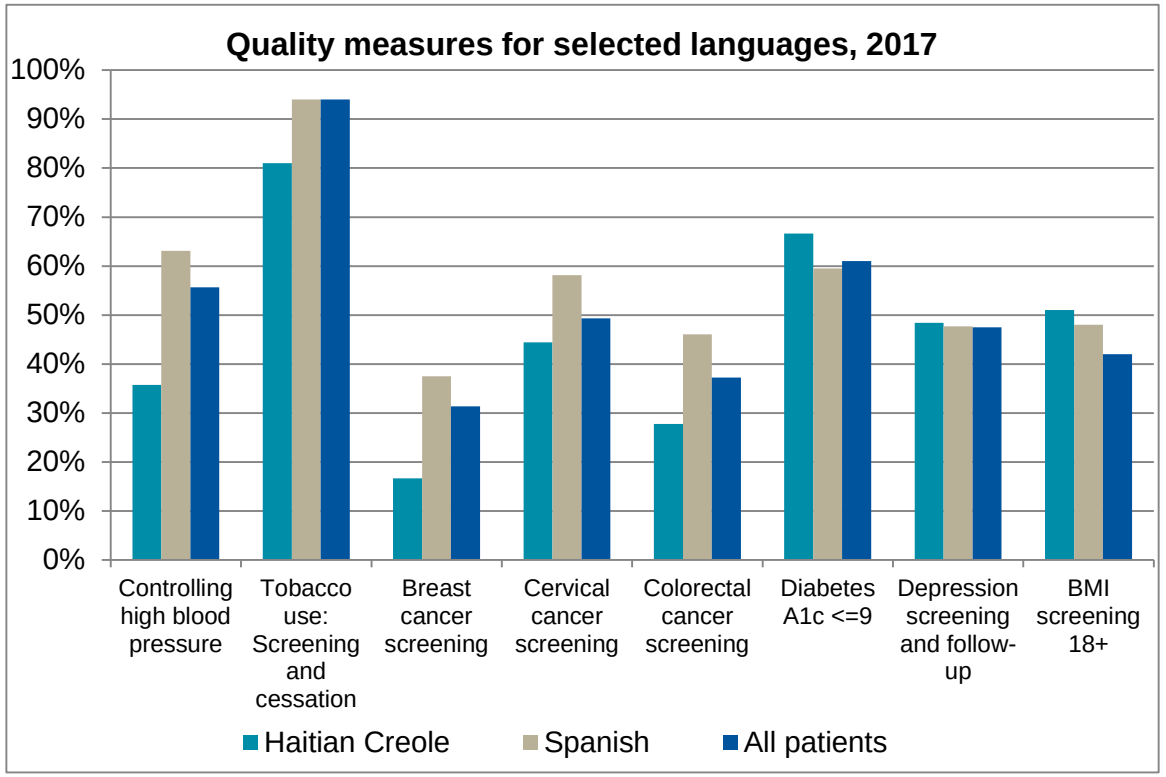
How often do you interact with patients who speak languages other than English (LOTE)?	Total	%
Never	1	2%
Once a Month	4	7%
A few times a month	13	23%
At least once a week	13	23%
Multiple times a week	**17**	**30%**
Everyday	7	12%
(blank)	2	4%
Grand Total	**57**	**100%**

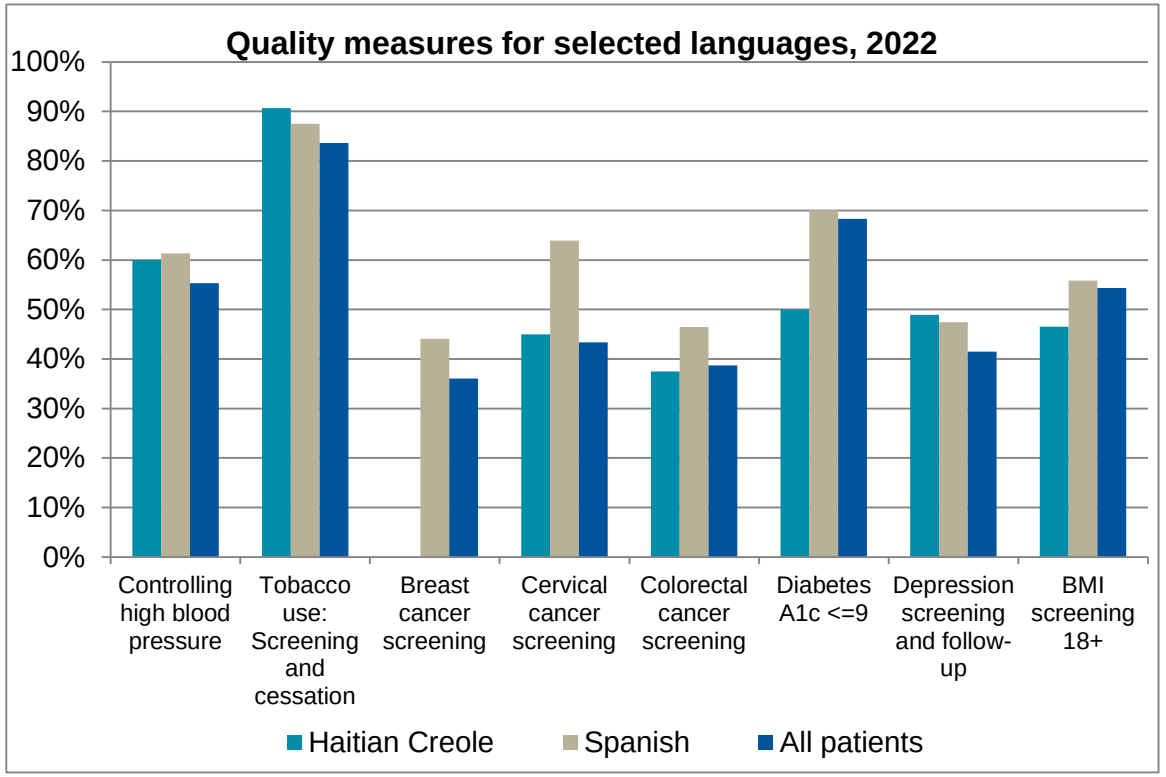
Do you use an interpreter (phone, other staff, etc.) for your interaction with LOTE patients?	Total	%
Always	7	12%
Most of the time	16	28%
Sometimes	**18**	**32%**
Rarely	10	18%
Never	3	5%
(blank)	3	5%
Grand Total	**57**	**100%**

