

BRINGING ONCOLOGY SPECIALTY CARE TO THE COMMUNITY USING NURSING NAVIGATION

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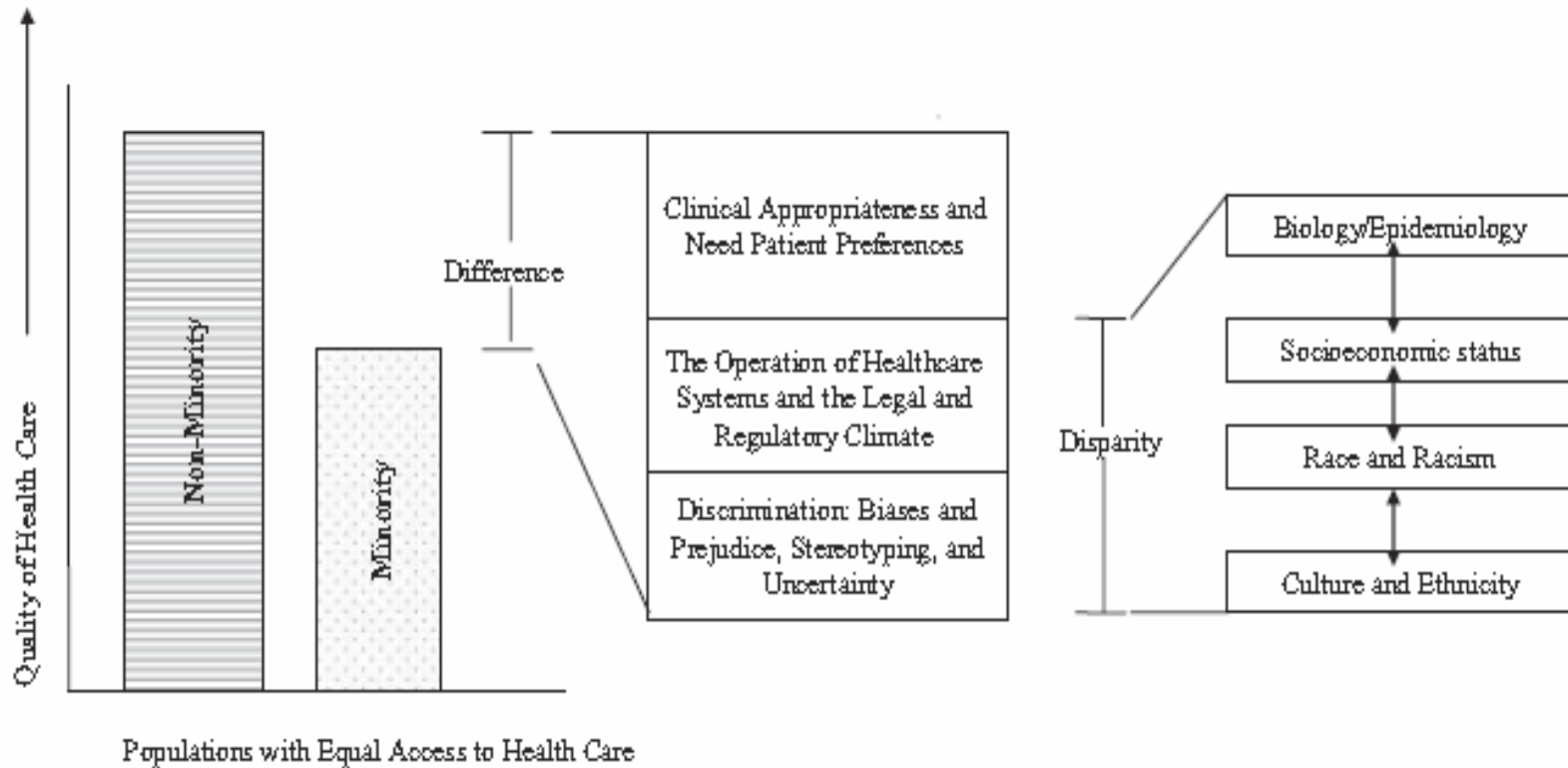
OVERVIEW

- Disparities in cancer care
 - Issues in Precision Medicine
 - SES/Race
- Intervention
- Future considerations and thoughts

RACIAL DISPARITIES IN HEALTH CARE

- Racial Disparities in health are well documented
- Racial and ethnic minorities receive a lower quality of health care even when income and access are accounted for
- Disparities exist through all sectors of the health care system

DISPARITIES FRAMEWORK



Trends in 5-year Relative Survival Rates* (%) by Race, US, 1975-2010

	All Races			White			Black		
	1975-77	1987-89	2004-10	1975-77	1987-89	2004-10	1975-77	1987-89	2004-10
All sites	49	55	68 [†]	50	57	69 [†]	39	43	62 [†]
Brain & other nervous system	22	29	35 [†]	22	28	33 [†]	25	32	42 [†]
Breast (female)	75	84	91 [†]	76	85	92 [†]	62	71	80 [†]
Colon	51	60	65 [†]	51	61	67 [†]	45	52	56 [†]
Esophagus	5	9	20 [†]	6	11	21 [†]	4	7	13 [†]
Hodgkin lymphoma	72	79	88 [†]	72	80	88 [†]	70	72	85 [†]
Kidney & renal pelvis	50	57	74 [†]	50	57	74 [†]	49	55	72 [†]
Larynx	66	66	63 [†]	67	67	64	58	56	52
Leukemia	34	43	60 [†]	35	44	61 [†]	33	35	54 [†]
Liver & intrahepatic bile duct	3	5	18 [†]	3	6	17 [†]	2	3	13 [†]
Lung & bronchus	12	13	18 [†]	12	13	18 [†]	11	11	15 [†]
Melanoma of the skin	82	88	93 [†]	82	88	93 [†]	57 [‡]	79 [‡]	75
Myeloma	25	27	47 [†]	24	27	47 [†]	30	30	47 [†]
Non-Hodgkin lymphoma	47	51	71 [†]	47	51	73 [†]	48	46	63 [†]
Oral cavity & pharynx	53	54	66 [†]	54	56	67 [†]	36	34	45 [†]
Ovary	36	38	45 [†]	35	38	44 [†]	42	34	36
Pancreas	3	4	7 [†]	3	3	7 [†]	2	6	7 [†]
Prostate	68	83	>99 [†]	69	84	>99 [†]	61	71	98 [†]
Rectum	48	58	68 [†]	48	59	68 [†]	44	52	63 [†]
Stomach	15	20	29 [†]	14	18	28 [†]	16	19	28 [†]
Testis	83	95	97 [†]	83	96	97 [†]	73 ^{‡#}	88 [‡]	90
Thyroid	92	94	98 [†]	92	94	98 [†]	90	92	96 [†]
Urinary bladder	72	79	79 [†]	73	80	80 [†]	50	63	64 [†]
Uterine cervix	69	70	70	70	73	71	65	57	62
Uterine corpus	87	82	83 [†]	88	84	85 [†]	60	57	65 [†]

*Rates are adjusted for normal life expectancy and are based on cases diagnosed in the SEER 9 areas from 1975 to 1977, 1987 to 1989, and 2004 to 2010, all followed through 2011. †The difference in rates between 1975-1977 and 2004-2010 is statistically significant (p<0.05). ‡The standard error is between 5 and 10 percentage points. #Survival rate is for cases diagnosed from 1978 to 1980.

Source: Howlader N, Noone AM, Krapcho M, et al. (eds). SEER Cancer Statistics Review, 1975-2011, National Cancer Institute, Bethesda, MD, http://seer.cancer.gov/csr/1975_2011/, based on November 2013 SEER data submission.

Race and Economic Opportunity in the United States: An Intergenerational Perspective*

Raj Chetty, Stanford University and NBER
Nathaniel Hendren, Harvard University and NBER
Maggie R. Jones, U.S. Census Bureau
Sonya R. Porter, U.S. Census Bureau

March 2018

Abstract

We study the sources of racial and ethnic disparities in income using de-identified longitudinal data covering nearly the entire U.S. population from 1989-2015. We document three sets of results. First, the intergenerational persistence of disparities varies substantially across racial groups. For example, Hispanic Americans are moving up significantly in the income distribution across generations because they have relatively high rates of intergenerational income mobility. In contrast, black Americans have substantially lower rates of upward mobility and higher rates of downward mobility than whites, leading to large income disparities that persist across generations. Conditional on parent income, the black-white income gap is driven entirely by large differences in wages and employment rates between black and white men; there are no such differences between black and white women. Second, differences in family characteristics such as parental marital status, education, and wealth explain very little of the black-white income gap conditional on parent income. Differences in ability also do not explain the patterns of intergenerational mobility we document. Third, the black-white gap persists even among boys who grow up in the same neighborhood. Controlling for parental income, black boys have lower incomes in adulthood than white boys in 99% of Census tracts. Both black and white boys have better outcomes in low-poverty areas, but black-white gaps are *larger* on average for boys who grow up in such neighborhoods. The few areas in which black-white gaps are relatively small tend to be low-poverty neighborhoods with low levels of racial bias among whites and high rates of father presence among blacks. Black males who move to such neighborhoods earlier in childhood earn more and are less likely to be incarcerated. However, fewer than 5% of black children grow up in such environments. These findings suggest that reducing the black-white income gap will require efforts whose impacts cross neighborhood and class lines and increase upward mobility specifically for black men.



