Colorado Cancer Coalition

2024 SYMPOSIUM

Together Again

MAY 2, 2024

7:30- AM - 3:30 PM

Colorado Department of Public Health and Environment

4300 Cherry Creek Drive South, Denver CO

(Virtual Option Available)

Colorado Cancer Coalition

2024 Symposium

Together Again

Symposium Website
Agenda
Bios

2021 - 2025
Colorado
Cancer Plan

Symposium
Evaluation

2022 Year
in Review

Wifi Network: CDPHE_Guest
Password: #breathe

May 2, 2024
7:30 AM - 3:30 pm

Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South, Denver CO

Colorado Cancer Coalition

Simposio 2024

Juntos Otra Vez

Página Web del Simposio
Agenda
Biografías

2021-2025
Plan de Lucha contra el
Cáncer Colorado

Simposio
Evaluación

Revisión Anual
2022

Wifi Network: CDPHE_Guest
Password: #breathe

2 de mayo, 2024
7:30 am – 3:30 pm

Departamento de Salud P´blica y Ambiental de Colorado
4300 Cherry Creek Drive South Denver, CO

TEMPUS

Together Again

Colorado Cancer Coalition

Thank you to the planning committee

Allie Bain
Carlin Callaway
Ian Kahn
Tommy Stewart
Peggy Thomas
Bing Walker

Together Again

Colorado Cancer Coalition

Overview of the Colorado Cancer Coalition

Together Again

Colorado Cancer Coalition

Colorado Cancer Coalition

We are a statewide, nonpartisan, multidisciplinary coalition providing education, networking, best practice sharing, and partnership opportunities for those working in oncology care and support. We are committed to providing a neutral space for dialogue from diverse perspectives to further improve cancer outcomes in Colorado.

In addition, we support the needs of Coloradans to prevent cancer, detect cancer early, and enhance quality of life for survivors and their caregivers by disseminating education, cancer resources, and connecting patients and their caregivers to opportunities to advocate for better cancer outcomes in Colorado.

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Colorado Cancer Coalition

Colorado Cancer Coalition

The statewide network dedicated to eliminating the burden of cancer in Colorado.

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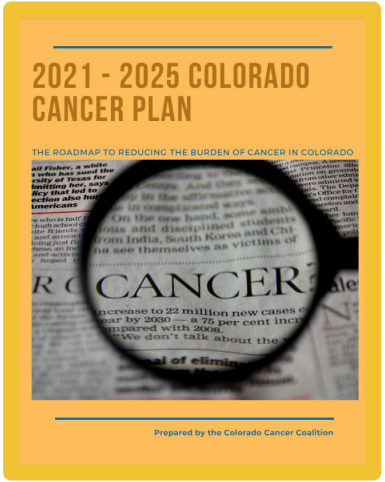
Colorado Cancer Coalition

Colorado Cancer Plan

The guide to reducing the burden of cancer in Colorado.



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Task Forces

Breast Cancer
Lung Cancer
Colorectal Cancer
Prostate Cancer
Skin Cancer
Patient Navigation
HPV Vaccination
Latino Cancer
Survivorship & Palliative Care

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New Leadership!

Trailhead Institute will become new leadership of the Coalition effective May 5th!

trailhead INSTITUTE

For public health innovation

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Colorado Cancer Coalition

Together Again

Colorado Cancer Coalition


Colorado Cancer Coalition


uchealth
Latino
Cancer
Task
Force


www.livebyliving.org
Tell cancer to take a hike
www.livebyliving.org
walks
hikes
retreats


Colorado Cancer Coalition
Colorado Cancer Coalition


FIGHTING
SAVE
LIVES


EPICEXPERIENCE.ORG
EPIC EXPERIENCE
BEYOND CANCER


THE MOST IMPORTANT RESOURCES FOR HURTING PEOPLE WITH CANCER
ON-THE-GO GUIDE
NUTRITION
ON-THE-GO GUIDE
MAKEUP
F*CK CANCER
LOOKING FOR SUPPORT GROUPS?
10 Ways to Protect Yourself against Cancer

"Chase people and passions and you will never fail."