** NOTE: Original survey referred to LEP patients (limited English proficiency). We have updated the exhibit to show current preferred term, LOTE.*

Language example: CY 2022 results

- Five years later, we saw improvements in many of the metrics
- But others worsened

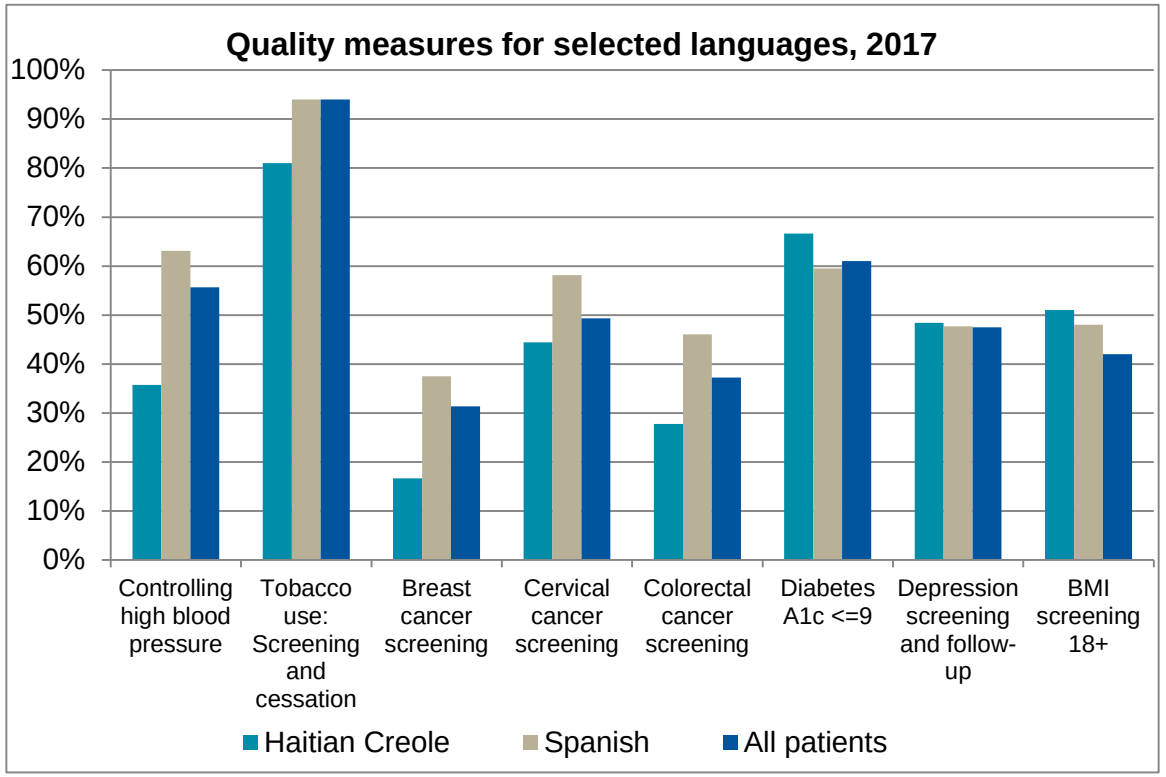


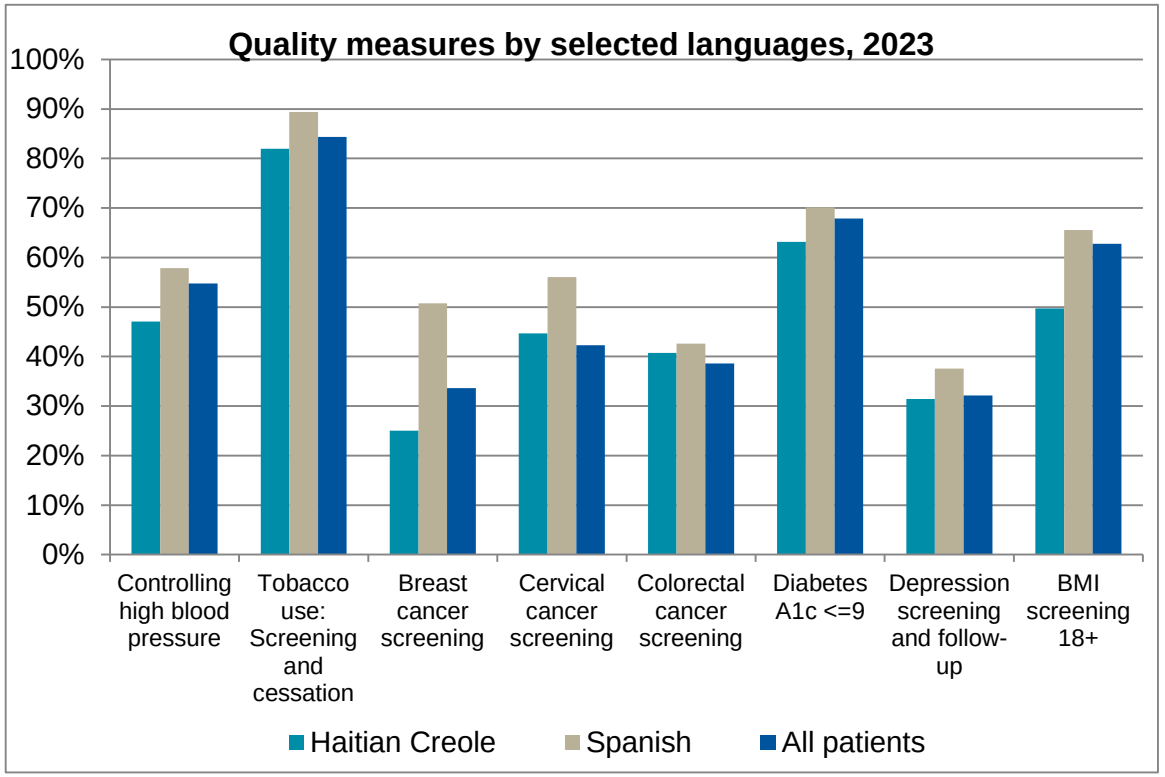


Language example: CY 2023 results

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

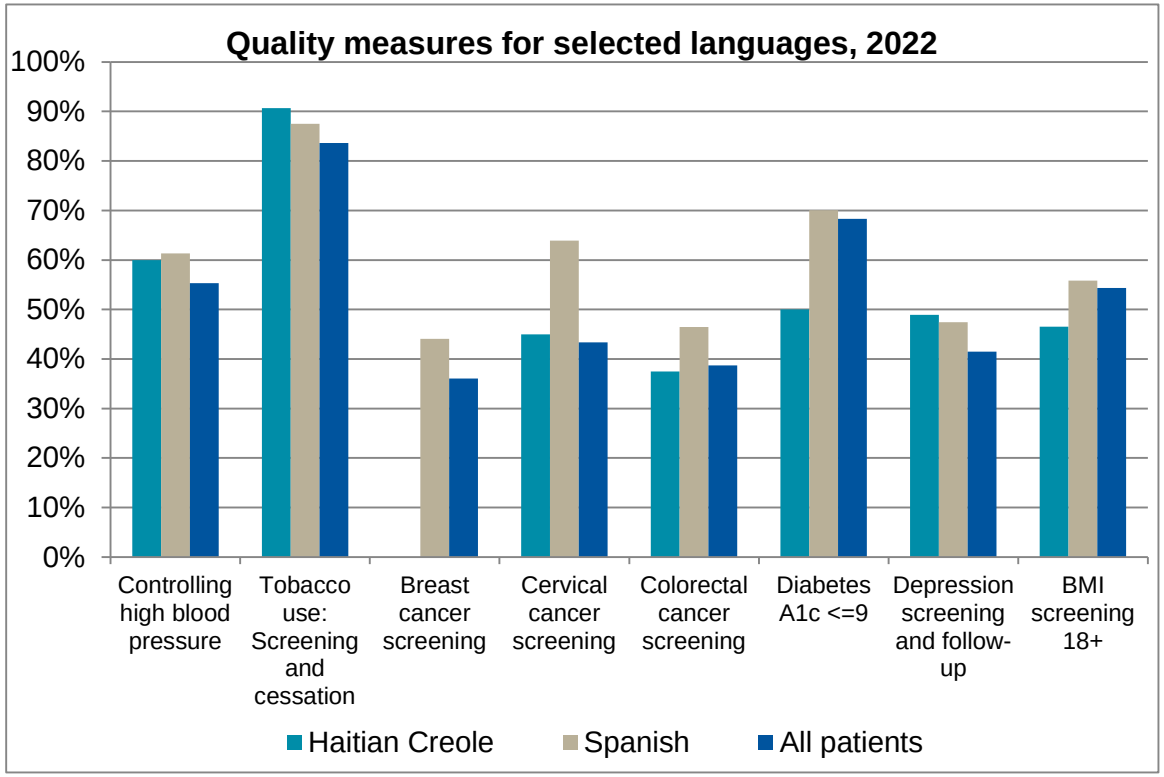
- 2017 results at bottom left; 2023 results at bottom right
- In 2023, age ranges changed for two screening measures: Breast cancer (40-74 instead of 50-74) and colorectal cancer (45-75 instead of 50-75)
- Results at right match 2017 criteria to facilitate comparison
- Impact of huge influx of LOTE patients in 2023

