Building <u>Meaningful</u> Diversity, Equity, and Inclusivity into Oncology Practice

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President: ACCC - Tennessee Oncology Practice Society (TOPS)

Disclosures

• Funding

- U54 CA0914010 (NCI)
- 09/01/2021-08/31/2025
- Meharry-Vanderbilt-TSU Cancer Partnership

Honoraria:

- Tennessee Oncology Practice Society
- South Carolina Oncology Society

Advisory Committee:

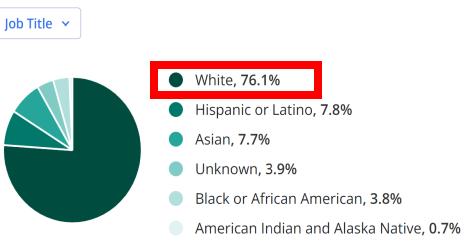
- Appalachian Community Cancer Alliance
- Seed funding from Bristol Myers Squibb and AstraZeneca

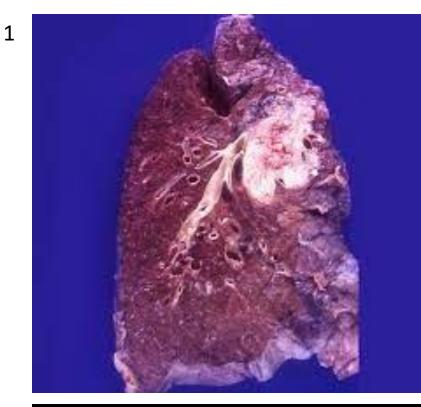
Disclaimer



CHIEF DIVERSITY OFFICER STATISTICS BY RACE

The most common ethnicity among chief diversity officers is White, which makes up 76.1% of all chief diversity officers. Comparatively, there are 7.8% of the Hispanic or Latino ethnicity and 7.7% of the Asian ethnicity.



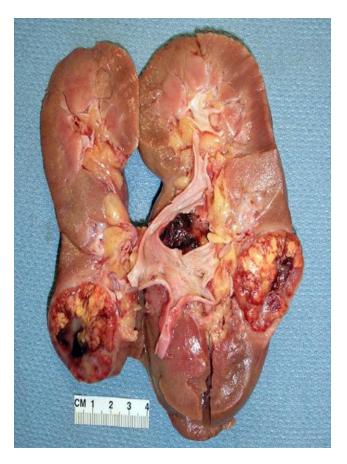


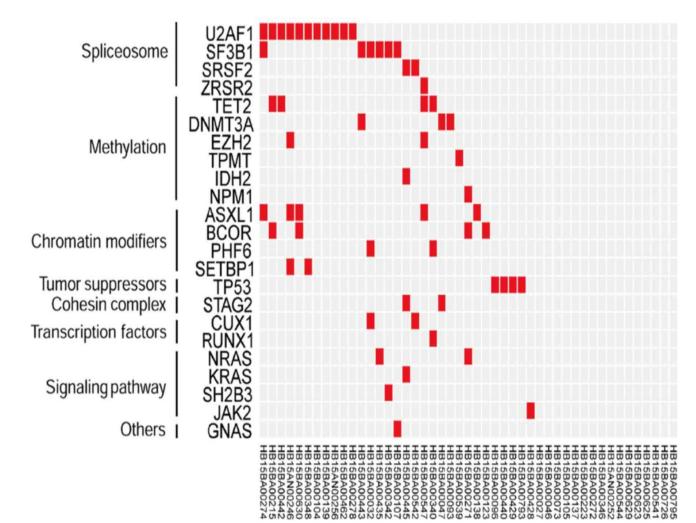






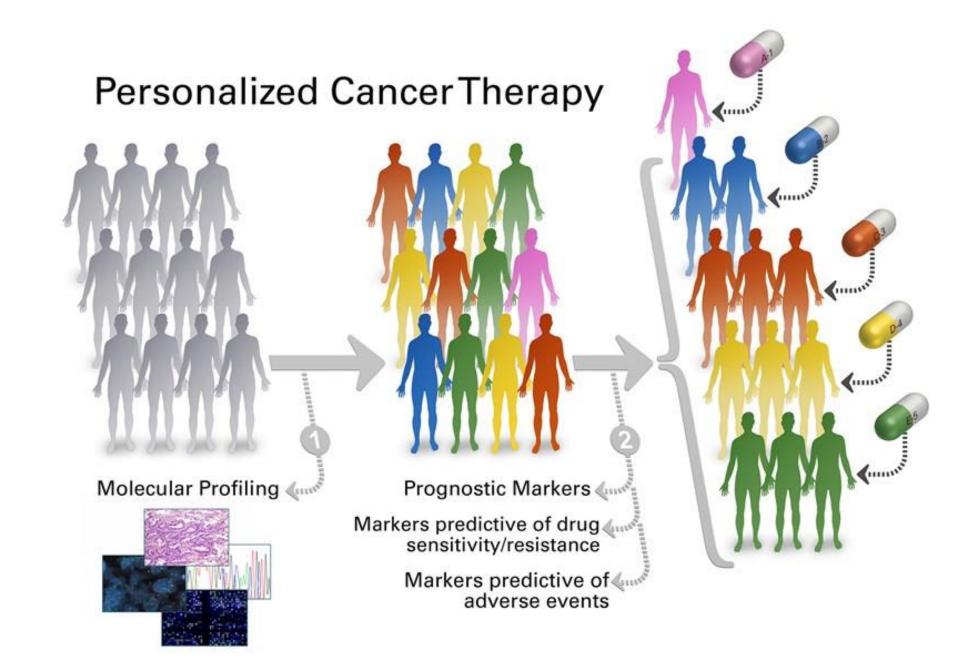








Zhao et al. Oncology Letters. 2019



Courtesy: Sheikh Khalifa Bin Zayed Al Nahyan Institute for Personalized Cancer Therapy at MD Anderson Cancer Center



Objectives

- <u>Why</u> does Equity matter? What is Equity Anyway?
- MOST IMPORTANT POINT OF TALK
- Strategic Overview, Domain Approach
- Take Home Points



WHY?

- Values: Justice, Solidarity, Integrity, Compassion
- Duty: Hippocratic Oath, Service to All

Why?



63 y/o black female (she/her/hers)

New metastatic NSCLC adenocarcinoma. 50 pack year smoking history (no LDCT screening) ECOG2, CKD2, HTN, COPD

FH: sarcoidosis

NGS: No current molecular targets, PDL1 70% Patient interested in immunotherapy and wants to know data supporting use

What do you tell her?

Immunotherapy Trial Representation

Racial Composition (%, N)*

Tumor Type	Clinical Trial and Treatment Agent	Trial Design and Population	Sample Size (N)	Caucasian	Black or African American	Asian	Other
Melanoma	CheckMate 067 ³⁵ Nivolumab +/– ipilimumab	Global phase III, previously untreated	945	97.5%	0%	1.1%	1.5%
				921	0	10	14
	CheckMate 037 ³⁶ Nivolumab	Global phase III, previously treated	405	98.3%	0.7%	0.5%	0.5%
				398	3	2	2
Squamous cell carcinoma of the head and neck	CheckMate 141 ³⁷ Nivolumab	Global phase III, previously treated	361	83.1%	3.6%	11.9%	1.4%
				300	13	43	5
Non-small cell lung cancer	CheckMate 057 ³⁸ (non-squamous) Nivolumab	Global phase III, previously treated	582	92%	3%	3%	3%
				533	16	17	16
	KEYNOTE 010 ³⁹ Pembrolizumab	Global phase II/III, previously treated	344 .	72%	4%	21%	1%
				246	13	73	5
		Global phase III	850 -	70%	2%	21%	7%
		previously treated		598	16	180	56
Renal cell carcinoma	CheckMate 025 ⁴¹ Nivolumab	Global phase III, previously treated	821 -	88%	1%	9%	3%
(clear cell)				720	5	74	22
Urothelial carcinoma	IMvigor211 ⁴² Atezolizumab	Global phase III, previously treated	931 -	72.1 %	0.3%	12.7%	14.8%
				671	3	118	138
Gastric and gastroesophageal	KEYNOTE 059 ⁴³ Pembrolizumab	Global phase II, previously treated	259 -	77.2%	1.9%	15.8%	5.0%
junction cancer (PD-L1+)				200	5	41	13

*General U.S. population racial composition: 76.6% white, 13.4% black or African American, 5.8% Asian, 18.1% Hispanic or Latino.

Why?



43 y/o black male (he/him/his)

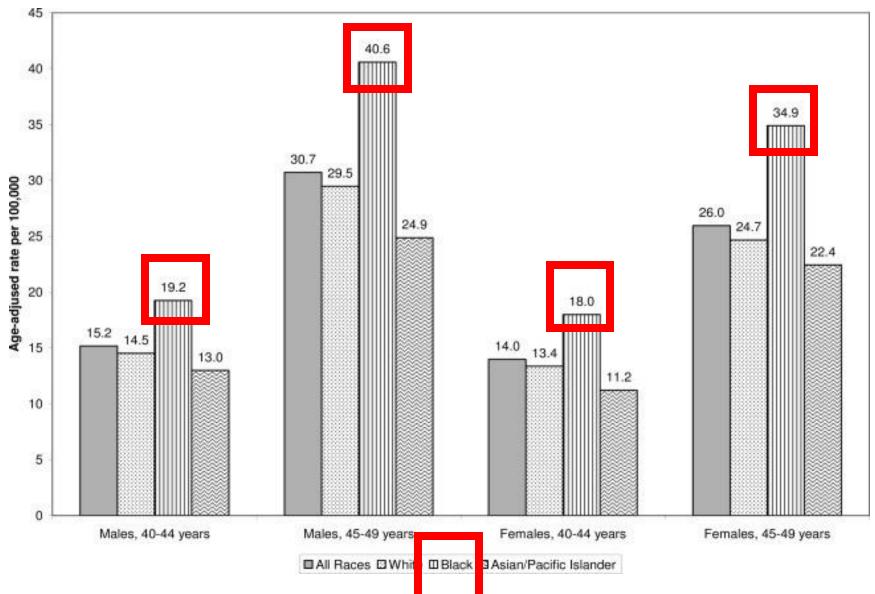
New metastatic colon cancer No significant PMH, works out, cares about fitness

FH: Colon Cancer in Mother 60s deceased

Patient is devastated. Asks how this could have happened to him?

What do you tell him?

Colorectal cancer in U.S. adults younger than 50 years of age, 1998–2001



Fairley et al. Cancer. 2006



Updated Colorectal Cancer (CRC) Screening Recommendations 2021

- Average Risk Age 45-49 (Category B)
- Racially Focused Recommendations: NONE

Rationale for Expanding Screening Guidelines

Incidence has always been high among young Blacks Now increasing in young Whites and Hispanics/Latinos Insufficient empirical evidence on benefit/harm of earlier CRC screening in Blacks NCI CISNET modeling does not support different screening strategies by race

Why?