- Candace Parker quoting Pat Summitt

Colorado Cancer Coalition

Thank you!

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Colorado Data Trends and Community Outreach Program Effectiveness

Together Again

Colorado Cancer Coalition

Cancer in Colorado

Colorado Cancer Coalition Symposium

May 2nd, 2024

John Arend, MPH

Program Manager, Colorado Central Cancer Registry

Colorado Department of Public Health & Environment

COLORADO
Department of Public Health & Environment

Colorado Central Cancer Registry

- Authorized by State Statute and the Colorado Board of Health to collect and compile reports of cancer
- Colorado's statewide cancer surveillance program since 1968; Statewide, population-based data since 1988
- Collects, analyzes, and interprets cancer data and identifies trends in cancer incidence in Colorado

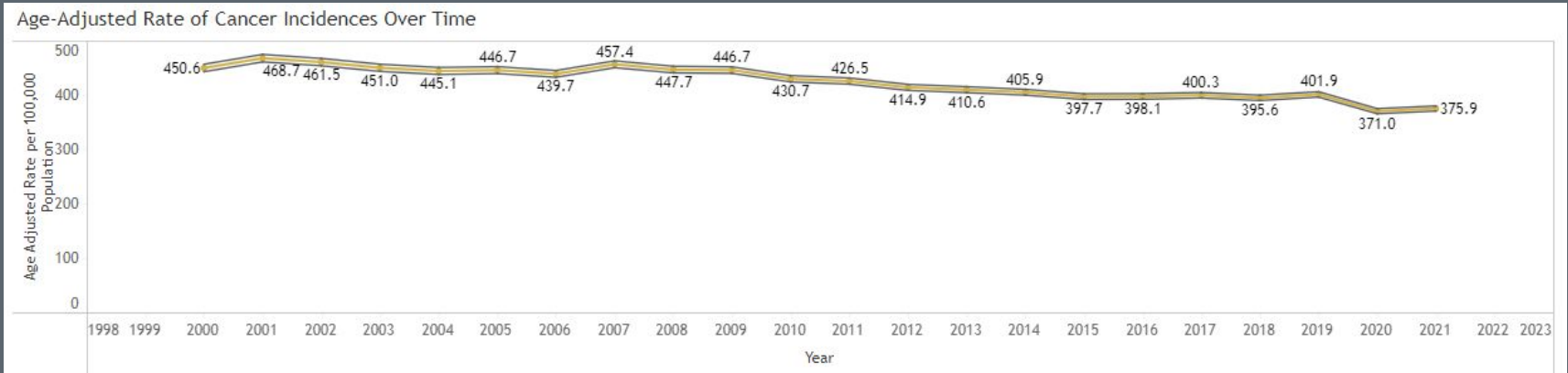
Colorado Central Cancer Registry

- Collect pertinent data on all malignant tumors except basal and squamous cell carcinomas of the skin, and in situ carcinomas of the cervix.
- All Colorado facilities, laboratories, physicians and other health care entities are required to report any diagnosis or treatment of cancer.
- Each report contains information on tumor type, stage of disease at time of diagnosis, treatment methods, and demographic information such as age, sex, race, and residence.