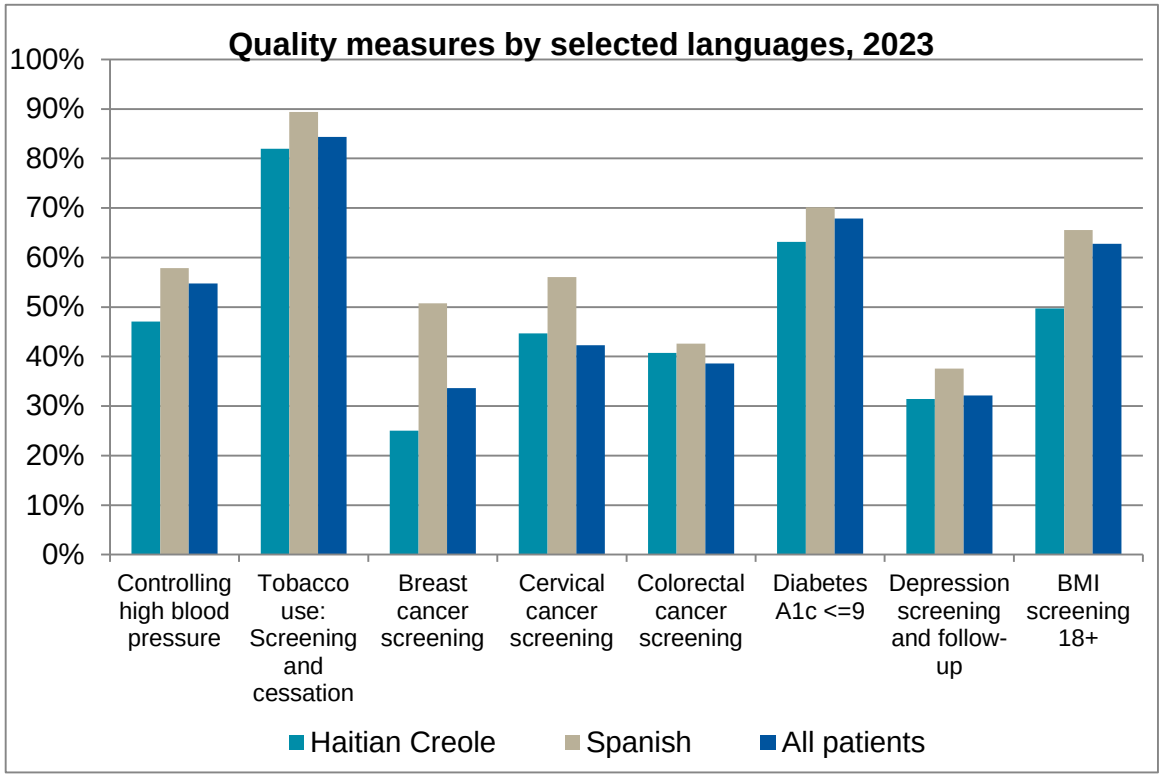




Language example: CY 2022 vs 2023 results

- 2022 results at bottom left; 2023 results at bottom right
- Depression Screening for patients who have a preferred language of Haitian Creole went from about 49% to 31% of patients meeting the measure
- Impact of huge influx of LOTE patients in 2023