39 y/o transgender Latina (she/her/hers)

PMH: Transitioned with gender affirming surgery and hormones ~10yrs ago, asthma, T2DM

FH: TNBC Mother Age 65 (dx 2mo ago)

Interested in breast cancer screening given her mother's recent diagnosis. Wants to know if USPSTF and NCCN guidelines include her? Wondering if her chance of BRCA1/2 mutation is greater than white women?

What do you tell her?

Transgender Patient Data*

Extrapolated risk from cisgender women HRT studies

- Gooren et al (2013) Incidence Rate = 4.1 per 100,000py TW, 170 per 100,000py CW
- Brown and Jones (2015) Incidence Ratio = 0.7 (95% CI 0.03, 5.57) vs. CM

Institutional Best Practices

- Fenway Health
- UCSF Center for Excellence for Transgender Health
- Endocrine Society Clinical Practice Guidelines

LatinX and Non-White Hispanic Data**

- Lower BC incidence, but younger age, more TNBC
- BRCA1/2 pathogenic allele frequency may be higher
 - Regional BRCA 1/2 variants
 - More VUS due to incompletely understood
- NCCN eligible for BRCA 1/2 testing
 - ~10% NHW
 - ~25% LatinX

*Parikh et al. RadioGraphics.2019 ** Herzog JS, et al. Nature.2021 **Weitzel et al. J. Am. Soc. Clin. Oncol.2013

WHY?

- Values: Justice, Solidarity, Integrity, Compassion
- Duty: Hippocratic Oath, Service to All
- Practice: Professionalism, Informed Shared Decision Making
- Performance: Standards, Safety, Patient Experience, Outcomes

Equal Treatment = Equal Outcome

Odom BD et al. Active surveillance for low-risk prostate cancer in African American men: a multi-institutional experience. *Urology*. 2014

Spratt DE et al. Individual patient data analysis of randomized clinical trials: impact of Black race on castration-resistant prostate cancer outcomes. *Eur Urol Focus*. 2016

Dess RT et al. Association of Black Race with prostate cancer-specific and othercause mortality. *JAMA Oncol.* 2019

George DJ et al. A prospective trial of abiraterone acetate plus prednisone in Black and White men with metastatic castrate-resistant prostate cancer. *Cancer*. 2021

WHY?

- Values: Justice, Solidarity, Integrity, Compassion
- Duty: Hippocratic Oath, Service to All
- Practice: Professionalism, Informed Shared Decision Making
- Performance: Standards, Safety, Patient Experience, Outcomes

ACCOUNTABILITY

NEWS 16 February 2023

FDA to require diversity plan for clinical trials

US regulatory agency makes 'big change' to increase the number of participants from under-represented groups in drug testing.

Enhancing Oncology Model

EOM seeks to improve quality of care and equitable health outcomes for all EOM beneficiaries, including but not limited to:

	EOM Requirement	Description			
1	Incentivize care for underserved communities	 Differential MEOS payment to support Enhanced Services (base: \$70 PBPM; \$30 PBPM, outside of TCOC accountability, for dual eligible beneficiaries) TCOC benchmark will be risk adjusted for multiple factors, including, but not limited to, dual status and low-income subsidy (LIS) status 			
2	Collect beneficiary-level sociodemographic data	EOM participants will collect and report beneficiary-level sociodemographic data to report to CMS for purposes of monitoring and evaluation			
3	Identify and address health-related social needs (HRSN)	 EOM participants will be required to use screening tools to screen for, at a minimum, three HRSN domains: transportation, food insecurity, and housing instability Example HRSN screening tools: NCCN Distress Thermometer and Problem List Accountable Health Communities (AHC) Screening Tool Protocol for Responding to and Assessing Patient's Assets, Risks, and Experiences (PRAPARE) Tool Collect ePROs from patients, including a HRSN domain* 			
4	Improved shared decision-making and care planning	EOM participants will be required to develop a care plan with the patient, including discussion of prognosis and treatment goals, a plan for addressing psychosocial health needs, and estimated out-of-pocket costs			
5	Continuous Quality Improvement (CQI)	EOM participants will be required to develop a health equity plan as part of using data for CQI			

Center for Medicare Services. June 2022

Objectives

- What is Equity? <u>Why</u> does it matter?
- MOST IMPORTANT POINT OF TALK
- Strategic Overview: A Domain Approach
- Take Home Points

What is Equity?

DISPARITY

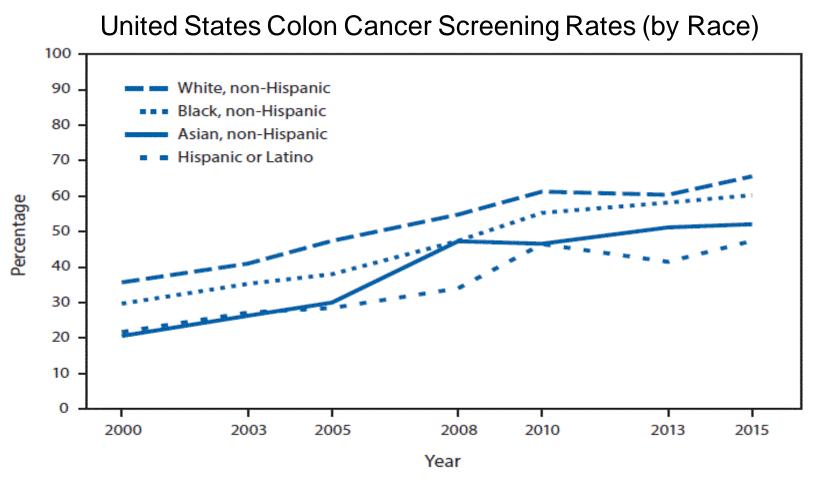


???

Health Disparities

are **preventable** differences the burden of disease, in injury, violence, or opportunities to achieve optimal health that are by socially experienced disadvantaged populations.

~CDC Nov. 2020



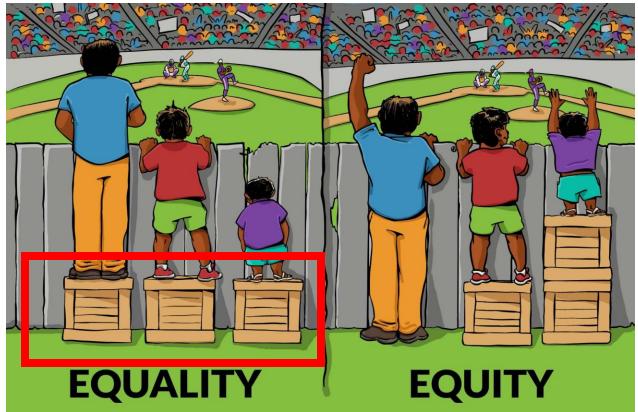
Health Equity

DISPARITY

IOM 6th Domain:

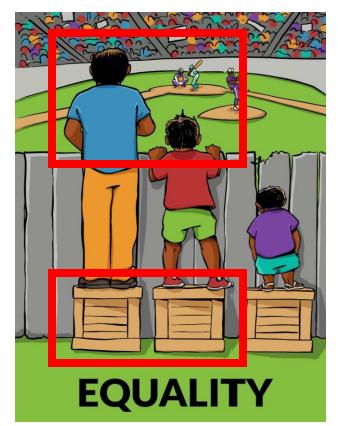
[Health] Equity is **providing care that** <u>does not vary in quality</u> because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status

Quality Oncology Practice Initiative Committee on Cancer



Definitions: Quality vs. Equality vs. Equity

100%





How can we support and recruit from these sites?

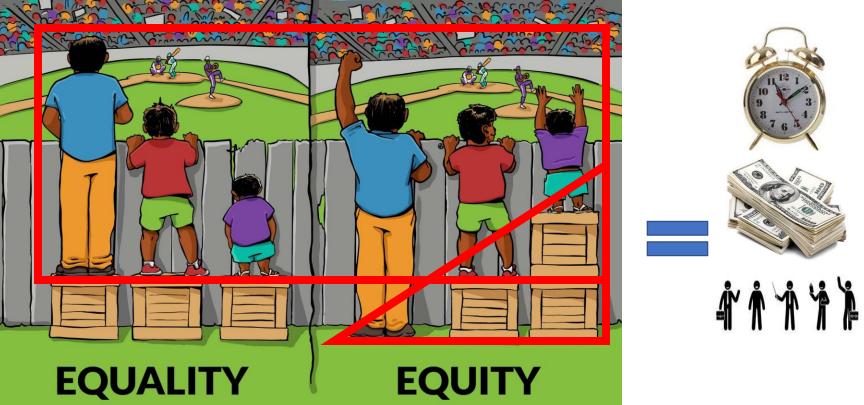
100%

Health Equity

ACCC:

[Health] Equity is achieved when all individuals have the opportunity to reach their full health potential, AND no one is held back from achieving this potential due to social position or other socially determined circumstances.

DISPARITY



Get to know your people

Socially Disadvantaged Populations (Intrinsic)

- Women
- African Americans
- Appalachian Poor
- Asian Americans
- Elders
- Immigrants/Refugees
- Latinos/Hispanics
- Persons with Disabilities

- LGBTQA community
- Native Americans
- Overweight People
- Prisoners
- Religious Minorities

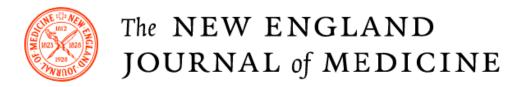
Smedley, Stith, and Nelson. IOM 2003

Social Determinants of Health (Extrinsic)

- Early Childhood Development and Educational Opportunities
- Occupation, Employment, Workplace Safety
- Income Level
- Access to Housing and Utilities
- Food Insecurity

- Safe Air, Water, Toxin-Free Environment
- Neighborhood Conditions and Physical Environment
- Exposure to Crime and Violence
- Transportation Availability
- Social and Community Inclusivity

NEJM Catalyst. 2017



Perspective A Data Infrastructure for Clinical Trial Diversity

David Blumenthal, M.D., M.P.P., and Cara V. James, Ph.D.

April 27, 2022 DOI: 10.1056/NEJMp2201433

URGENT: Need robust data on race and ethnicity in electronic databases

Advantage: Improve speed and efficiency in identifying diverse people for clinical studies Challenge: Reluctance to ask/answer due to discomfort or fear of how data will be used

Objectives

• What is Equity? <u>Why</u> does it matter?

• MOST IMPORTANT POINT OF TALK

• Strategic Overview, Domain Approach

• Can equity in research translate to equity in practice?