RACE: WHY IS IT HARD TO DISCUSS?

“When I See Racial Disparities, I See Racism.” Discussing Race, Gender and Mobility - The New York Times - Google Chrome

Secure | <https://www.nytimes.com/interactive/2018/03/27/upshot/reader-questions-about-race-gender-and-mobility.html>

READER CENTER | “When I See Racial Disparities, I See Racism.” Discussing Race, Gender and Mobility

The Lone Journalist on the Scene When King Was Shot and the Newsroom He Rallied

We Want to Hear From You

TECH WE'RE USING
Twitter, Facebook, Slack: Using Every Tool to Hear What Readers Think

We Want to Hear From Public School Teachers

“Glee, Satisfaction and Weeping”: How America Reacted When Martin Luther King Died

BULLETIN BOARD
What Topics Should the ‘Tech We’re Using’ Column Tackle Next?

course of their lives.
— Emily Badger, Reporter, The Upshot

Jump to topic:

- Causes of Inequality
 - Comparing Women and Men
 - Addressing Inequality and Racism
 - How the Research Was Done
 - How the Article Was Made

- COLLAPSE ALL

× Why is racism the only explanation for this phenomenon? Perhaps something happens to black boys while they are growing up that makes them less capable of succeeding in the U.S. economy. For instance, maybe cultural forces cause black boys — but not black girls — to focus on activities that leave them with poorer time management skills than those that boys of other races are developing. So, why do the authors take the easy way out and blame amorphous racism instead of exploring more subtle explanations that do not make the situation seem hopeless?

Michael Sundel, Falls Church, Va.

Actually, the easy way out is to say there must be something wrong with these black boys. It is the easy way out that Americans have historically taken in trying to explain racial disparities in our society since the founding of the United States. Either there is something wrong with our policies, or there is something wrong with black boys (or black people). Either the United States is riddled with racist policies or inferior black boys. We have all sorts of evidence of racist policies. Where is the evidence that black boys as a group have “poorer time management skills” than white boys as a group? Personal observations of individual behavior is not evidence of group behavior. Racist ideas of black inferiority is the easy way out.

— Ibram X. Kendi, History and international relations professor, American University, and director, The Antiracist Research and Policy Center

It’s hard to conclude from this study that the problem here is “culture” for two reasons: Girls don’t appear to face the same racial disparities in income as boys, and boys face these disparities whether they’re raised poor or rich, by two parents or one. If culture were the primary driver here, you’d have to argue that boys and girls raised in the same family are exposed to fundamentally different cultures. You’d have to argue that rich black boys

Extensive Data Sh...html

Show all

SOCIOECONOMIC STATUS AND CANCER



CANCER OUTCOMES AND SES

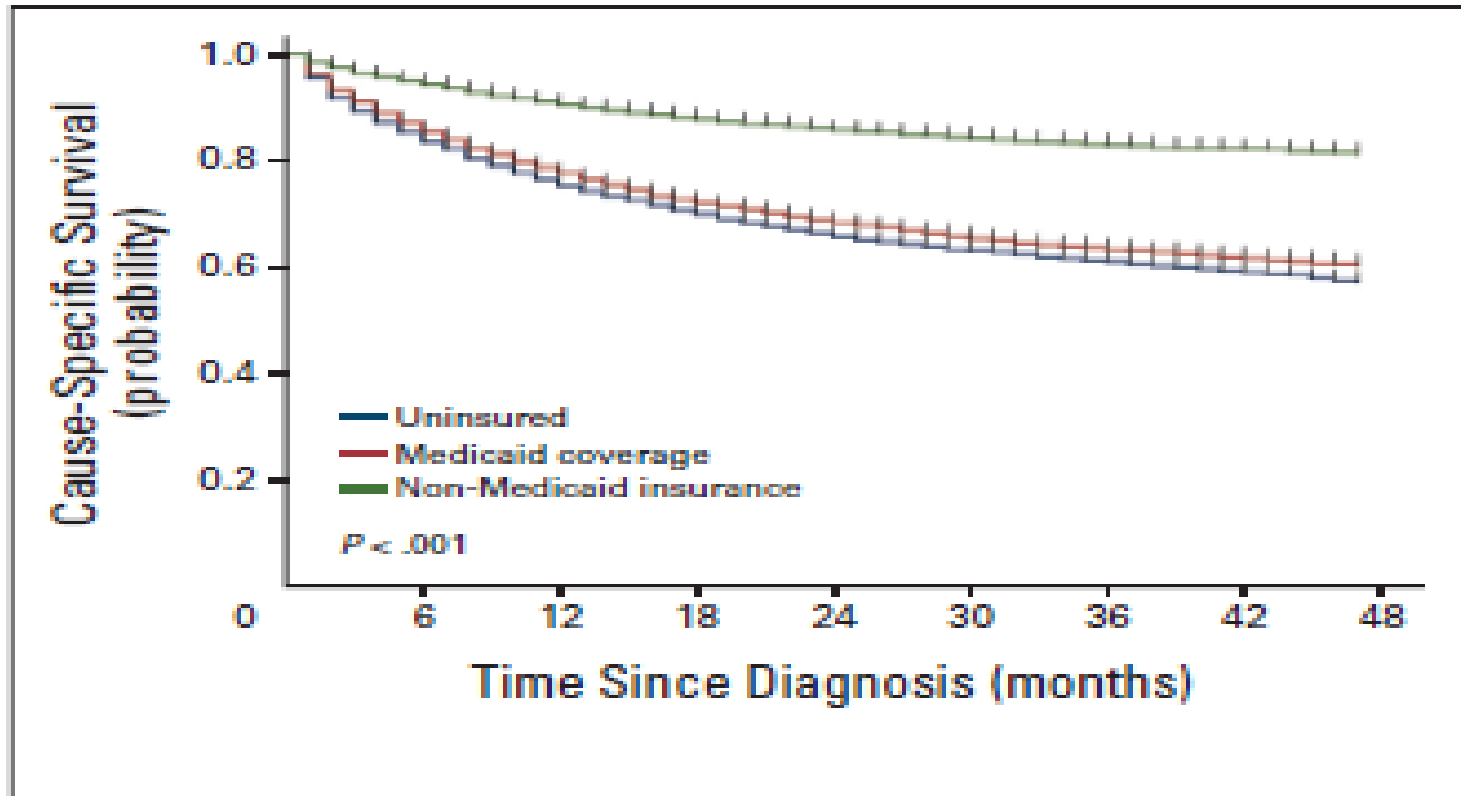


Fig 3. Unadjusted Kaplan-Meier curve illustrating cause-specific survival by insurance status for patients with one of 10 most deadly cancers. $P < .001$.

CANCER OUTCOMES AND SES

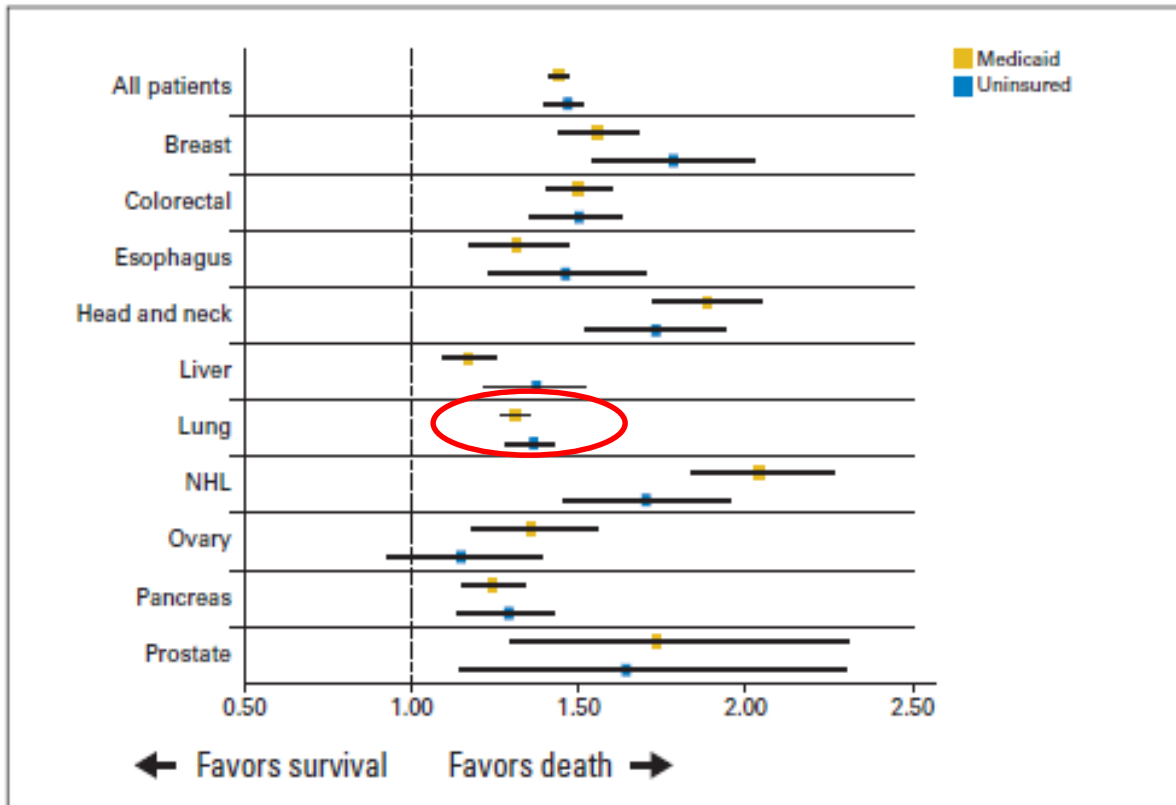
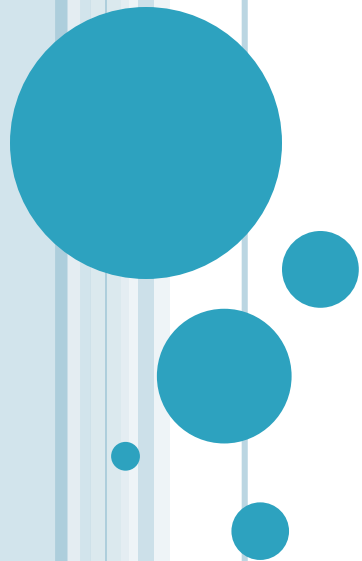