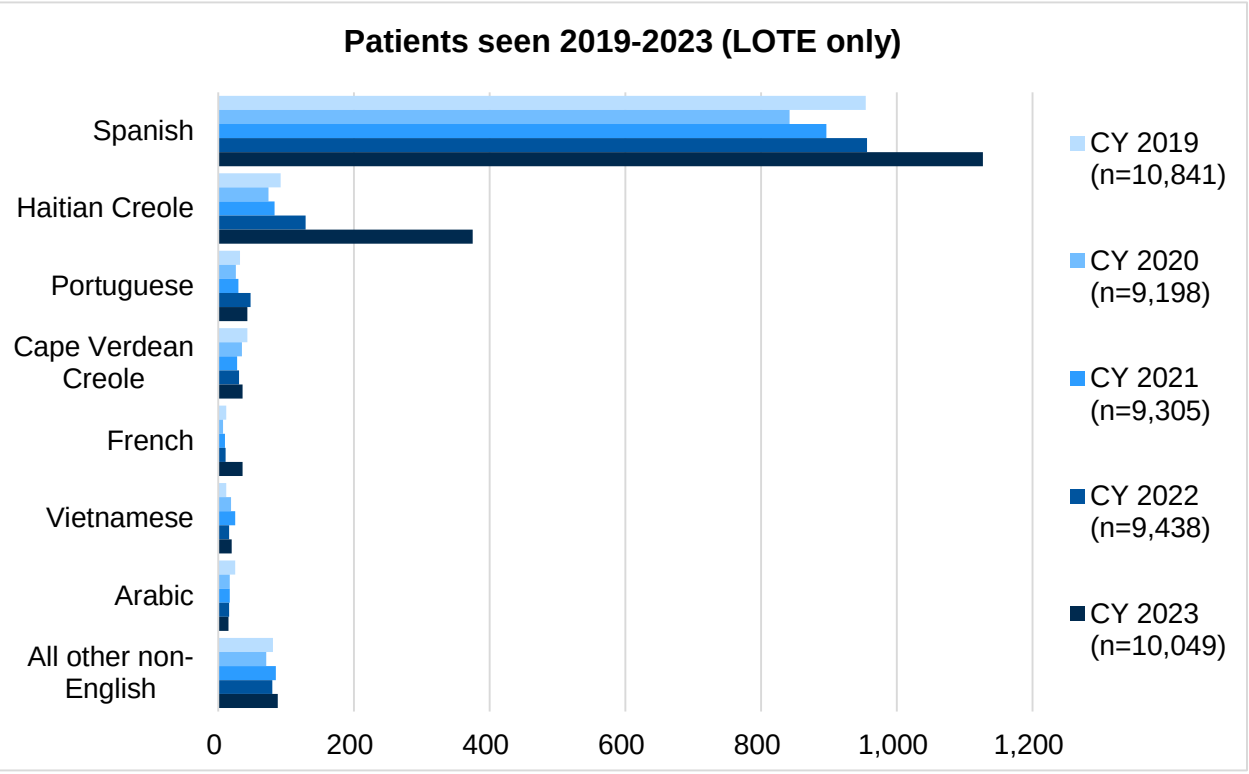


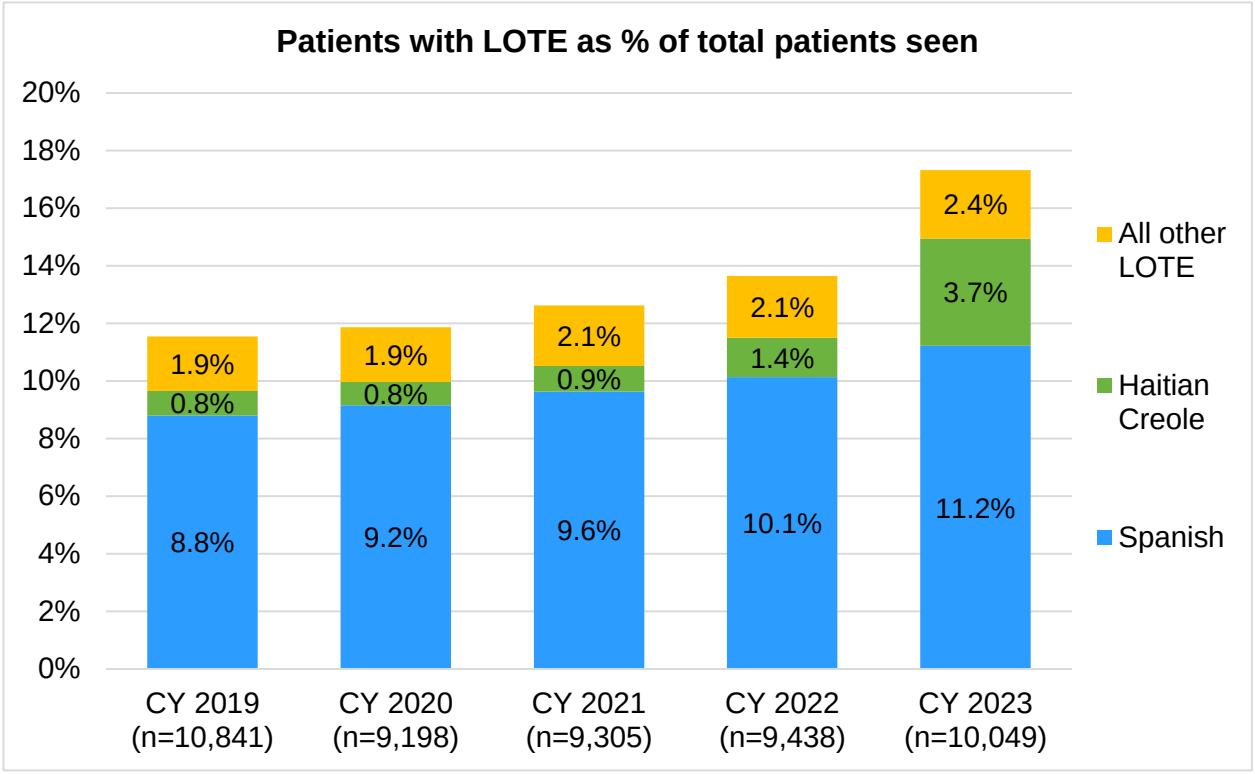


Challenge: Shift in patient population

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Bottom left: Increase in patients who speak languages other than English (LOTE)—total N
- Bottom right: Patients with LOTE as a percentage of total patients seen

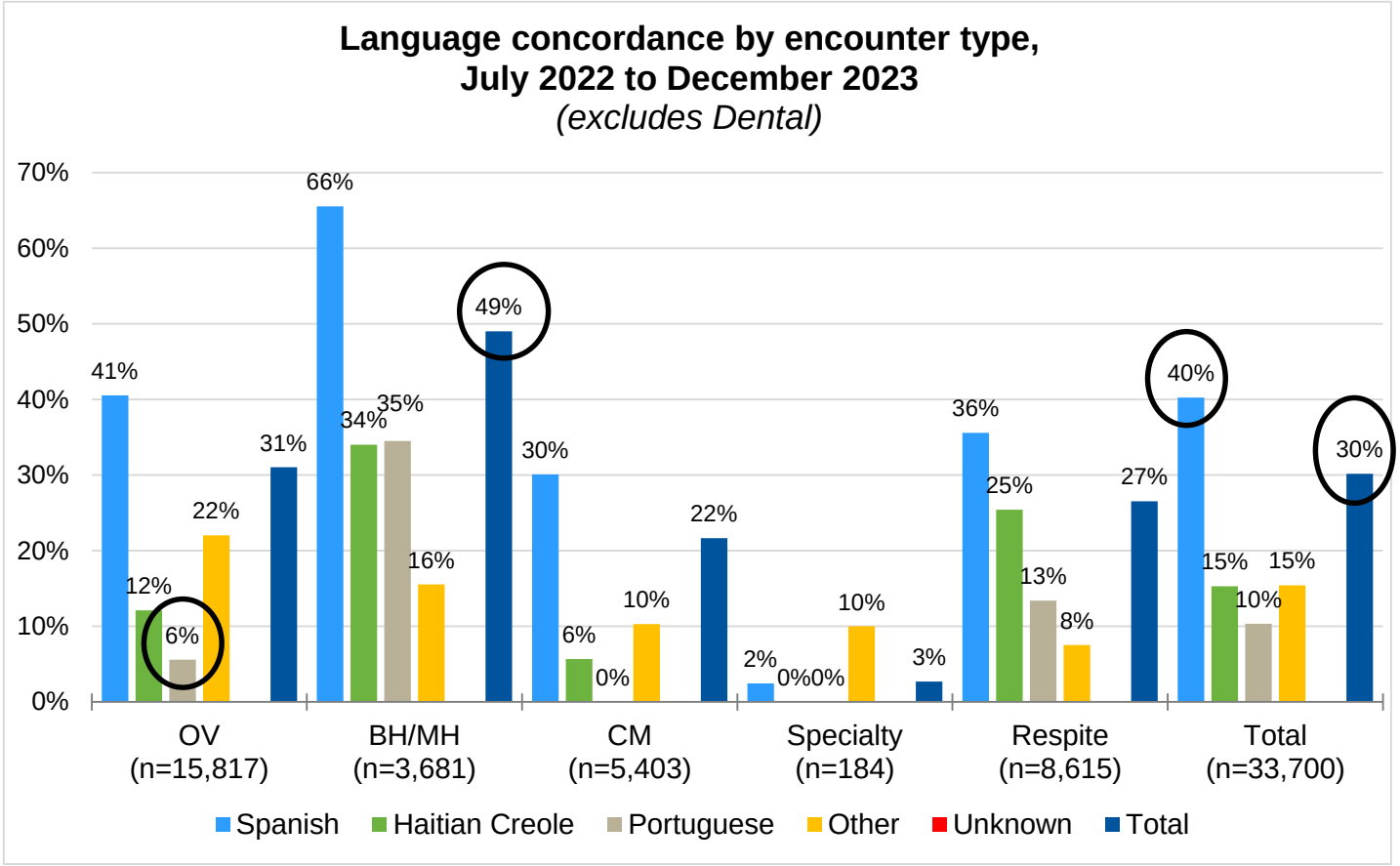




Concordance by language and encounter type

BOSTON HEALTH CARE for the HOMELESS PROGRAM

- The overall % of visits with language concordance was 30% (excluding Dental)
  - Spanish-speaking patients had the highest level of concordance for all visit types: 40%
  - Portuguese-speaking patients had the lowest concordance for office visits (OV): 6%
  - BH visits overall had the highest proportion of concordance: 49%
  - Specialty visits (Dermatology, Nephrology, Neurology, Optometry, Otolaryngology—ENT) had very low concordance, except English*



**NOTE: "Other" is patients who speak English but are flagged as needing interpreter*

Take-home points

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- For nearly 10 years BHCHP has critically examined the systemic inequities that drive poor health and unequal access to quality health care
- Analyzing clinical quality metrics helps shine a light on disparities within patient populations
- Gathering the perspectives from a variety of stakeholders deepens understanding of the drivers, and helps us to address disparities in patient care and access
- Interpreter usage improves accessibility in care settings for patients who speak languages other than English (LOTE)

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Appendix: Analyses in depth

Limitations

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Chi-Squared tests are sensitive to sample size. If a sample size is very large (think 500+) any small difference between observed and expected values will be statistically significant, but it might not be clinically relevant.