Structural Commitment

Approach:

Disorganized Random Chasing Trends No oversight No alignment

<u>Results:</u>

Moral Injury Burnout Distrust/Disillusionment Wasted Resources Individual Reliant Not Sustainable No Capacity Building Defensive of Criticism



Approach: Organized Strategic Value/Mission Driven Evaluative Adaptive/Learning

<u>Results:</u> Supportive Reflective Coalition Building Efficient/Targeted Organization Reliant Sustainable Capacity Building Accepting of Criticism

EDITORS' PICK

12 Ways CEOs And Companies Fail Chief Diversity Officers

4. CDOs Are Hired Into Haphazardly-Conceived Jobs

In too many businesses, CEOs jumped on the 'everybody else is doing it bandwagon' and created CDO positions without being entirely clear about what the role was really supposed to be and do. In the weeks after George Floyd's

5. CDO Roles Are Lopsidedly HR-Focused

Like financial operations, communications, human resources, marketing, and legal affairs, DEI should be a cross-business function. In many places it's isolated to one area of the company: HR. Some DEI professionals ascend to the CDO job

8. DEI Work Isn't Deeply Connected To The Business Strategy

It's painfully apparent to many CDOs that the work they lead isn't nearly as connected as it should be to other parts of the business. With the exception of demographic representation numbers, the CEO and executive leadership team usually don't have the same expectations for KPIs; the same shared, enterprisewide accountability standards; and the same strategic concern for DEI as they do other things. Most CDOs strongly believe that good business strategy has DEI deeply, measurably, and sustainably imbedded into its every dimension.

Values, Mission, Strategy, and Plan

Support culture and system where work environment and care experience identifies and embraces diverse identities to enhance patient and staff centered outcomes

MISSION	POLICY		
Human Focused	Personalized Care Experience		
Patient Partnered	Implementation Prioritizes Patient		
Seek Non-Medical Expertise	Non-Medical Partners, Advisory Council		
Values/Fosters Diversity	Hiring, Leadership, Promotion		
Deliberative and Reflective	Plan of Action, Committee, Analysis		
Accountable	Accepting of Failure as Opportunity		



EXAMPLE FRAMEWORK:

American Cancer Society Health Equity Principles April 2020 Report

Objectives

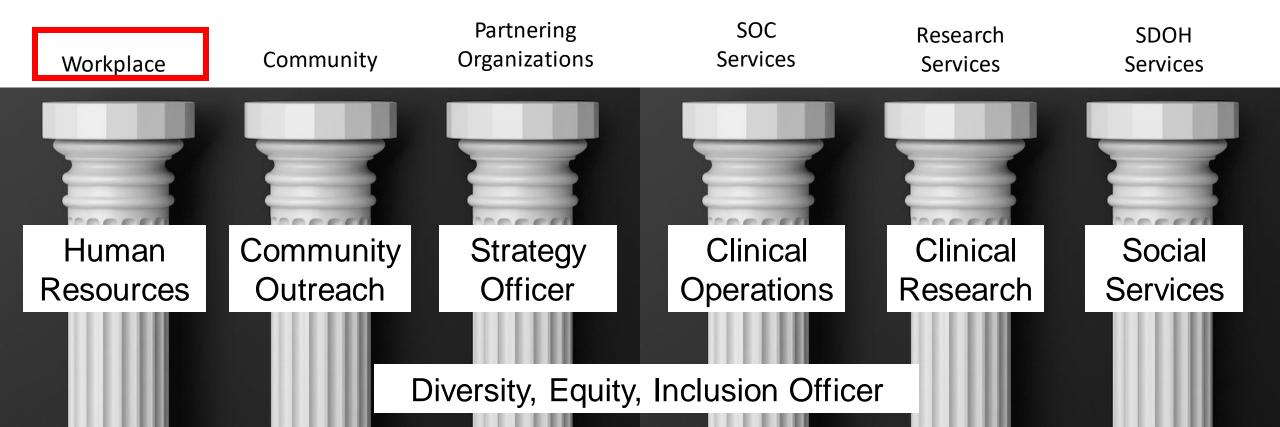
• What is Equity? <u>Why</u> does it matter?

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Strategic 'Logic Model' Framework

Inputs, Resources, Priorities, Plan

Operations, Delivery, Outcomes, Analytics



Workplace

Most control to change, but can be a trap

Personnel

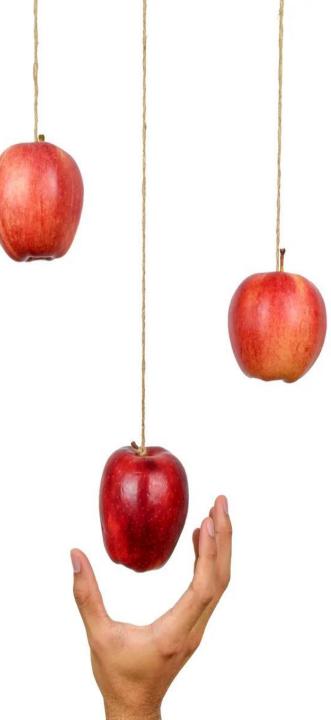
- Demographics
- Skills
- Experience
- Interest

Recruitment/Investment

- Training
- Credentialing
- Leadership
- Career Growth
- Mentorship

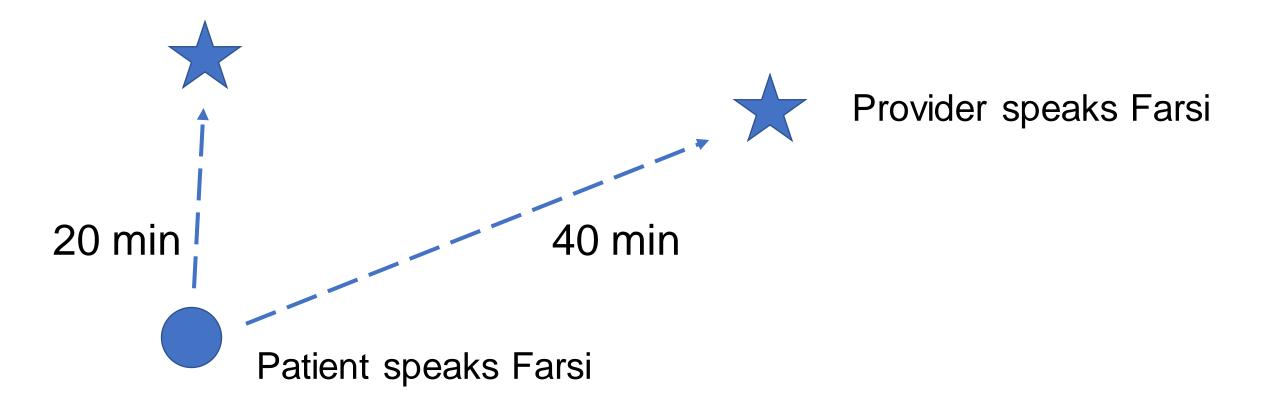
Sites

- Population
- Services
- Resources
- Allocation



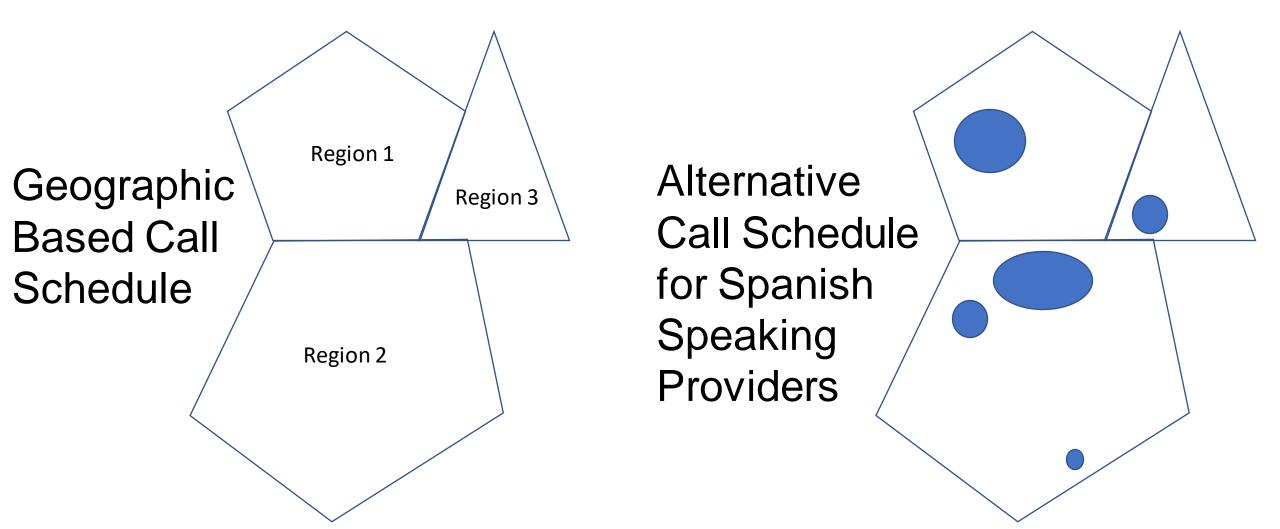
Workplace Application Examples

Patient Centered Referral Intake Process (does not assume geographic convenience is most important)



Workplace Application Examples

Utilizing Diverse Skills to Improve Patient Communication



Workplace Application Examples

- Training for Quotas, Compliance, and Benchmarking
 - Generic
 - Not Targeted or Purposeful to Strategy
 - Not Partnered with Staff Career Plan
 - Minimal Follow Up with Little Capacity Building
- Training for Mentorship, Leadership, and Career Growth
 - Tailored to staff/team wants and needs
 - Purposeful and action oriented
 - Paired with overall career growth plan
 - Follow up to build independence, mastery, and trainer capacity

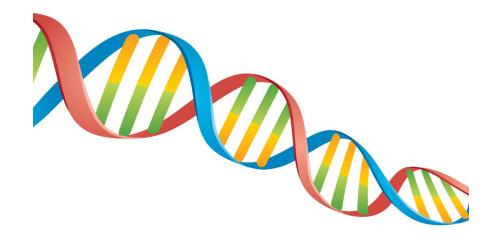
Strategic 'Logic Model' Framework



PROBLEM:

Genetic Counseling Services Not Available

OSH Referral not covered by NI or TennCare Patients receive anticipatory letter of OOP costs Few patients follow through with referral