Fig 4. Forest plot depicting hazard ratios and 95% CIs for cancer-specific death for patients with Medicaid coverage and those with no insurance as compared with patients with non-Medicaid insurance. All sites controlled for age, race, sex, marital status, stage (local, regional, or distant), residence (urban v rural), percent of county below federal poverty level, and undergoing cancer-directed surgery and/or receiving radiation therapy. Breast and prostate sites also controlled for estrogen receptor and prostate-specific antigen and Gleason score, respectively. NHL, non-Hodgkin lymphoma.

**BRINGING SPECIALIST CARE TO THE
PATIENTS: ONCOLOGISTS SEEING
PATIENTS AT A COMMUNITY HEALTH
CENTER**



QUESTIONS FOR CANCER CENTERS

1. Where do patients of color, low SES, and immigrants get their cancer care?
 - Not getting treated?
 - Community cancer centers
 - Lack of data
2. How do we give high quality care to vulnerable populations while respecting fiscal realities?
 - Other medical specialties do it (renal dialysis)
 - Varied mix of payers (private insurers, Medicare, state safety net programs)

CANCER CARE EQUITY PROGRAM

- Focused effort to maximize research/and clinical efforts to combat racial disparities in cancer care
- Supported at all levels of DFCI leadership in collaboration with External Affairs
- Funded by philanthropic gift from the Kraft Family Foundation (CVS x 2, individual donors)

CANCER CARE EQUITY PROGRAM

Rationale:

Inequities in care are present at every level, and data corresponded with local needs assessment.

Goal:

To improve local outcomes for the underserved across the spectrum of cancer-related disease by facilitating clinical access to the spectrum of preventive medicine, treatment, and clinical trials.

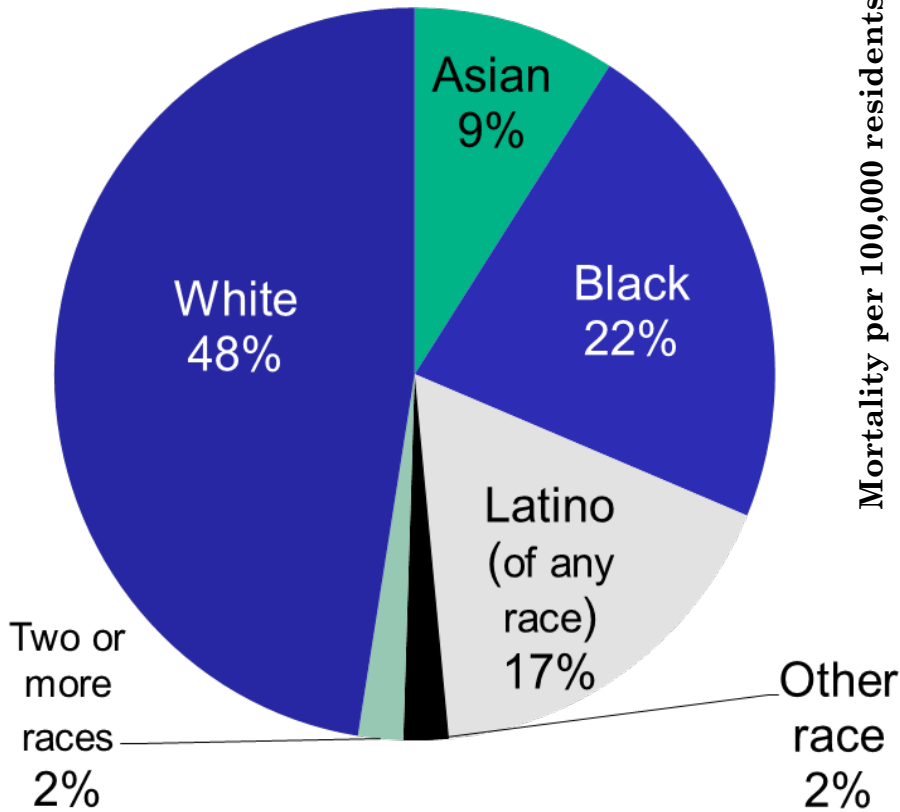
COMMUNITY HEALTH CENTER PARTNER

- Federally Qualified Health Center: Grant under PHS, goal to improve access to care for underserved patient populations. 25,000 individual visits. Majority under the poverty line.
- Long-standing, existing relationships with DFCI and Brigham and Women's Hospital
- New building created opportunity for an outreach program, clinical facilities, onsite mammography and resource room