- This method does not allow you to control for other variables like age, SOGI, smoking status, BMI, and comorbidities.

- The Azara quality reports include patients who have had at least one qualifying visit in the respective time period

Patient Demographics

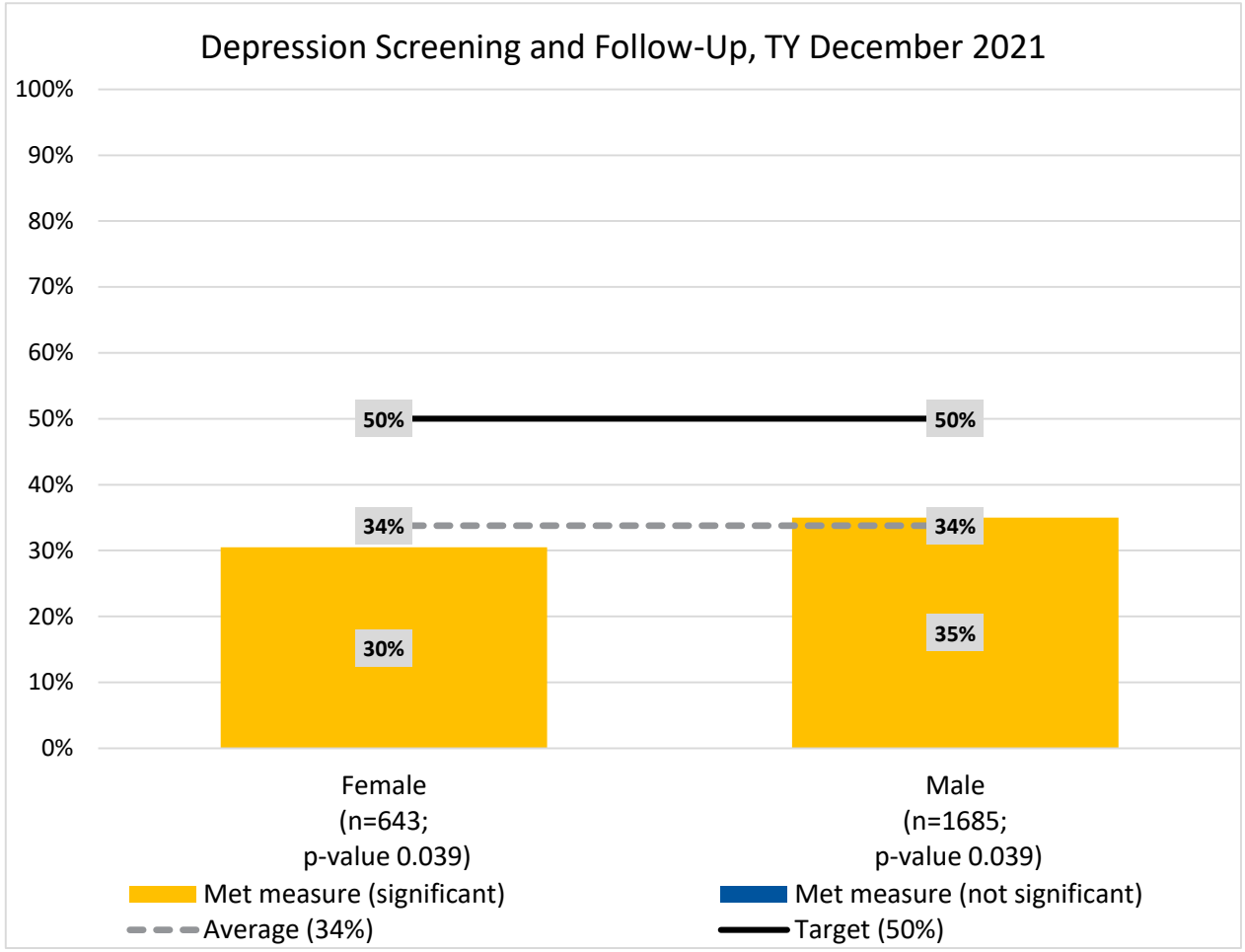
BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

- Ethnicity/Race Composite (including primary goals)
  - Latinx and Black
  - Latinx and White
  - Latinx and Other*
  - Non-Latinx and Black
  - Non-Latinx and White
  - Non-Latinx and Other*
  - Unreported/Refused to Report Ethnicity or Race (Patients with unknown, refused or blank ethnicity or race)
- Language
  - English
  - Haitian Creole
  - Spanish
  - Other
  - Unreported/Refused to Report Language
- Sex-Gender (Azara—Sex at Birth**)
  - F- Female
  - M- Male
  - O- Trans (patients who have their legal sex listed as Trans)

* “Other” includes American Indian/Alaska Native, Pacific Islander, Asian, More than One Race

** Azara uses legal sex and GI to create this field. If the legal sex matches the gender identity (e.g., they are both female), sex at birth will be female. If the legal sex is female and the gender identity is Transgender Male to Female, sex at birth would be determined as male.