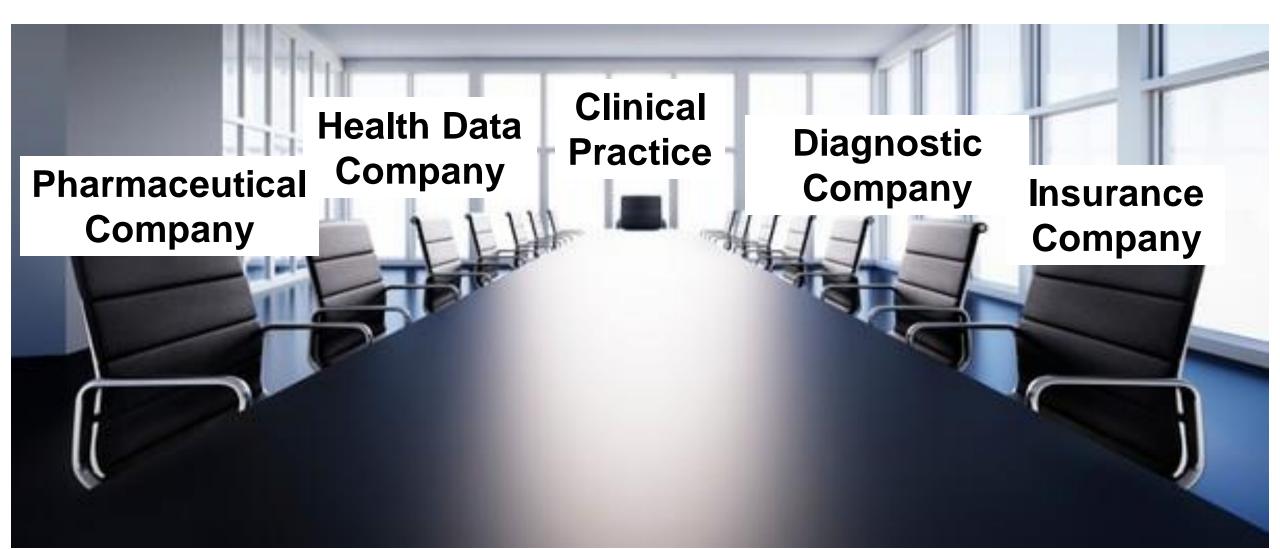
SOLUTION:

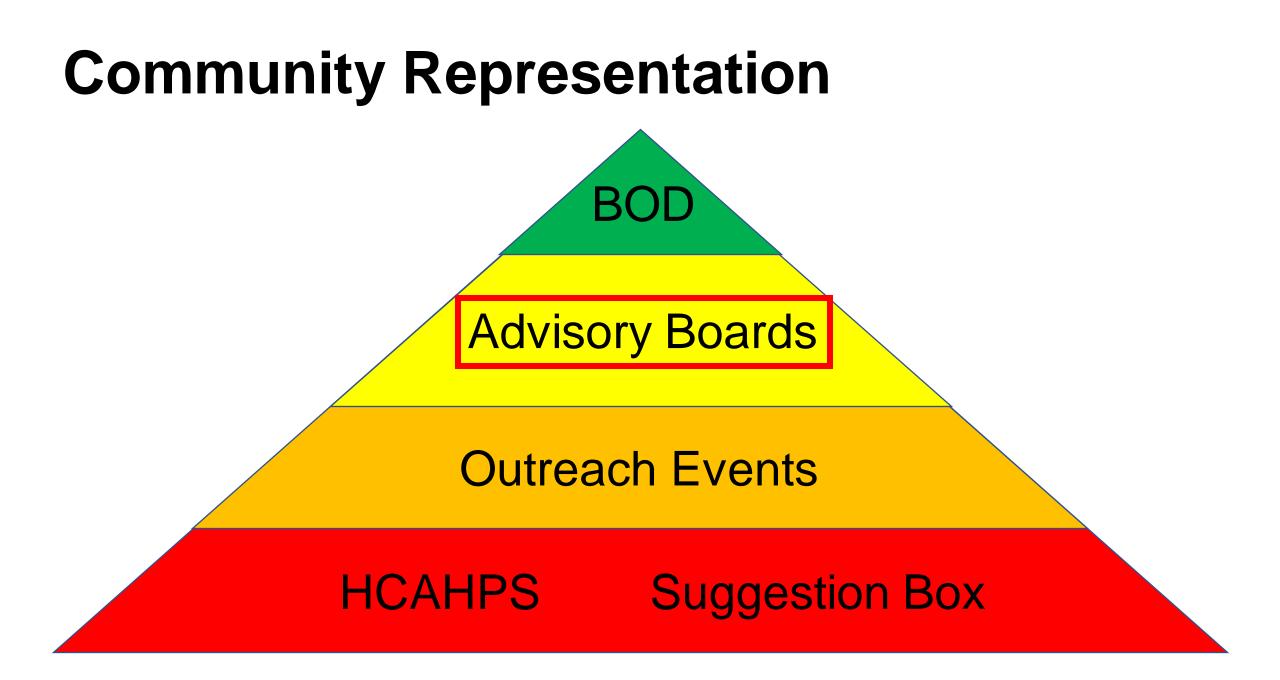
Provide Genetic Counseling Through "Patient Centered" Research

Provider recommends patient.
<u>Patient</u> receives and navigates email.
<u>Patient</u> fills out and navigates questionnaire.
<u>Patient</u> watches series of videos.
<u>Patient</u> completes a test and receives score.
<u>Patient</u> tracks online progress.
<u>Patient</u> receives notice of referral.



Organizations





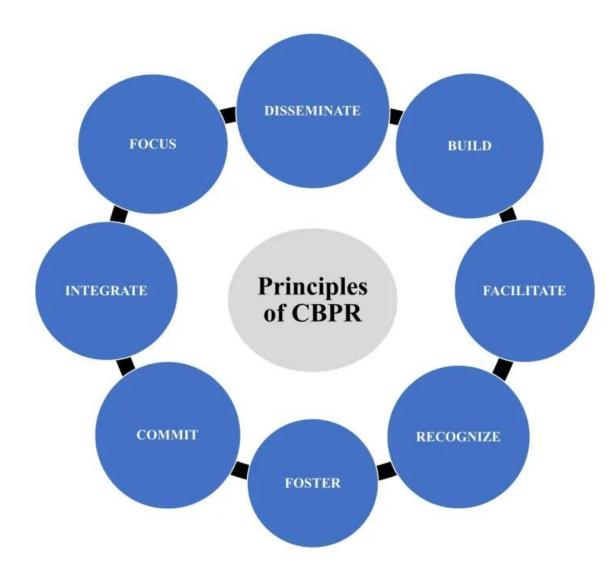


Community Advisory Boards

UNC Lineberger Advocates Collaborate with Researchers and Providers



https://unclineberger.org/community-outreach/community-advisory-board/





Community informed

Community as adviser Community involved

Community as collaborator

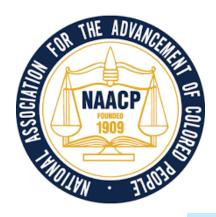
Community directed

Community as leader

Greater Community Engagement

Organizations







An Affiliate of the **CANCER SUPPORT COMMUNITY**



AL-MAHDI ISLAMIC CENTER



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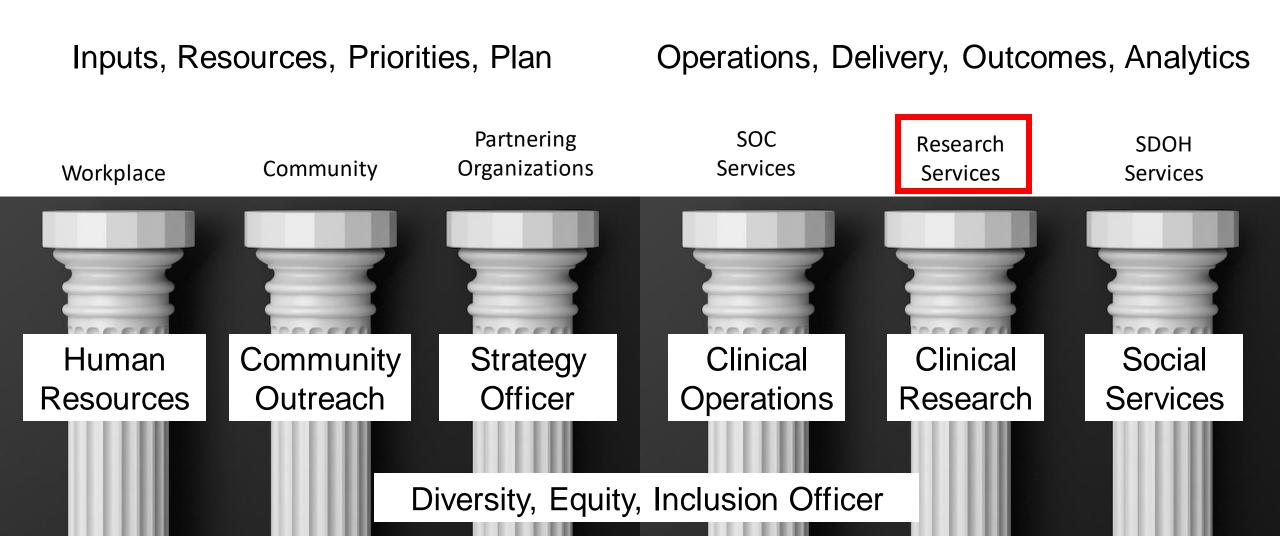




Alignment with Advocacy and Policy



Strategic 'Logic Model' Framework





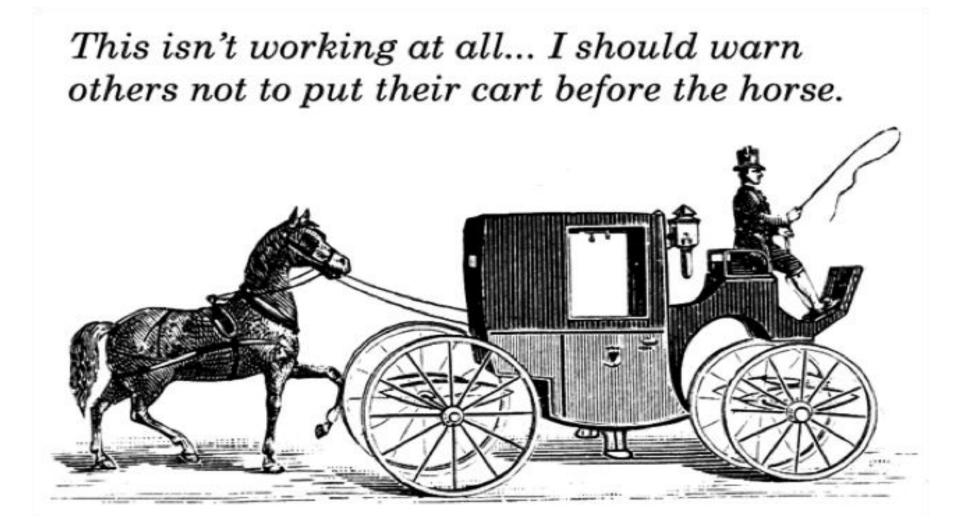
64 y/o Latina female (she/her/hers)

Relapsed/Refractory HPV+ Anal SCC (4th line) PMH: ECOG1, oral controlled T2DM

SH: Nashville Indigent Program ESL, low health literacy, children help Food Insecure – Food Pharmacy Beneficiary

03/2020: Obtained external expert advice on possible 4th line therapies
04/2020: Collaborated on possible Phase 1 HPV+ cancer trial
06/2020: Progressed and arranged for OSH Research to contact patient
08/2020: Patient not yet linked with OSH Research
09/2020: Patient fails screening due to elevated bilirubin
OSH not able to provide off-study medical care
10/2020: Bilirubin unrelated to malignancy, had stone and stricture
11/2020: Sent back to OSH for ERCP and stenting
12/2020: Progressed, PS declining, transitioned to hospice

LET'S FIND OUR DISPARITIES !!!