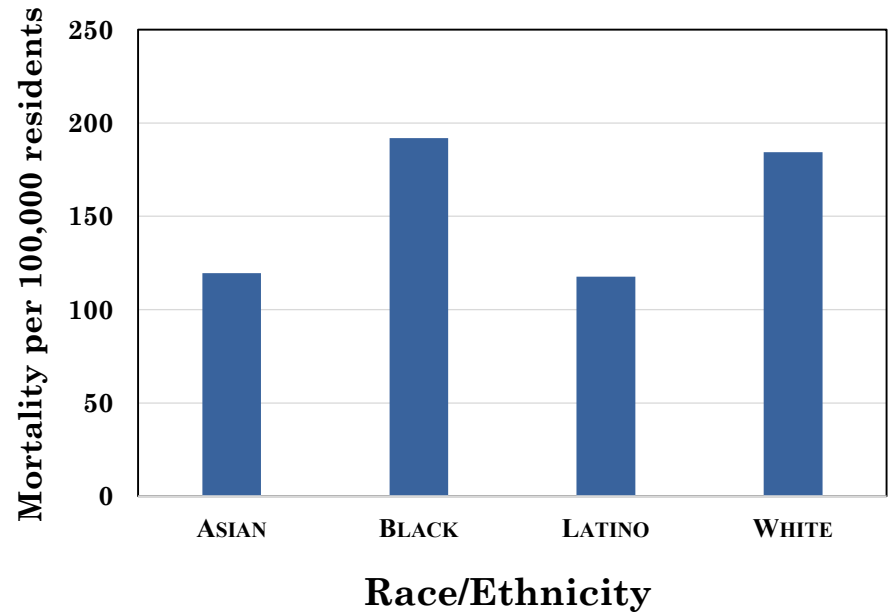


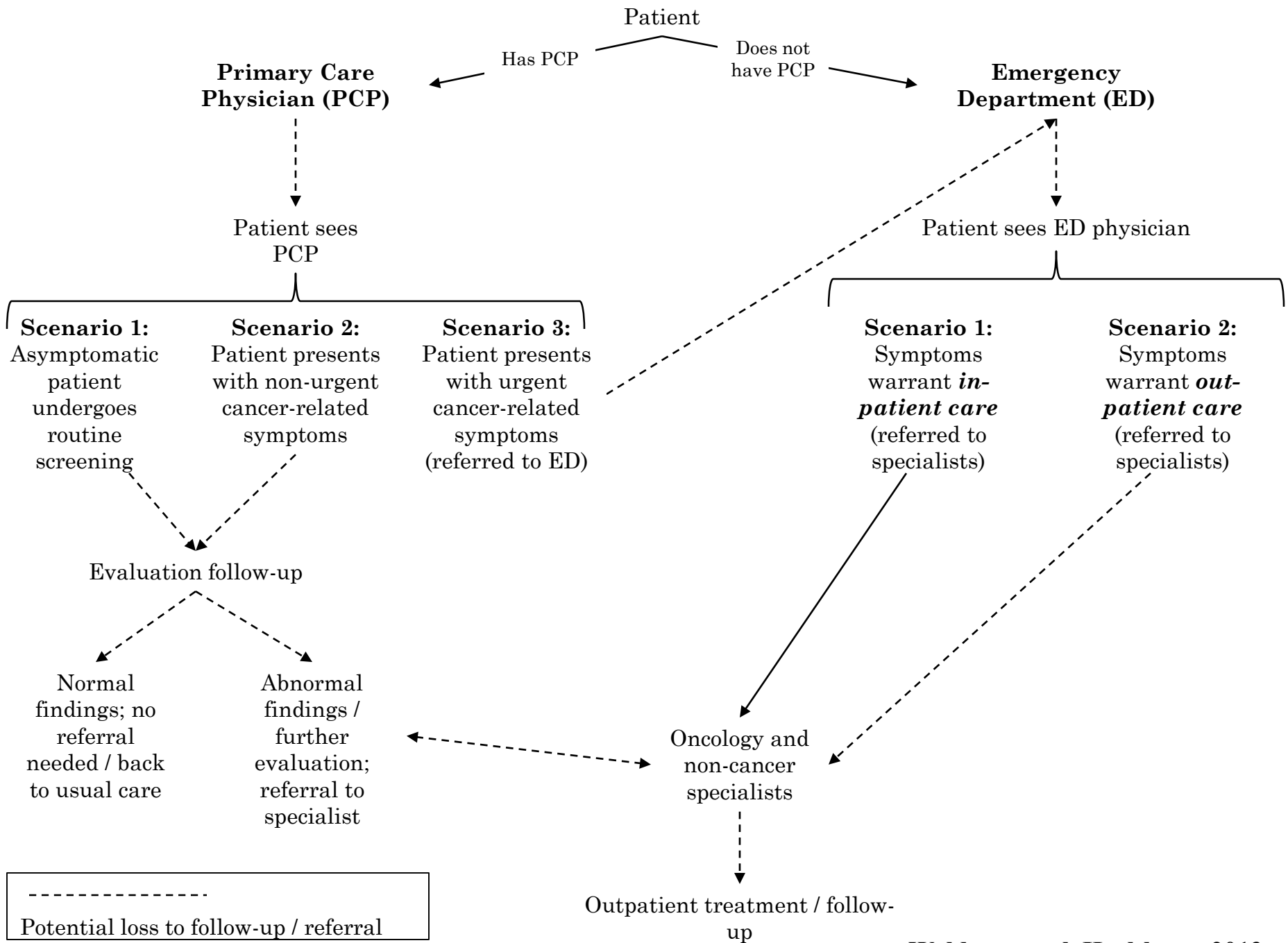
CANCER IN BOSTON

Population by Race/Ethnicity



Boston Cancer Mortality Rates





IMPLEMENTATION

Conceptualizing a clinical program:

- Oncology had limited physical presence in underserved communities
- Little interaction between oncology and primary care at the diagnostic stage of cancer
- Waiting for a “tissue diagnosis” before medical oncology involvement is problematic
- Over 1yr process of gauging interest, resulted in a partnership
- Enter the Fast Track process...

WHAT IS FAST TRACK?

A problem-solving methodology that enables teams to:

- Solve problems quickly
- Implement solutions within 90 days
- Improve sustainable outcomes

Requirements for a successful Fast Track:

- Clearly defined problem statement and goals
- The right stakeholders: those closest to the problem
- Enough information to develop solutions
- Skilled facilitation throughout process
- Immediate decision making by senior sponsors
- Solutions and implementation by stakeholders

Key to Success: Implementation of strategies and action plans by those who are closest to the issues.

SETTING THE FAST TRACK GOALS

Fast Track Goal Criteria:

- Measurable and tangible
- Short-term, 90-100 day target
- A significant improvement
- Achievable with defined resources and authority

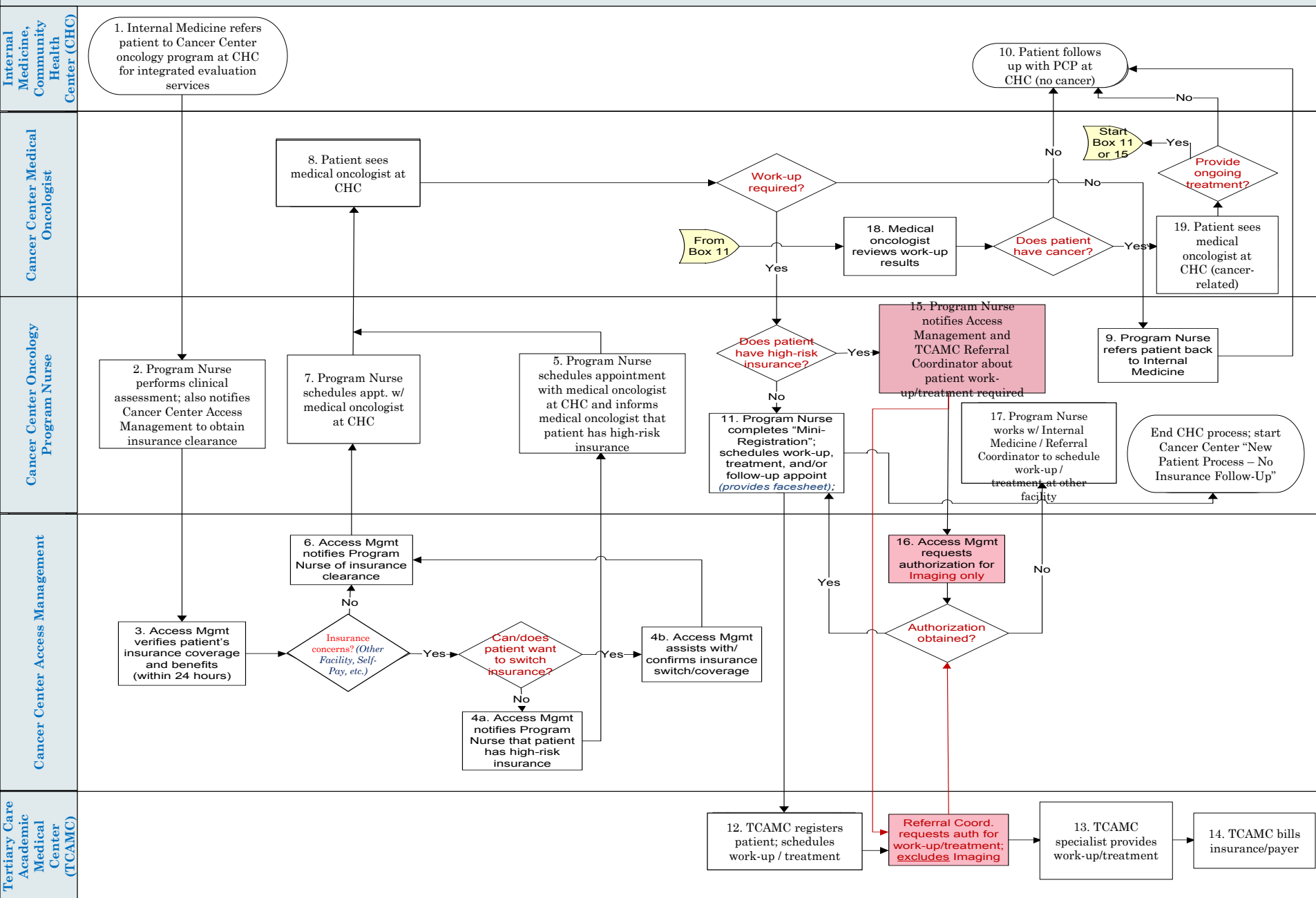
Best Goals Are:

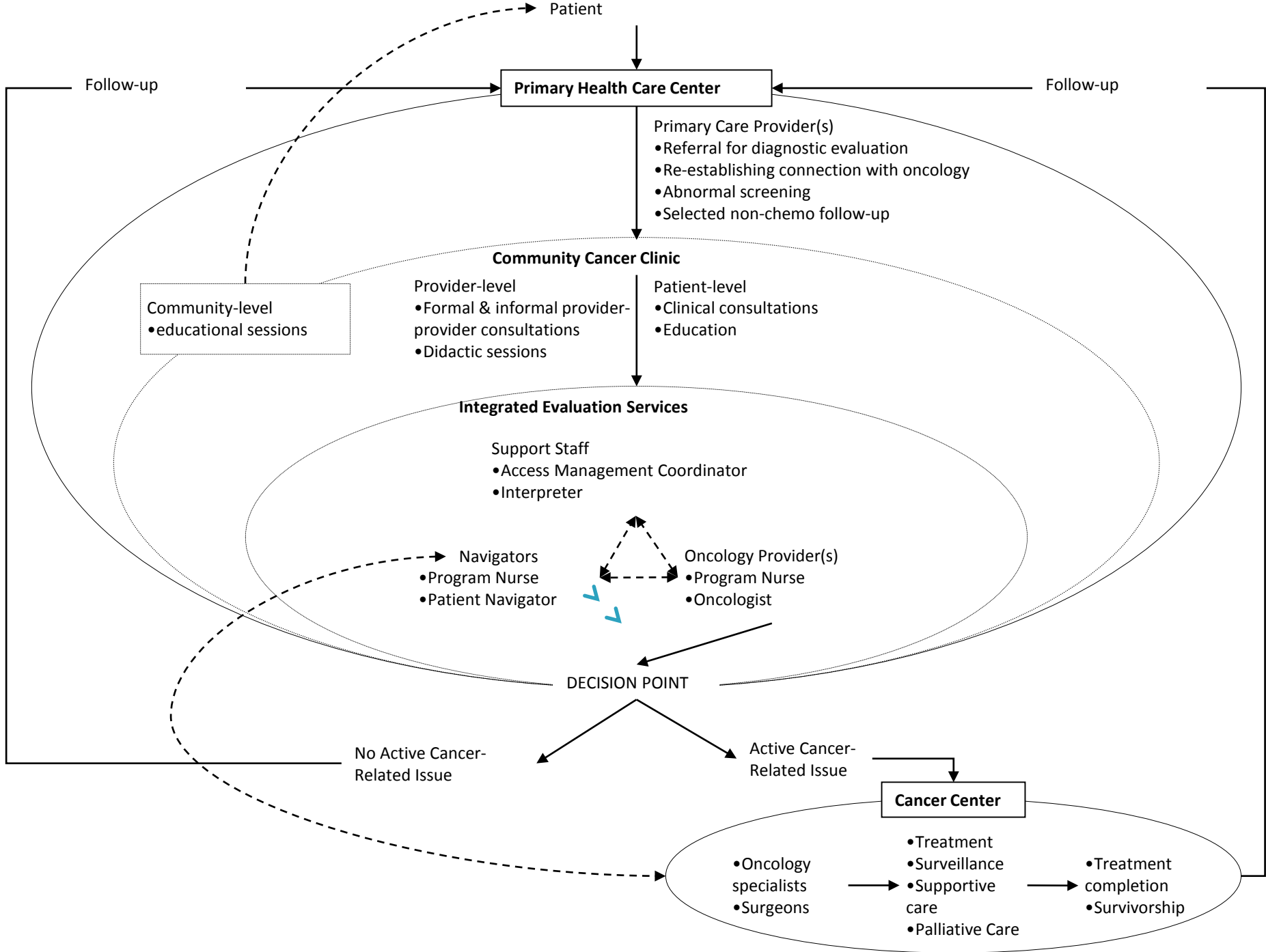
- Results-Oriented
- Quantitative
- Simple and clear
- Memorable
- Inspiring

Fast Track goals for the clinical outreach program



Patient Referral Process Flow





CLINICAL DATA COLLECTION

Clinic open for 6 yrs.

- Computerized New Patient intake form & Patient navigation database in Redcap
- Evaluation of data from the cohort
- Pre program data from the health center

EVALUATION OF THE INTERVENTION



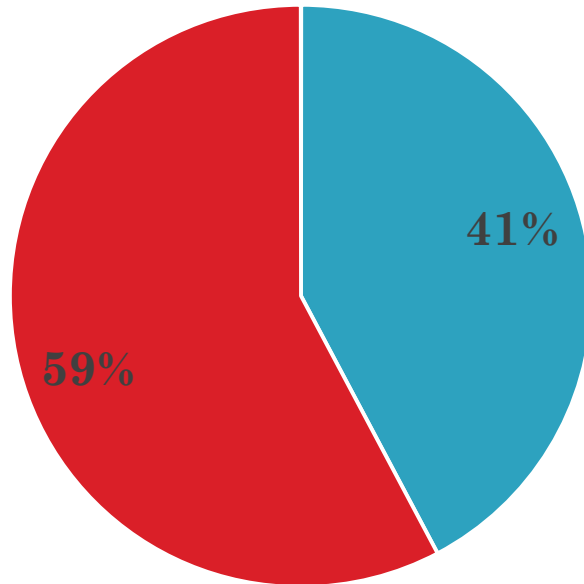
BASELINE DATA:

TOTAL NUMBER OF CANCER DIAGNOSES, 2005-11

Type of cancer	# DX	# Dx 2009-11	# Dx pre-2009	% Treated at BMC
Breast	35	11	24	57.14
GI (liver, colon, rectal)	21	13	8	66.67
GU (bladder, kidney, prostate)	42	14	28	42.86
Lung	6	5	1	66.67
Gyn (cervix, ovarian)	19	4	15	13.79
Heme (lymphoma, leukemia)	4	1	3	25.00
Other (skin, brain, thyroid)	9	1	8	33.33
Total	136	49	87	43.84

CLINIC VISIT DATA

Percentage



■ Heme/Onc Dx ■ Non Heme/Onc Dx

869 total patient visits

- 479 new patients
- 390 follow-ups

PATIENT DEMOGRAPHICS: OUTREACH

Age Category	N	Percentage
18 - 29	52	10.9
30 - 39	66	13.8
40 - 49	72	15.0
50 - 59	134	28.0
60 - 69	113	23.6
70 - 79	29	6.1
80+	13	2.7
Total	479	100.0

Gender	N	Percentage
Female	285	59.5
Male	194	40.5
Total	479	100.0

PATIENT DEMOGRAPHICS: OUTREACH

Primary Race	N	Percentage
American Indian or Alaskan Native	4	< 1
Asian	2	< 1
Black or African American	311	67.0
Native Hawaiian or other Pacific Islander	1	< 1
White	110	23.7
Other	19	4.1
Two or more	17	3.7
Missing	15	2.8
Total	479	100.0

Hispanic Ethnicity	N	Percentage
Yes	219	45.7
No	257	53.6
Missing	3	0.7
Total	479	100.0

PATIENT DEMOGRAPHICS: OUTREACH

Insurance	N	Percentage
Commercial Insurance	53	11.0
Commonwealth Health Care	18	3.8
HSN or Free Care	37	7.7
Medicaid	254	53.0
Medicare	112	23.3
Other	3	0.7
Missing	2	0.4
Total	479	100.0

PATIENT DEMOGRAPHICS: OUTREACH

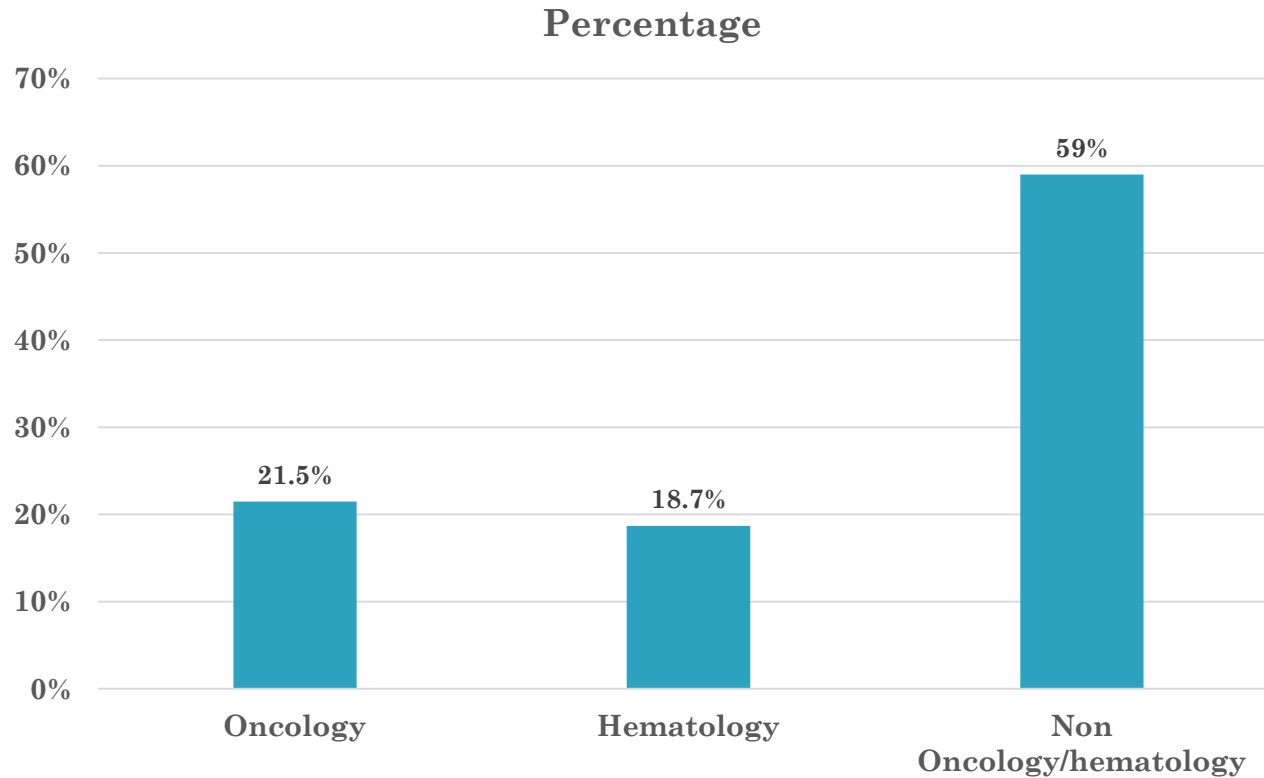
Education Status	N	Percentage
Some primary or elementary school	35	7.5
Some secondary or high school	79	16.8
Secondary or high school graduate or GED equivalent	125	26.7
Vocational/technical school graduate	27	5.8
Some University, but did not graduate	98	20.9
Bachelors Degree	63	13.4
Graduate/Professional Degree (e.g., MA, PhD)	32	6.8
Other	10	2.1
Missing	10	2.1
Total	479	100.0