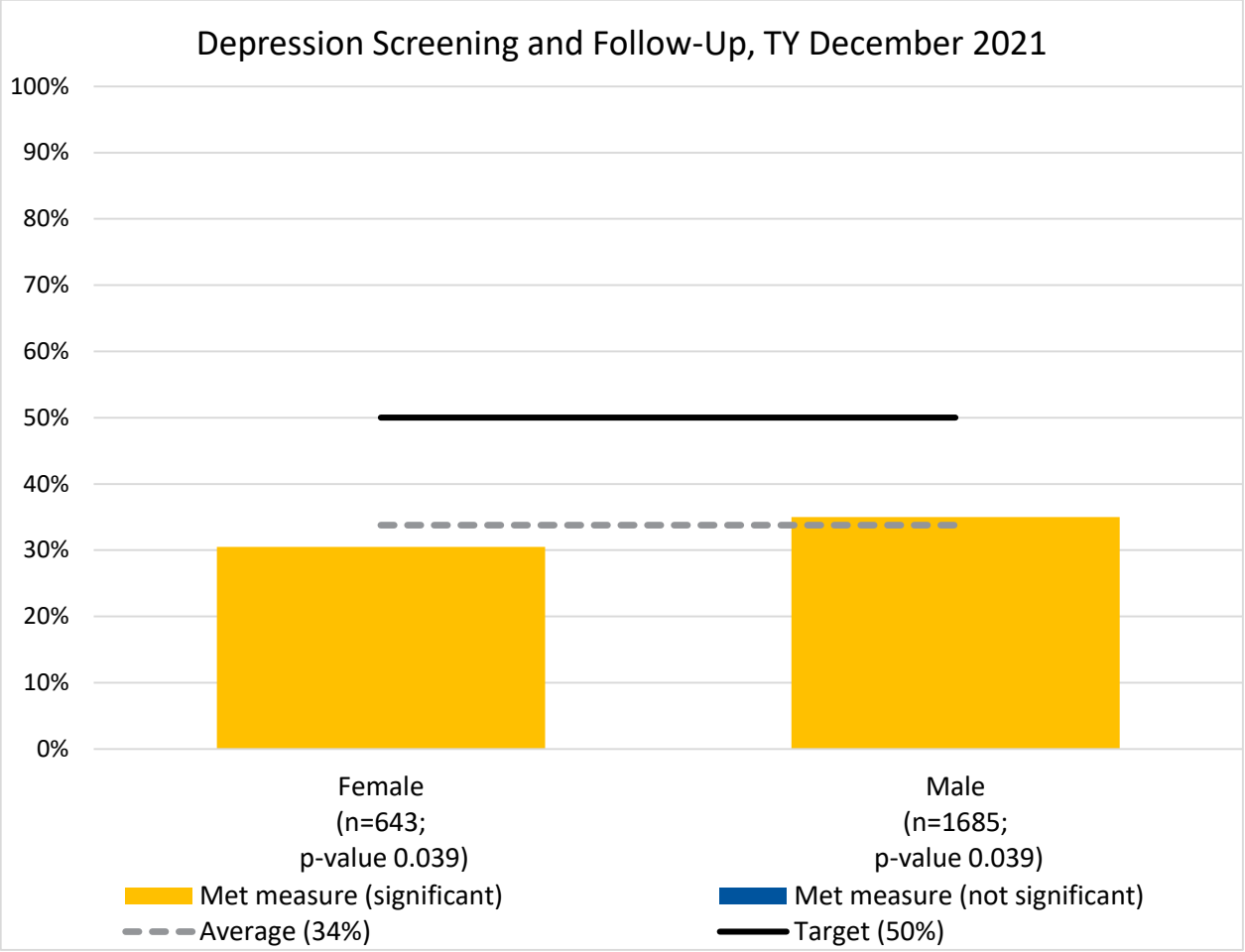
Example – TY Dec. 2021, Depression Screening by Sex-Gender