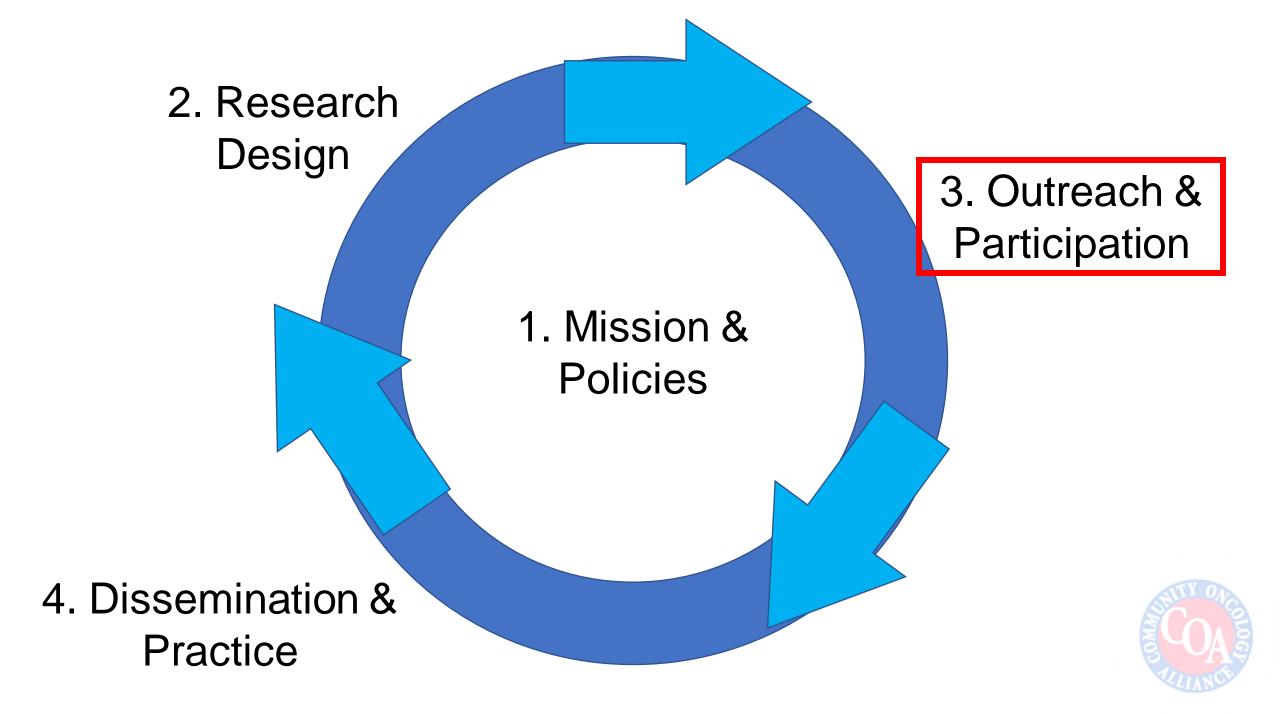
We need you to participate in our research/initiative so we can provide you with better care. PLEASE!

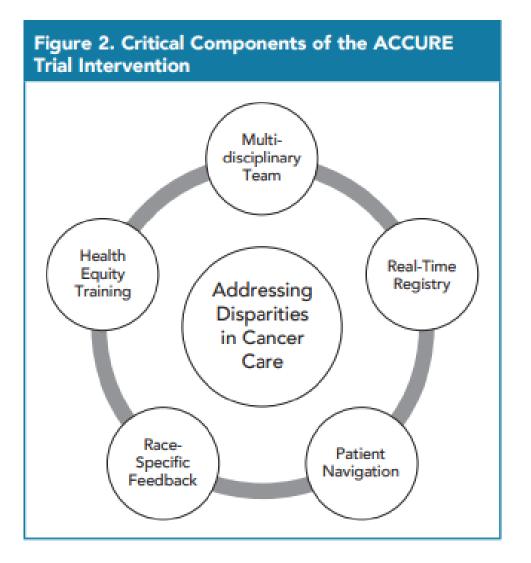
Thanks for participating. We learned so much from you.

Have a nice day.

Why are 'these people' so hesitant and resistant to seek care and enroll in trials?

> I KNOW! LET'S STUDY IT!





EXAMPLE FRAMEWORK:

The Lynx Group

Reducing Racial Disparities in Cancer Care Using the ACCURE Trial as a Model Learning Guide

Solution is not one size fits all

	Institution #1	Institution #2	Institution #3
Infrastructure	+++	-	+++
Funding	+++	+	++
Patient Demographics	-	+++	++
Equity Research Focus	+	+++	-

Institutional Needs Assessment





INSTITUTION A

Needs infrastructure support for high quality clinical care and research

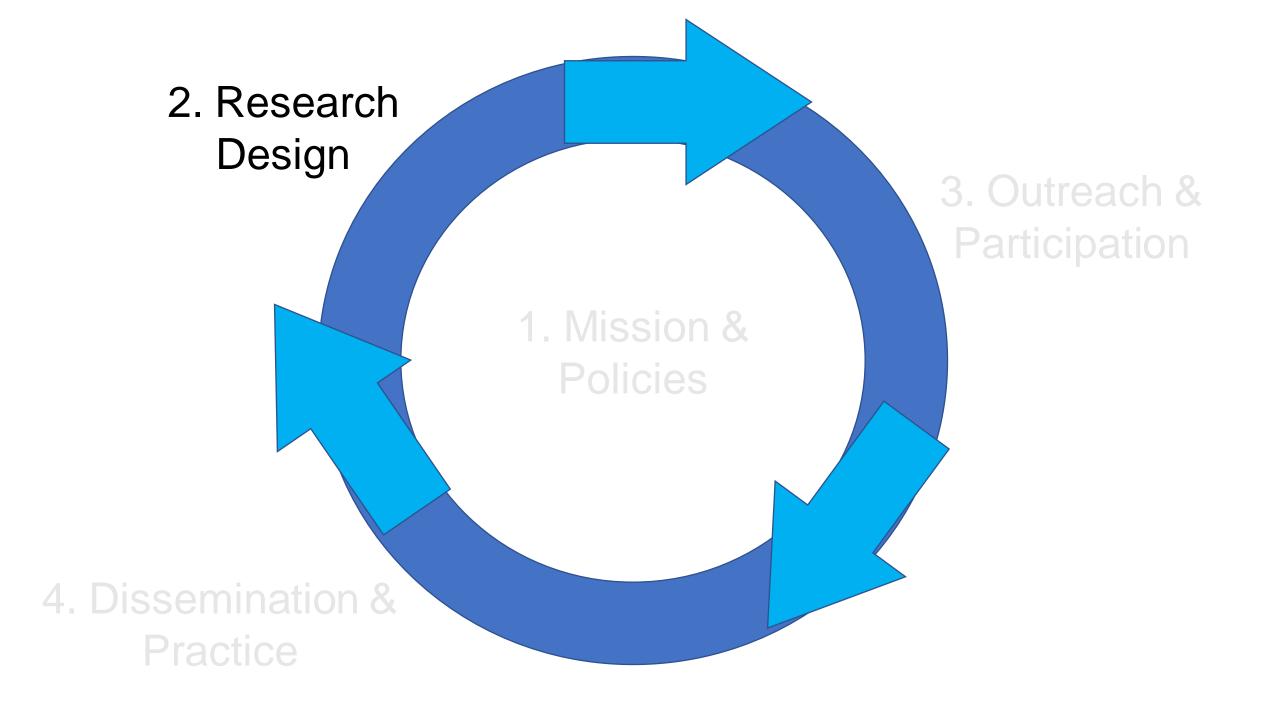
Has diverse staff and patients with interest in equity research

Has skilled researchers, grant funding, resources

Needs to improve access to vulnerable populations



INSTITUTION B



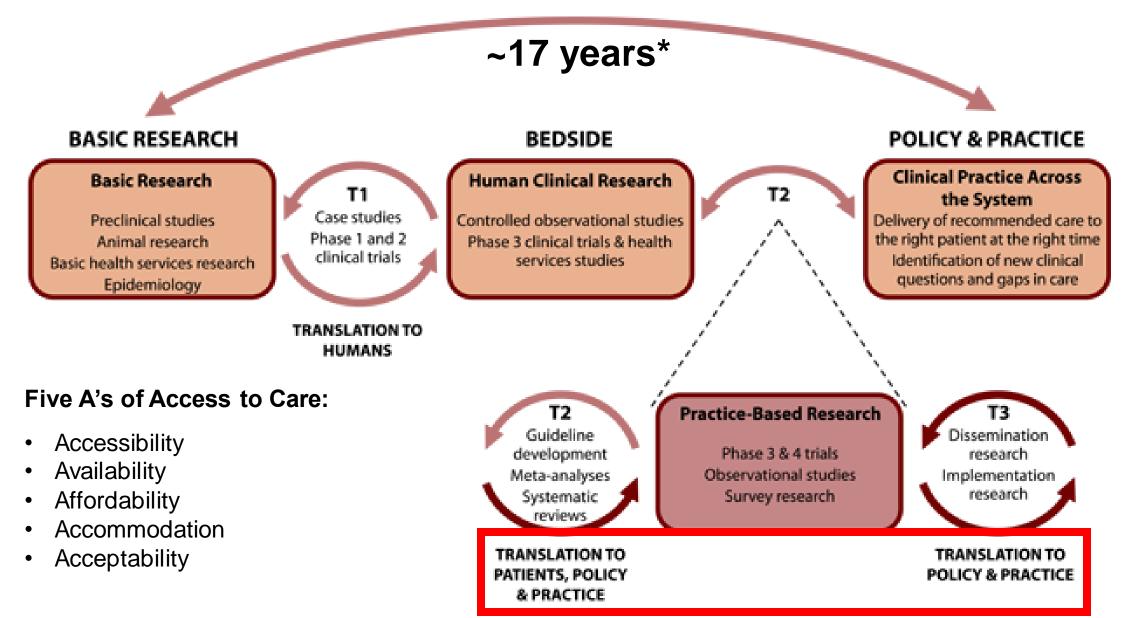
Ethical Hypothesis Considerations

Standard Medical Research

- Status quo is the current best
- Design Requires High Threshold to Change
- Focus Forward (Applied Knowledge): biochem, cellular, animal, human

Health Equity Research

- Status quo is inequity
- Design Must Be Change Oriented
- Focus Backward (Root Causes)



*Morris, Wooding, and Grant. J R Soc. Med. 2011

Westfall et al. Practice-based research - "blue Highways" on NIH roadmap. JAMA. 2007; 297(4): 403-406 (adaptation).