Employment Status	N	Percentage
Employed 32 hrs/wk or more	161	34.0
Employed less than 32 hrs/wk	60	12.5
Full-time student	6	1.3
Unemployed, seeking work	77	16.0
Employed less than 32 hrs/wk & part-time student	3	0.6
Homemaker	28	5.8
Unable to work due to disability	74	15.4
Retired	65	13.7
Missing	5	1.0
Total	479	100.0

REASONS FOR REFERRAL

Reasons for Referral	N(%)
Hematological consult	89 (20.6)
Evaluate for cancer	128 (29.7)
Genetic counseling and testing	88 (20.4)
Lung cancer screening /smoking cessation counseling	70 (16.2)
Follow up care for cancer	47 (10.9)
Cancer treatment	9 (2.1)
Total	479

CANCER DIAGNOSIS



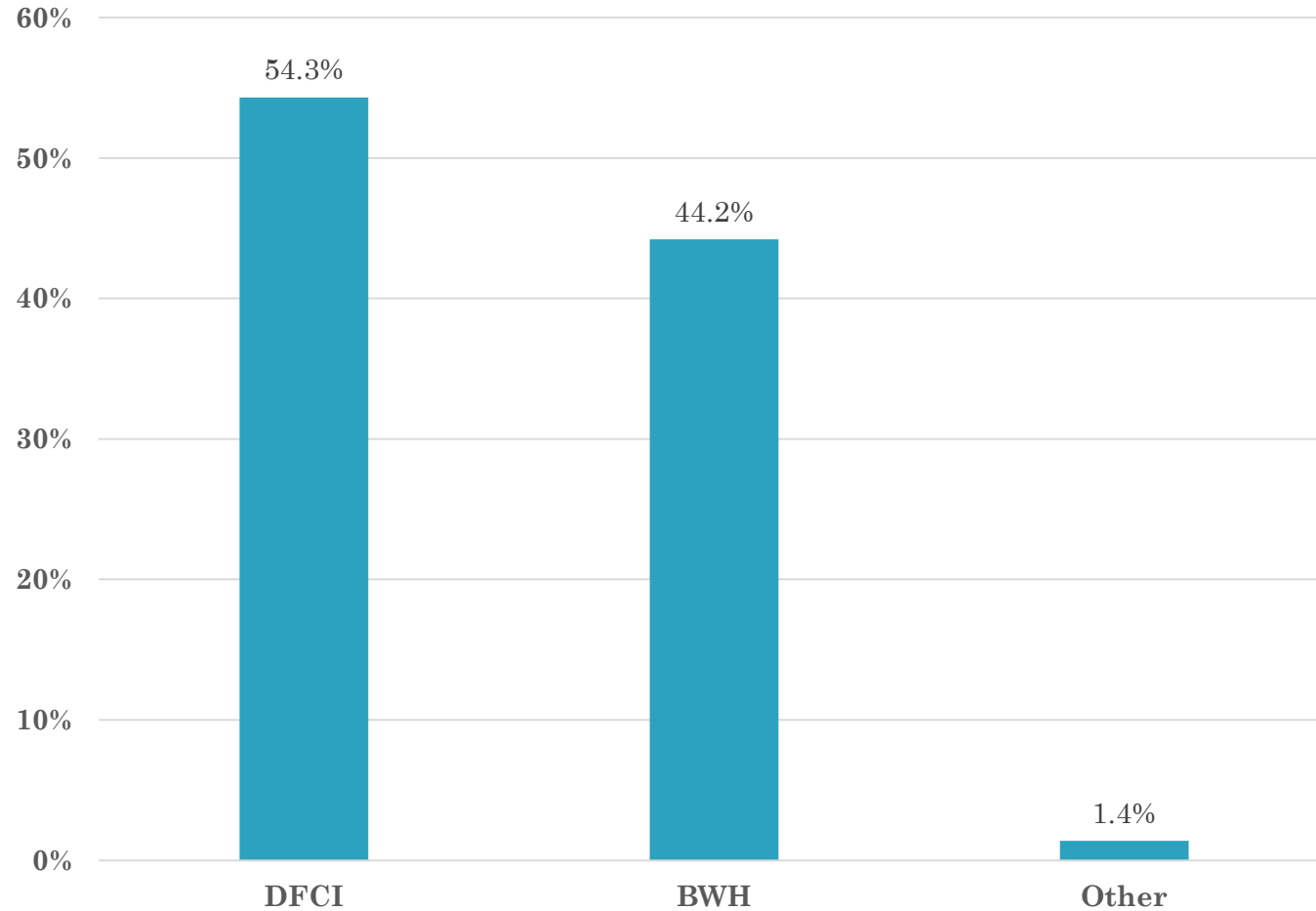
103 oncology visits

90 heme visits

283 Non Onc/heme visits

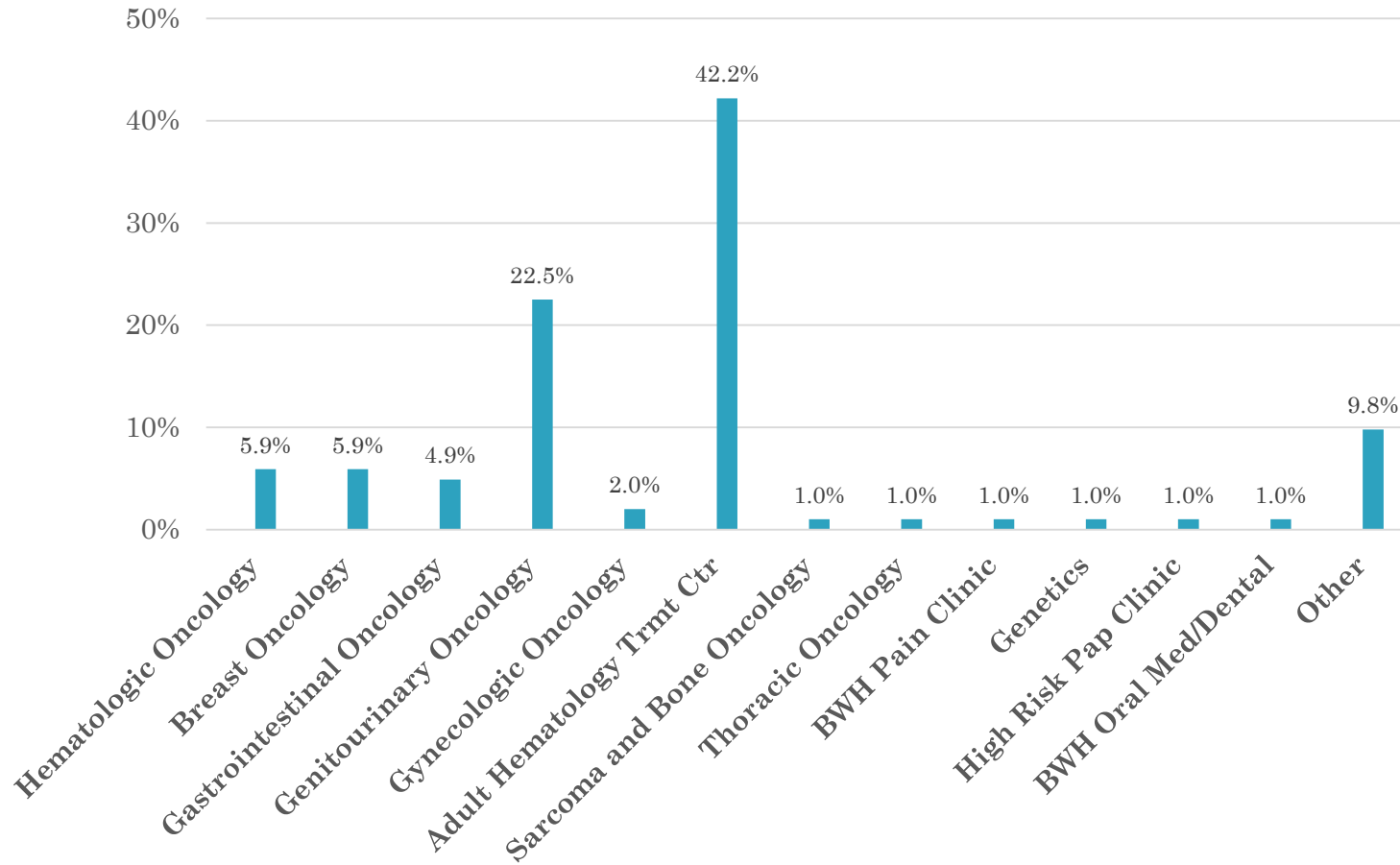
PATIENT REFERRALS

% of Total Patient Referrals

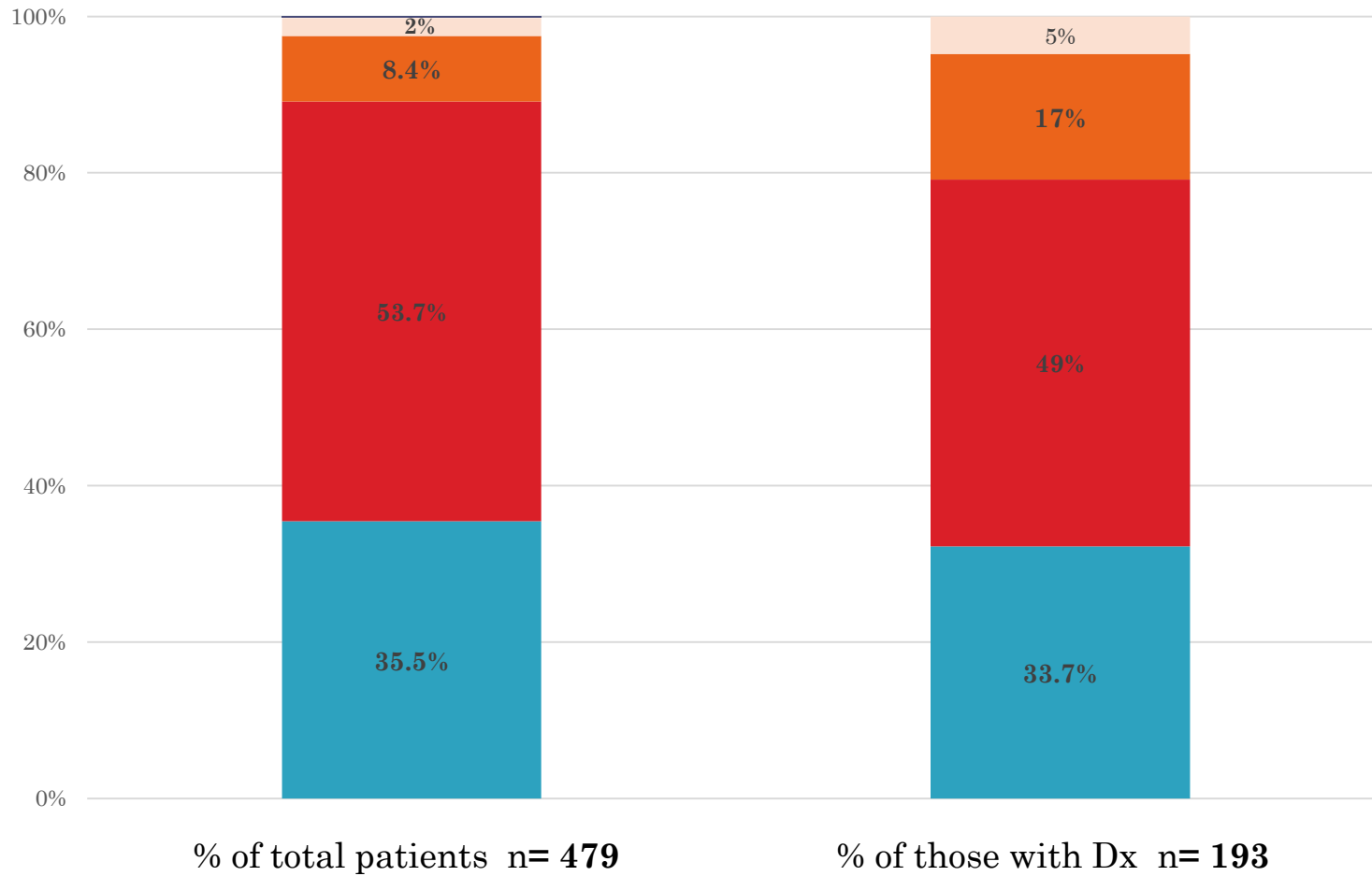


FIRST DISEASE CENTER REFERRED TO

Percentage



TYPE OF RESOLUTION



■ Referred to PCP ■ Surveillance Plan ■ Treatment Plan ■ Unresolved ■ Other

EVALUATION OF ONCOLOGY PATIENT NAVIGATION

Original Article

Metrics for Evaluating Patient Navigation During Cancer Diagnosis and Treatment

Crafting a Policy-Relevant Research Agenda for Patient Navigation in Cancer Care*

B. Ashleigh Guadagnolo, MD, MPH¹; Daniel Dohan, PhD²; and Peter Raich, MD³

BACKGROUND: Racial and ethnic minorities as well as other vulnerable populations experience disparate cancer-related health outcomes. Patient navigation is an emerging health care delivery innovation that offers promise in improving quality of cancer care delivery to these patients who experience unique health-access barriers. Metrics are needed to evaluate whether patient navigation can improve quality of care delivery, health outcomes, and overall value in health care during diagnosis and treatment of cancer. **METHODS:** Information regarding the current state of the science examining patient navigation interventions was gathered via search of the published scientific literature. A focus group of providers, patient navigators, and health-policy experts was convened as part of the Patient Navigation Leadership Summit sponsored by the American