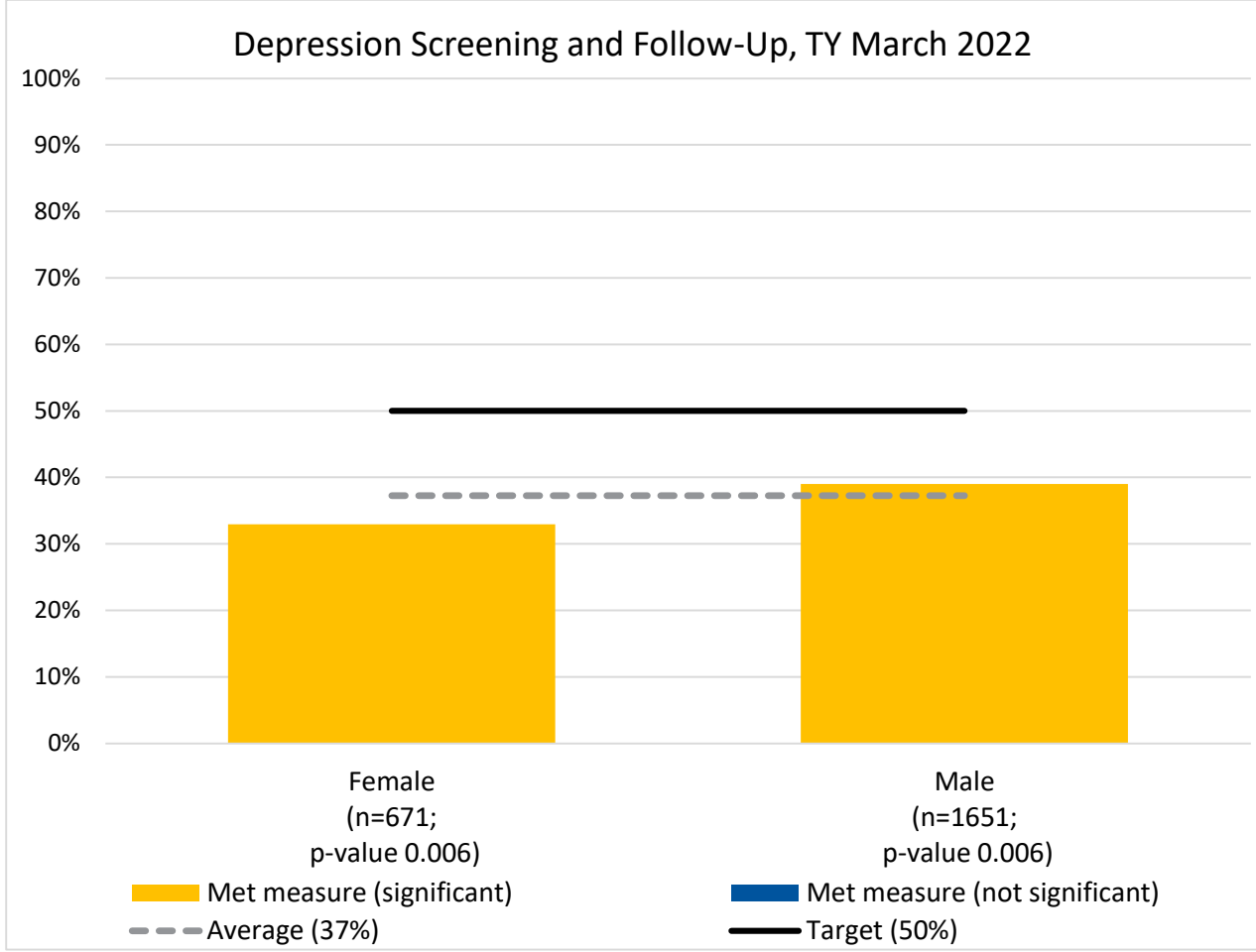


- 30% of eligible female patients & 35% of eligible male patients met the measure
- Both groups are statistically significant (indicated in yellow)
- Female patients are below & male patients are above the measure's average of 34% (dashed grey line)
- Both groups are below the target of 50% (bold black line)

Sex-Gender: Depression Screening and Follow-up, next TY

- In TY December 2021 and TY March 2022 both groups were significant
- For both trailing years, neither group reached the target of 50%





Depression Screening by Sex-Gender, Exposure vs. Outcome

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Sex-Gender	DSC	DSnC	Total
Female	196	447	**643**
Male	590	1,095	**1,685**
Total	**786**	**1,542**	**2,328**

- Exposure vs. Outcome
  - Exposure = Sex-Gender (Female or Male)
  - Outcome = Depression Screening Complete (DSC, yes or no)
- Four different Exposure vs. Outcome Groups
  - Female, Depression Screening Complete (FDSC - 196)
  - Female, Depression Screening not Complete (FDSnC - 447)
  - Male, Depression Screening Complete (MDSC - 590)
  - Male, Depression Screening not Complete (MDSnC – 1,095)

Depression Screening by Sex-Gender, hypothesis

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Is there a significant difference in depression screening completion between males and females?

- Null Hypothesis (no statistical significance) = no difference based on sex-gender meaning that the depression screening is completed in similar expected proportions for both groups
- Reject Null Hypothesis (statistical significance) = difference based on sex-gender meaning that the depression screening is completed in an unexpected way

Depression Screening by Sex-Gender, Expected vs. Completed

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Sex-Gender	DSC	DSnC	Total
Female	196	447	**643**
Male	590	1,095	**1,685**
Total	**786**	**1,542**	**2,328**

- Expected vs. Completed
  - Female Patients
    - Out of all patients who completed the screening about 25% were female [(196/786)*100 = 24.93%]
    - Out of the group of 2,328, about 28% of patients were female [(643/2328)*100 = 27.62%]
    - Since female patients constitute about 28% of the whole group, the expected completion out of the total completion [27.62% of 786] is 217 for equal distribution; however, the observed value (the number of female patients who actually completed screening) was 196
    - The greater the difference between observed and expected, the more of a likelihood of statistical significance!

Depression Screening by Sex-Gender, Expected vs. Completed

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Sex-Gender	DSC	DSnC	Total
Female	196	447	**643**
Male	590	1,095	**1,685**
Total	**786**	**1,542**	**2,328**

- Expected vs. Completed
  - Male Patients
    - Out of all patients who completed the screening about 75% were male [(590/786)*100 = 75.1%]
    - Out of the group of 2,328, about 72% of patients were male [(1,685/2,328)*100 = 72.4%]
    - Since male patients constitute about 72% of the whole group, the expected completion out of the total completion [72% of 786] is 566 for equal distribution; however, the observed value (the number of male patients who actually completed screening) was 590

Depression Screening by Sex-Gender, Chi-Squared

BOSTON HEALTH CARE *for the* HOMELESS PROGRAM

Sex-Gender	DSC	DSnC	Total
Female	196	447	**643**
Male	590	1,095	**1,685**
Total	**786**	**1,542**	**2,328**

$$\sum \frac{|(observed - expected)^2|}{expected}$$

FDSC + FDSnC + MDSC + MDSnC

$$\sum \frac{|(196-217)^2|}{217} + \frac{|(447-426)^2|}{426} + \frac{|(590-569)^2|}{569} + \frac{|(1,095-1,116)^2|}{1,116}$$

2.032 + 1.035 + .775 + .395 = 4.237

4.237 is the test statistic

Depression Screening by Sex-Gender, Significance

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Chi-Squared Distribution table

	P				
DF	0.995	0.975	0.2	0.1	0.05
1	.0004	.00016	1.642	2.706	3.841
2	0.01	0.0506	3.219	4.605	5.991
3	0.0717	0.216	4.642	6.251	7.815

For this analysis:

- Degrees of freedom (DF) = 1
- P value = .05 (95% confidence; 5% of the time differences are not due to chance, 95% differences due to chance no significance)
- Critical value = 3.841 (highlighted)

- Critical value vs. Test statistic
  - If the critical value is greater than the test statistic, then there is no statistical significance; if the critical value is less than the test statistic then there is statistical significance
  - Since 4.237 is greater than 3.841, we can conclude that the findings from this analysis are statistically significant (meaning that there is a statistically significant difference in the way that the depression screeners are completed for both the male and female patient groups)