NSW Health and Medical Research Strategic Review 2012. NSW Ministry of Health. Page 4 (adaptation).





Research Portfolio Assessment

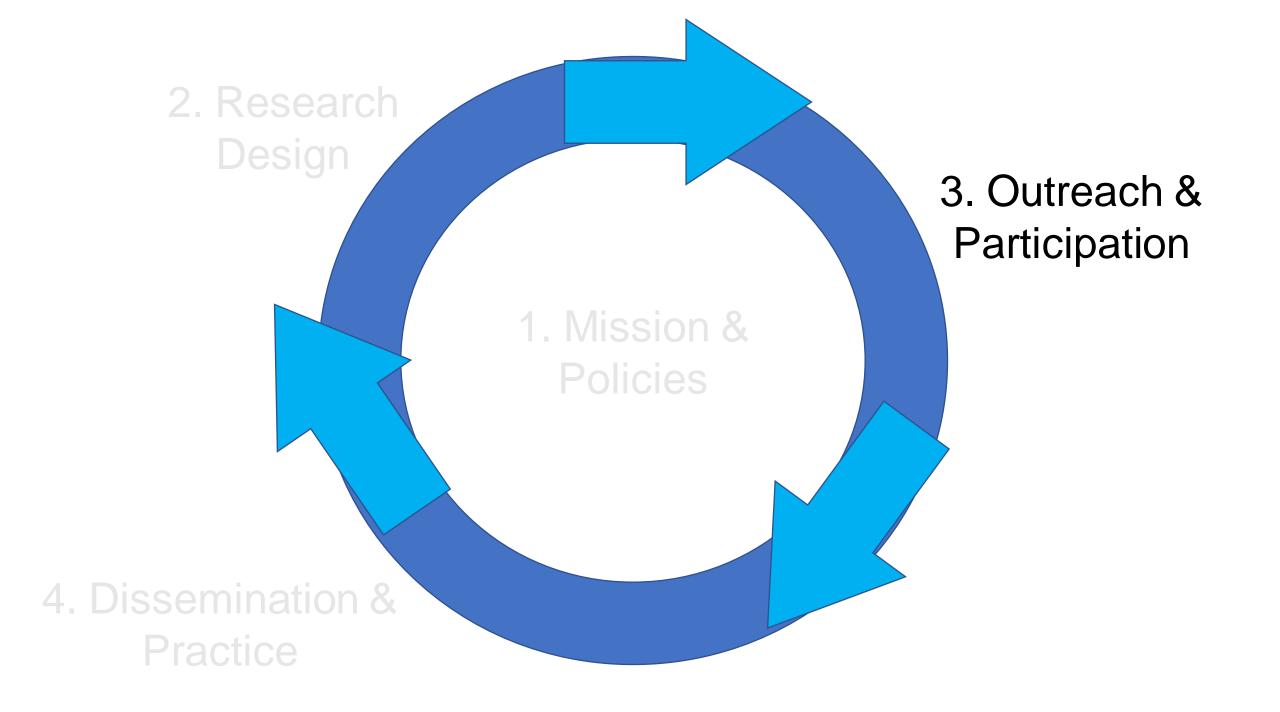
1) Categorize Current Trials

• Population, Prevention, Cancer Treatment, Supportive

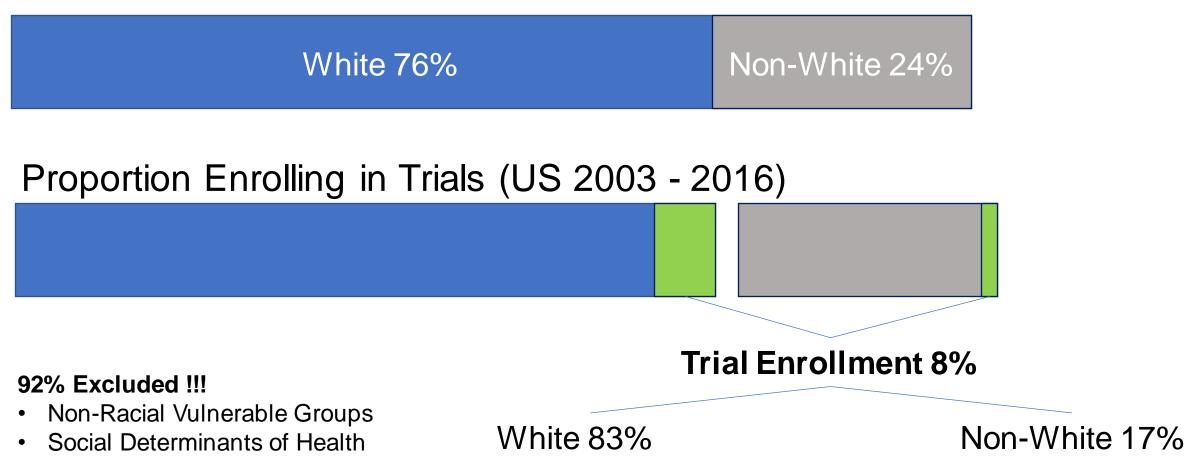
2) What percent have an equity focus or endpoint(s)?

3) Is enrollment equitable (Adjusted For Catchment Area Population)?

4) Are our research activities helping or hindering Minority-Serving Institutions?



Relative Cancer Prevalence (US 2013)



Duma et al. JCOOP. 2017

Racial Representation in Oncology Trials

Enrollment Characteristic	1990-2000 2001-2010	1990-2000	2001-2010
	Prevention	Treatment	
Articles Reporting Race/Ethnicity	53% 78%	35%	51%
Number of participants included when race/ethnicity information was reported	91,741 91,663	45,815	104,337
White	84,860 (92.5) 74,695 (81.5)	40,803 (89.0)	86,484 (82.9)
African American	5046 (5.5) 10,624 (11.6)	4811 (10.5)	6403 (6.1)
Hispanic	1560 (1.7) 3294 (3.6)	183 (0.4)	2333 (2.2)
Asian	275 (0.3) 65 (0.1)	18 (0.04)	3398 (3.3)
American Indian	14 (0.01) 1 (0.0)	NR	79 (0.1)
Other	NR 2984 (3.3)	NR	5640 (5.4)
No mention of African Americans	NR 29%	NR	22%

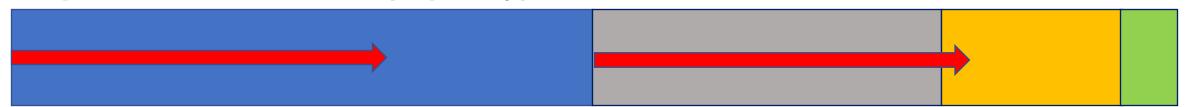
Kwiatkowski et al. Cancer, 2013

CATCHMENT AREA DEMOGRAPHICS

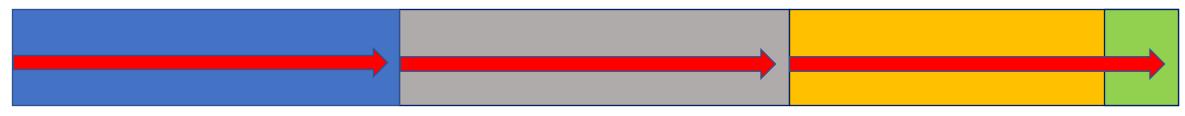
N = Required to Power Hypothesis

Current Enrollment

Proportional Enrollment (Equality)



Scientifically Meaningful Enrollment (Equity)