Cancer Society. Key metrics were identified for assessing the efficacy of patient navigation in cancer diagnosis and treatment. **RESULTS:** Patient navigation data exist for all stages of cancer care; however, the literature is more robust for its implementation during prevention, screening, and early diagnostic workup of cancer. Relatively fewer data are reported for outcomes and efficacy of patient navigation during cancer treatment. Metrics are proposed for a policy-relevant research agenda to evaluate the efficacy of patient navigation in cancer diagnosis and treatment. **CONCLUSIONS:** Patient navigation is understudied with respect to its use in cancer diagnosis and treatment. Core metrics are defined to evaluate its efficacy in improving outcomes and mitigating health-access barriers. *Cancer* 2011;117(15 suppl):3565-74. © 2011 American Cancer Society.

KEYWORDS: patient navigation, treatment adherence, quality of cancer care.

Core metrics during cancer screening and diagnosis

- Diagnostic resolution
- Timeliness of care
- Patient education
- Continuity of care

Core metrics during cancer treatment

- Goals of treatment
- Timeliness of care
- Treatment adherence
- Guideline adherence
- Clinical trial participation

OUTCOMES OF INTEREST

- Most important outcome is time to resolution in days.
- Given the low N only the univariate non parametric test median test can be performed at this time due to small sample size.
- *Days to resolution is defined as clinic date - date of resolution.*

All patients (475): Mean: 32, Median:16

SD: ± **53.2** days

Oncology/heme patients (193): Mean: 29,

Median:**13.0**, SD: ± **48.5** days (from WSHC median **32** days)

EARLY CONCLUSIONS AND ACCOMPLISHMENTS

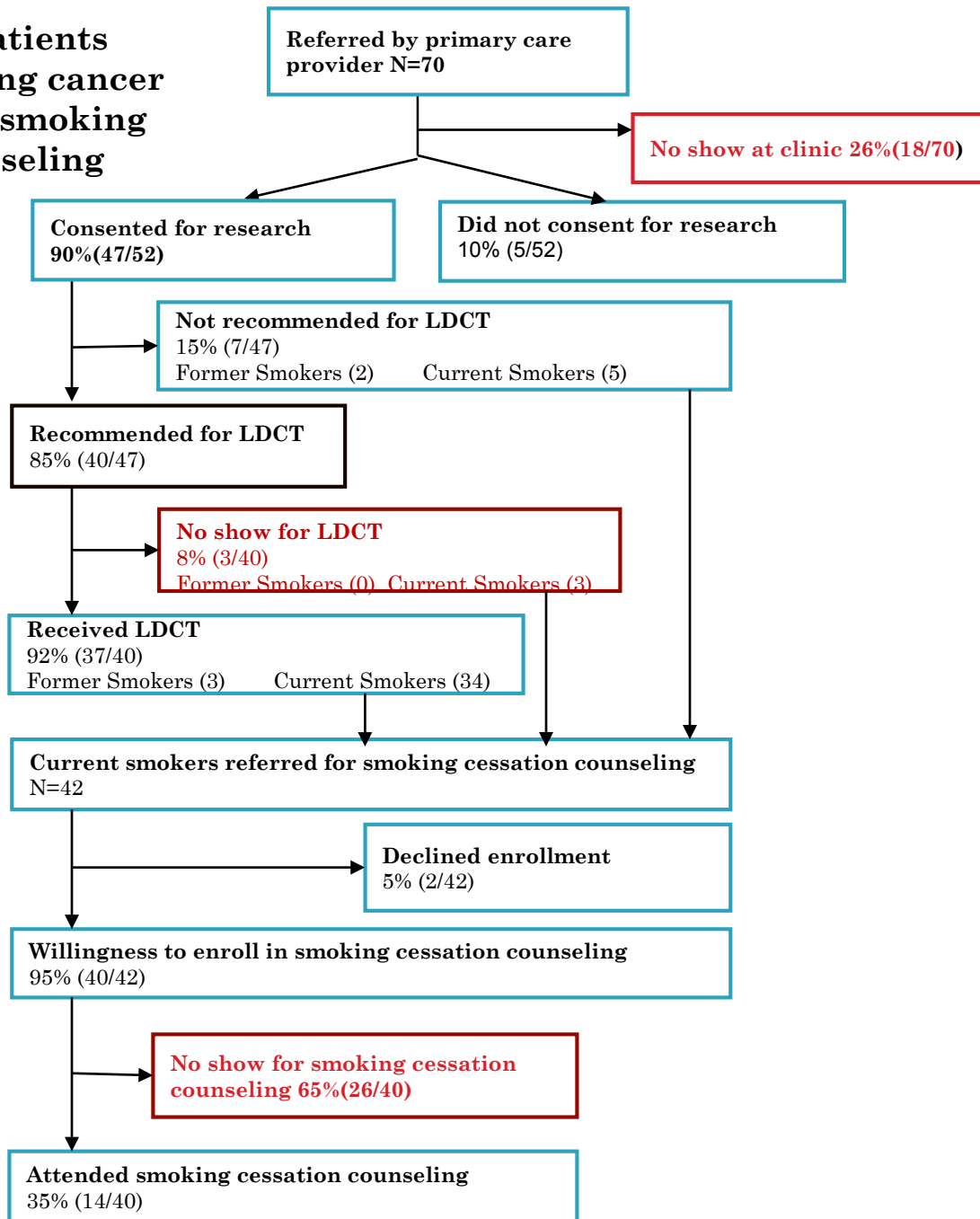
- Significant number of cancer patients in the primary care setting
- Patients and physicians recognize utility of the program. *Clinical trial enrollment-7.4%* of all patient with cancer Dx (14/193).
- **17%** of pts on active treatment
- Formation of a clinical patient cohort with IRB approval of 364 patients with **89%** (364/407) response
- Patient navigation database for tracking patient data