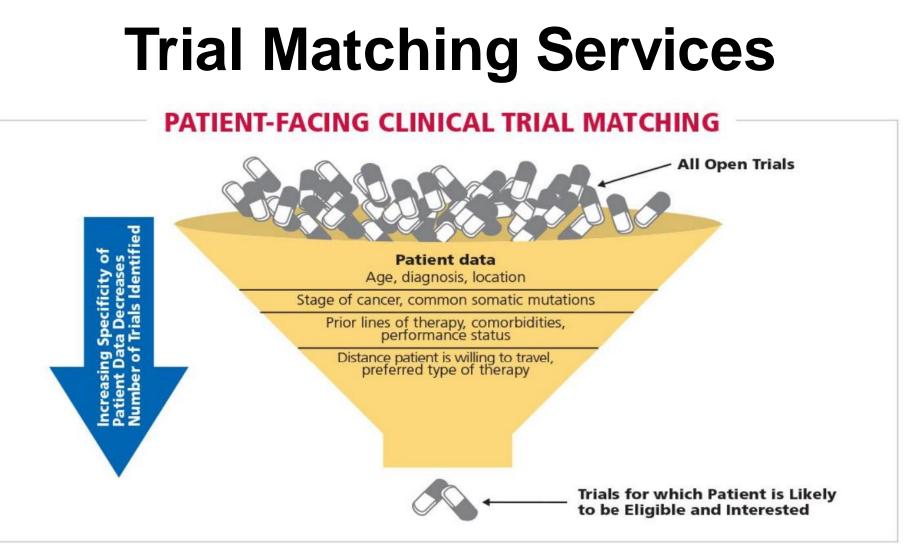
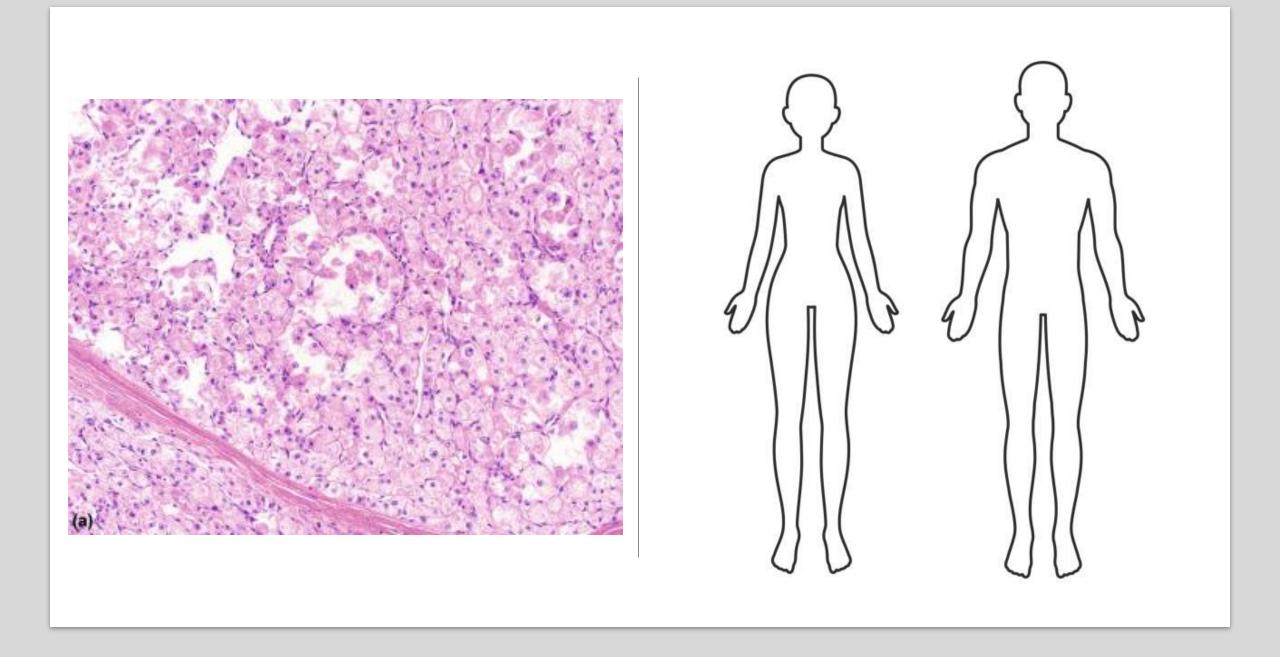
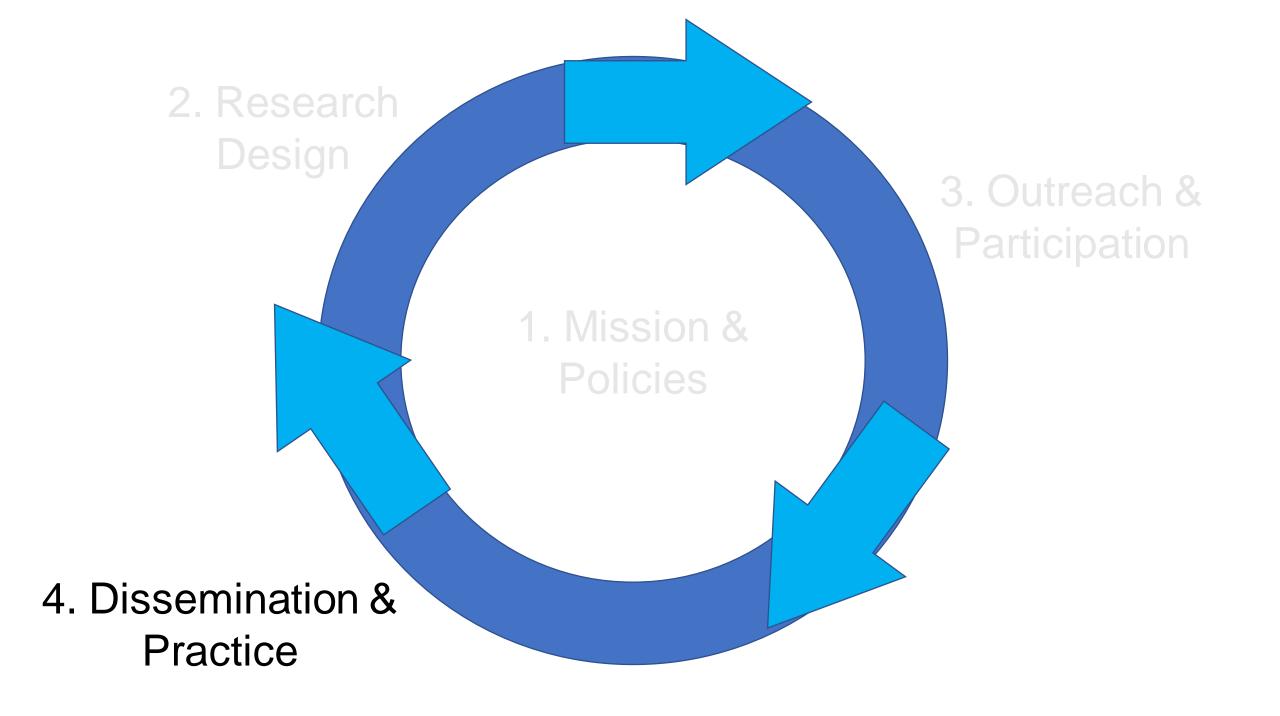
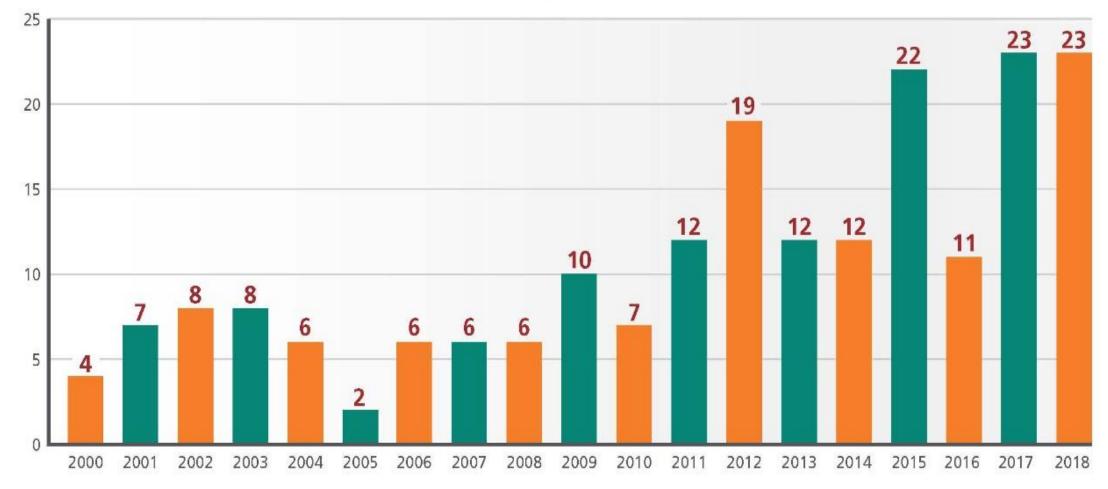


Figure 1: Consideration of additional patient data further refines the clinical trials considered for a patient and makes a match more accurate. Data may include clinical characteristics like genetic mutations, but may also include patient preference data such as location of the trial or type of therapy.





ONCOLOGY DRUG APPROVALS BY YEAR



Source: CenterWatch. FDA Approved Drugs for oncology



55 y/o white male (he/him/his)

New hepatocellular carcinoma PMH HCV treated 2018, Child-Pugh A

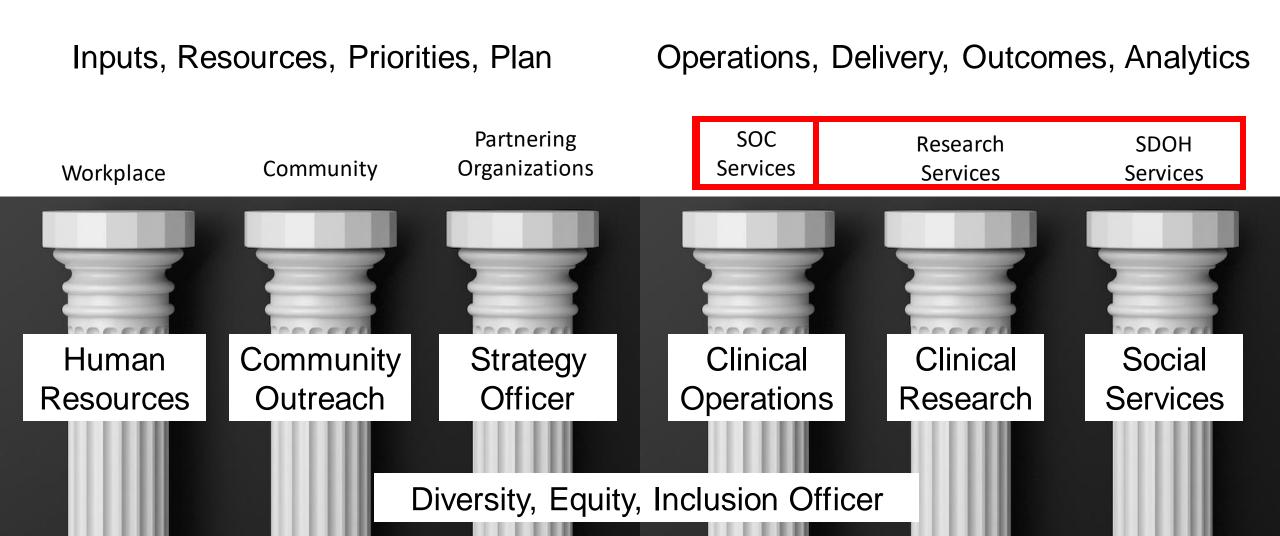
SH: Lost job and insurance during COVID

08/2020: ER for RUQ pain – CT Mass, AFP+, Biopsy+, steroids, D/C w/referral
09/2020: Establish Care, Enroll in Nashville Indigent (NI) Program
10/2020: Additional workup of LLQ masses – splenic remnants not cancer
11/2020: Internal Tumor Board – unresectable due to asplenia and mild portal HTN
12/2020: External Tumor Board – resectable at their high-risk program
01/2021: TACE while getting NI approval
02/2021: TACE while patient enrolls in TennCare
03/2021: Original Institution resects HCC

1. Without equitable *clinical care*, how can we conduct equitable *research*?

2. Research cannot be a substitute for standard of care

Strategic 'Logic Model' Framework



Oral Targeted Therapy

1. Qualifying Disease Identified (Screening)

2. NCCN or other Pathway (Confirmation)

3. Patient Consented (Provider Contact)

4. Orders Placed (Standardized Process)

5. Orders Executed (Data Tracked)

Hide VIA_LYOS354: Acalabrutinib (2:26	4:1
Acalabrutinib (Calquence) PO		100 mgX2
CBC		
CMP		
LDH		
CT Chest	Approved/KA	
CT Abdomen Pelvis	Approved/KA	
MEDSYNC		
MD Return with Scan Results		
Medical Assistant		
Distress Screening		
Adherence Assessment		Compliant/JR
Chart Prep		
Drug Access and Reimburseme		Pending
AdhereTech Enrollment		
SOC Drug Therapy consent an		
Park Pharmacy		
Drug Access and Reimburseme		

Food Insecurity

- 1. Screening Tool
- 2. Screening Performed
- 3. Patient Identified
- 4. Informed Discussion
- 5. Order or Action Taken
- 6. Tracking of Navigation or Completion



Says Provider to Financial Counselor or Navigator

- Standardized & Validated Screening (Hunger Vital Sign, MST)
- Standardize Workflows (Consistency in Denominators and Numerators)
- Build Team Based Order Set
 - Financial Counselor, Navigator, Dietician, Speech Therapy
 - Additional Co-occurring screening tools
 - Builds in Community Resources and Partners
 - Includes Closed Loop Follow Up Contact

Connect Internals with External Community Partner Needs

ITEM # 🖂	NAME		PACKAGING	STORA(~
6019CC	Sloppy Joe	Heat & Eat Meal	5/4 lb Bags	Frozen
6022CC	TACO MEAT	Heat & Eat Meal	5-4 lb Bags	Frozen
6022CCCH	Chicken Taco Meat	Heat & Eat Meal	5-4 lb Bags	Frozen
6046CC	SPAGHETTI W/MEAT SAUCE	Heat & Eat Meal	5/4lb Bags (31% meat)	Frozen
6012CC	CHICKEN ALA KING/POT PIE FILLING	Heat & Eat Meal	5/4 lb Bags (25% meat)	Frozen
6016CC	Chili w/Beans	Heat & Eat Meal	5/4 lb Bags (30% meat)	Frozen
6092CC	Chicken and Dumplings	Heat & Eat Meal	5/4lb Bags	Frozen
6001CC	Boil-in-Bag Macaroni & Cheese	Heat & Eat Meal	5/4 lb Bags	Frozen
6032CC	Boil-in-Bag Broccoli with Cheese Sauce	Heat & Eat Meal	5/4 lb Bags	Frozen



- Malnutrition/WeightLoss
- Dysphagia
- Cancer Survivors
- Cultural/Religious Preferences



https://www.secondharvestmidtn.org/get-help/

Objectives

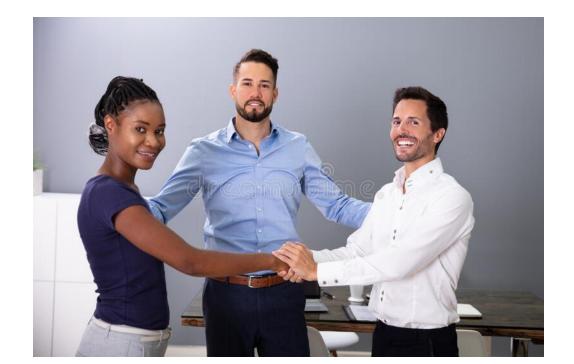
- <u>Why</u> does Equity matter? What is Equity Anyway?
- MOST IMPORTANT POINT OF TALK
- Strategic Overview: A Domain Approach
- Take Home Points



Take Aways

- Personalized Medicine = Cancer + HUMAN (Passion)
- Equity Is MORE than a value
- Disparity is Passive, Equity requires Action
- Know Your People, Learn to Listen
- Sustained, Strategic, and Structural Commitment
- Workplace: Think beyond quotas and benchmarks
- Community POV MUST be at the Table
- Research is NOT substitute for SOC
- Research Design must Advance the Science for Communities
- Treat SDOH Workflows with Same Respect and Diligence as SOC

WE DID IT !



SINCERE THANKS TO YOU ALL ③

References (Pathology Photos)¹

Lung:

Rosen, Y. Squamous cell bronchogenic carcinoma (gross pathology). Case study, Radiopaedia.org. (accessed on 02 May 2022) <u>https://doi.org/10.53347/rID-9258</u>

Kidney:

Gaillard, F. Renal cell carcinoma (gross pathology). Case study, Radiopaedia.org. (accessed on 02 May 2022) <u>https://doi.org/10.53347/rID-9888</u>

Pancreas:

Hruban, R., Fukushima, N. Pancreatic adenocarcinoma: update on the surgical pathology of carcinomas of ductal origin and PanINs. *Mod Pathol* **20**, S61–S70 (2007). <u>https://doi.org/10.1038/modpathol.3800685</u>

Breast:

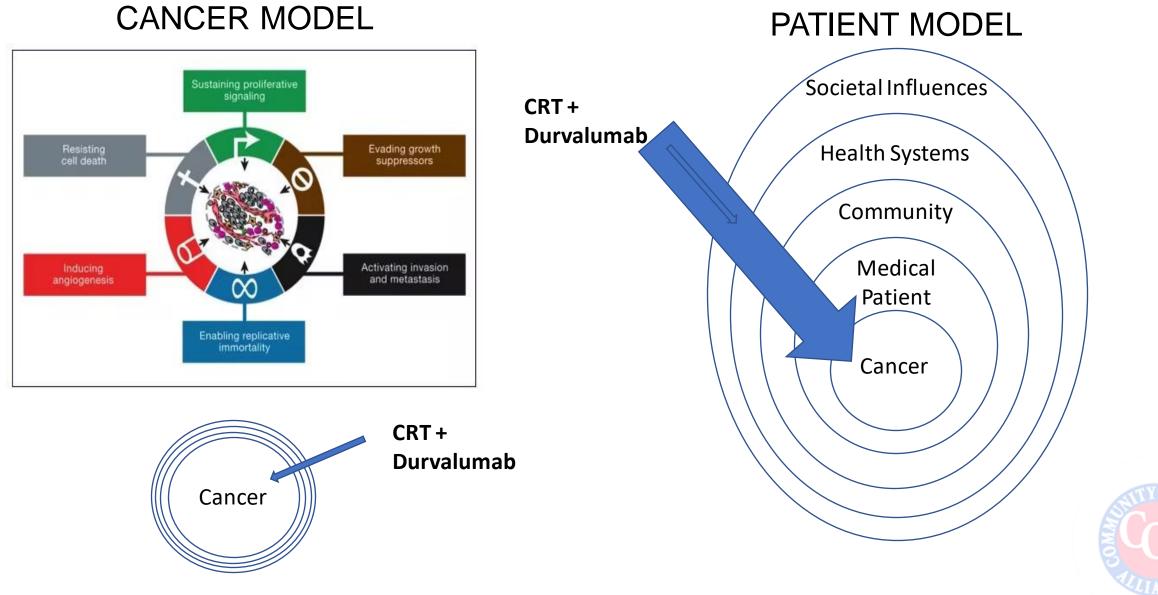
File is from Wikimedia Commons and may be used by other projects.

Spleen:

Uthman, E. Splenic lymphoma (gross pathology). Case study, Radiopaedia.org. (accessed on 02 May 2022) https://doi.org/10.53347/rID-77581



Disease vs. Patient



Hanahan and Weinberg. Cell (Review). 2011











December 2022 FDA to require diversity plan for clinical trials

July 2023 Enhancing Oncology Model (EOM) includes required Health Equity Domain

- LIS Risk Adjustment
- SDOH
- HRSN
- Equity CQI Plan

<u>**1986</u>** First Report on Cancer Disparities by SES/Race</u>

2002 Cancer Action Network

<u>2002</u>

Surveillance and Health Equity Sciences Dept.

<u>2022</u>

RFA: Cancer Health Equity Research Center (\$16mil) Health Disparities Committee
2017
Strategic Action Plan
2018

Health Equity Committee

<u>2020</u>

2013

Equity Focused Plenary Renewed Action Plan

- Structural Barriers
- Awareness
- Access to Quality
- Equitable Research

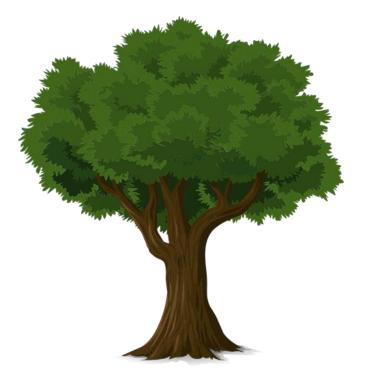
<u>2021</u>

Presidents Theme "Equity: Every Patient. Every Day. Everywhere."

<u>May 2022</u>

COA Health Equity Committee Individual Experiment

Clinical Equipoise



Totality of Clinical Research

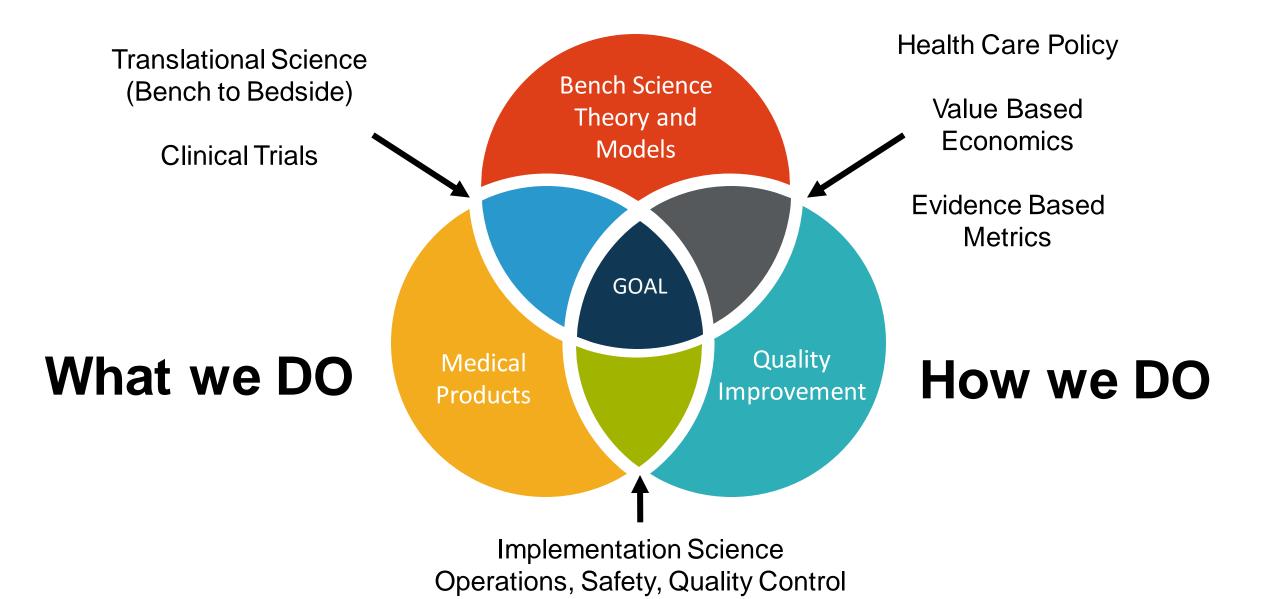
Steady and Clear Progress





Wang et al. JNCI Cancer Spectrum. 2022

What we KNOW



INPUTS

- Population
- Environment
- Personnel
- Training
- Equipment

- Partners
- Portfolio
- Process
- Policies
- Measures