RESEARCH PROJECTS

1. Clinic Utilization and Smoking Cessation Practices among Ethnic Minority Patients Referred for Paired Lung Cancer Screening and Tobacco Treatment Services at a Community Cancer Program. (AACR Conference on the Science of Cancer Health Disparities 2016)

- 70 patients: 26% clinic no show rate. Despite expressing a willingness to participate, the no show rate of study participants for smoking cessation counseling (65%) was significantly higher than the no show rate for the LDCT screenings (8%).

Summary of patients referred for lung cancer screening and smoking cessation counseling

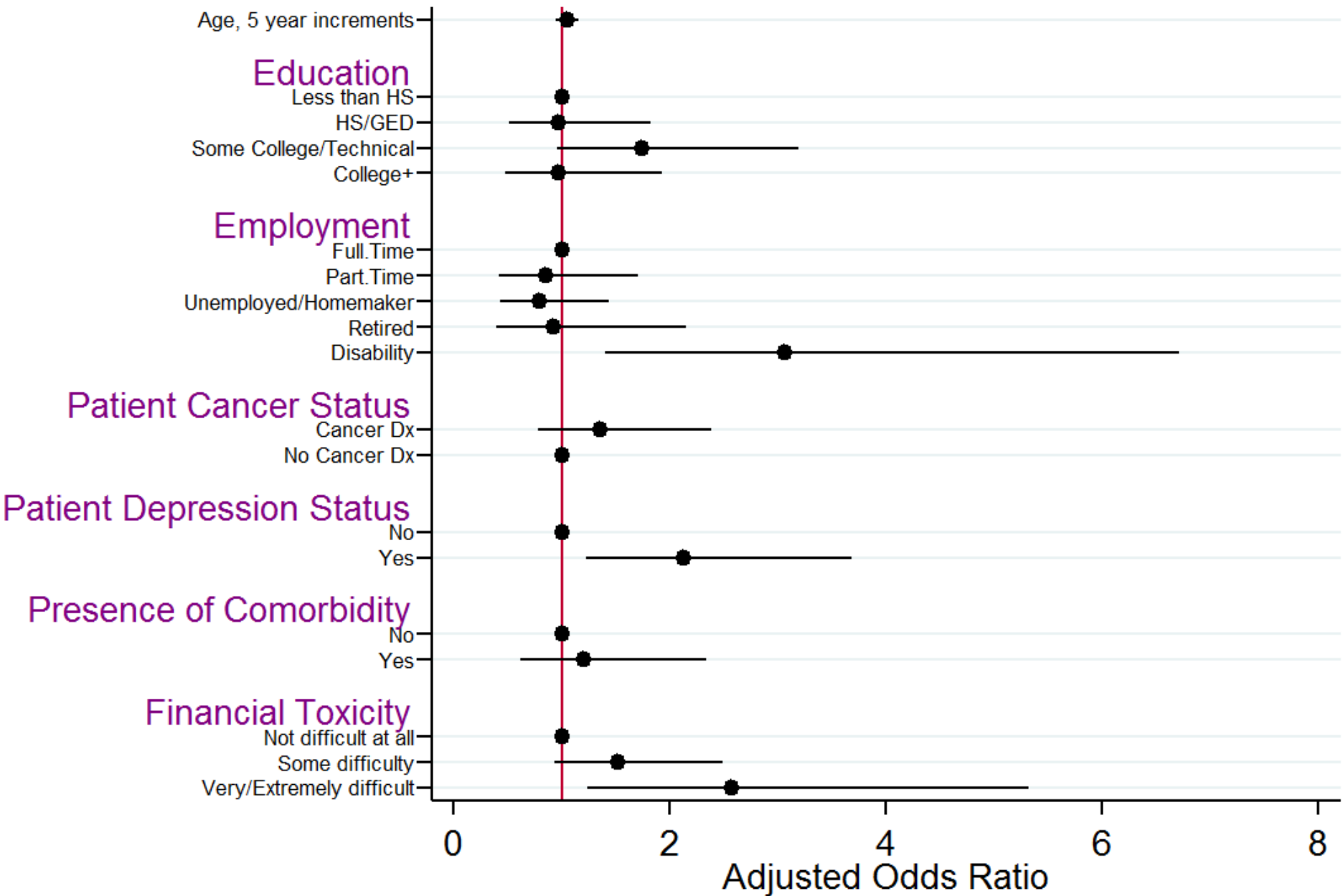


RESEARCH PROJECTS

2. Self-Reported Financial Stress Among Patients Evaluated at A Community Cancer Program. (ASCO Annual Meeting 2017)

- 288 participants: In an adjusted analysis, patients who reported financial stress were more likely to be younger in age (OR = 4.03, $p < 0.001$) unemployed (OR = 3.24, $p = 0.002$), have less than a bachelor's degree (OR = 0.035, $p=0.018$), insured by Medicaid (OR=3.22, $p < 0.011$), and were more likely to rate their QOL (OR = 3.76, $p = 0.031$) as poor, compared to those without financial stress.
- Race, gender, presence of cancer diagnosis and comorbidities were not associated with financial distress.
- Independent predictors of poor QOL were disability (OR = 3.12, $p = 0.005$), depression (OR=2.12, $p=0.007$) and extreme financial difficulty (OR = 2.57, $p = 0.011$).

Fig. Quality of Life by Patient Characteristics



RESEARCH PROJECTS

3. Cancer Genetic Counseling, Testing, and Outcomes in Two Distinct Patient Settings. (Rana et al. Journal of Community Genetics)

- Compared outcomes of cancer genetics consultations at DFCI and WSHC (58 tertiary and 23 FQHC patients) from 2013-2015.
- The two groups differed in race, ethnicity, use of translator services and type of insurance coverage. There were also significant differences in completeness of family history information, with more missing information about relatives in the FQHC group.
- In spite of these differences, genetic testing rates among those offered testing were comparable across the two groups with 74% of tertiary patients and 60% of FQHC patients completing testing
- Discussion focused on consideration for genetic testing in this populations even with less complete family history.

SUMMARY

- An integrated model service model
 - Diagnosis—treatment—survivorship-end of life care
- Streamlined diagnostic services
 - Diagnostic clinic
 - Co-location in community health center
- Internal Medicine and Oncology
 - Prevention
 - Screening
 - Survivorship



CHALLENGES

- ❑ Changing health care climate
- ❑ Competition often dilutes the mission
- ❑ Academic centers → community health centers
- ❑ The work tends to be personality driven not institution driven
- ❑ Community goals versus academic center goals
- ❑ Sustainability



CONCEPTS

- ❑ This model can be used in both licensed and unlicensed health clinics
- ❑ Increases the flow of patient to the cancer center
- ❑ Strengthens bonds in the community
- ❑ Allows for integration of prevention/educational programs:
 - ❑ Genetics
 - ❑ Lung cancer Screening
 - ❑ Dental Referrals for head and neck cancer
 - ❑ Tobacco education initiative in residential addiction recovery programs



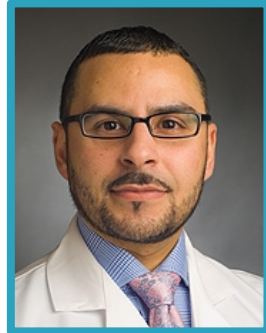
SUMMARY

- Descriptive research in disparities is useful, but the only way to try to address outcomes is via community based interventions.
- Community based interventions take time, and effort to establish relationships, and sustain efforts
- Our outreach initiative needs thorough prospective evaluation of the metrics, although some suggestion of improvement in clinical trial involvement, and time to resolution has been seen.
- Limited by small n. Cost effectiveness can follow after clinical effectiveness is evaluated.

CCEP



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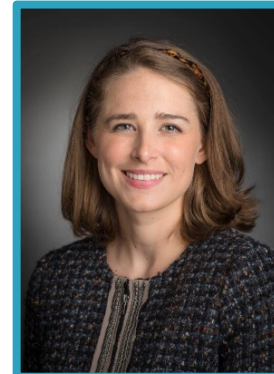
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