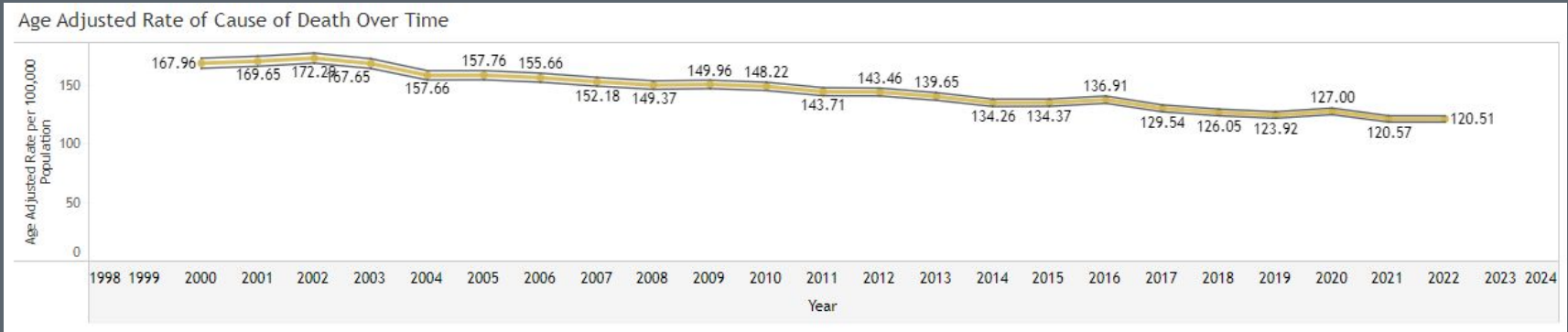
Data Lag

- Complete reporting is typically achieved ~2 years following the end of a calendar year
  - Complete records
  - Consolidation of multiple reports
  - Audits and Case-finding
  - Record linkage

Age-Adjusted Cancer Incidence Over Time – All Cancers



Age-Adjusted Cancer Mortality Over Time – All Cancers



Most Commonly Diagnosed Cancers in Colorado and Annual Average Count, 2017-2021

	Males		Females		Both Sexes	
	All Cancers	12752	All Cancers	13572	All Cancers	26324
1	Prostate	3347	Breast	4351	Breast	4379
2	Colon and Rectum	1329	Lung and Bronchus	1258	Prostate	3347
3	Lung and Bronchus	1153	Endometrial	792	Lung and Bronchus	2411
4	Urinary Bladder	846	Colon and Rectum	786	Colon and Rectum	1611
5	Melanoma	795	Thyroid	577	Melanoma	1357

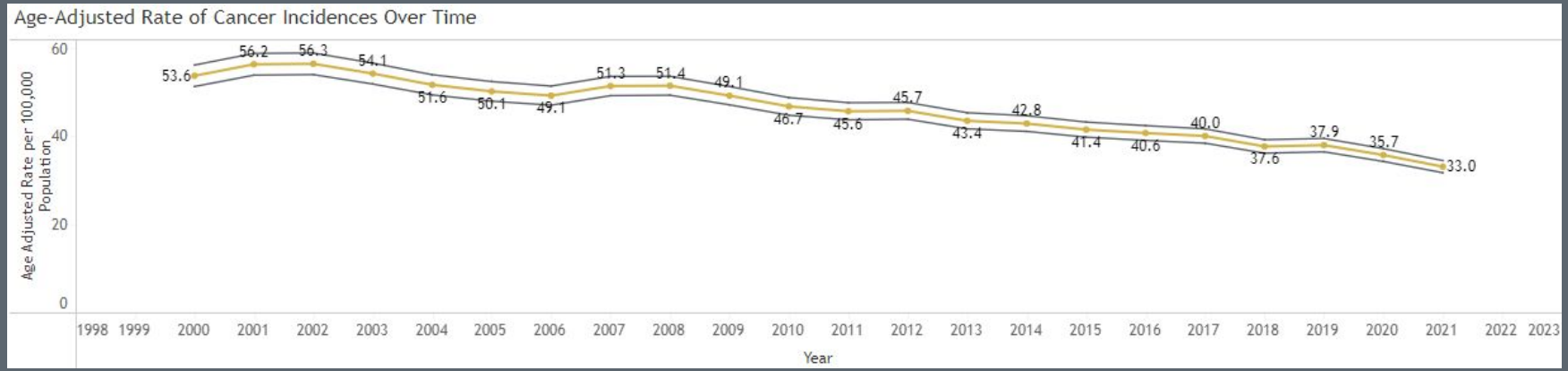
Colorado Central Cancer Registry, CDPHE, 2024
Invasive Cancers Only

Leading Causes of Cancer Deaths in Colorado and Annual Average Count, 2017-2021

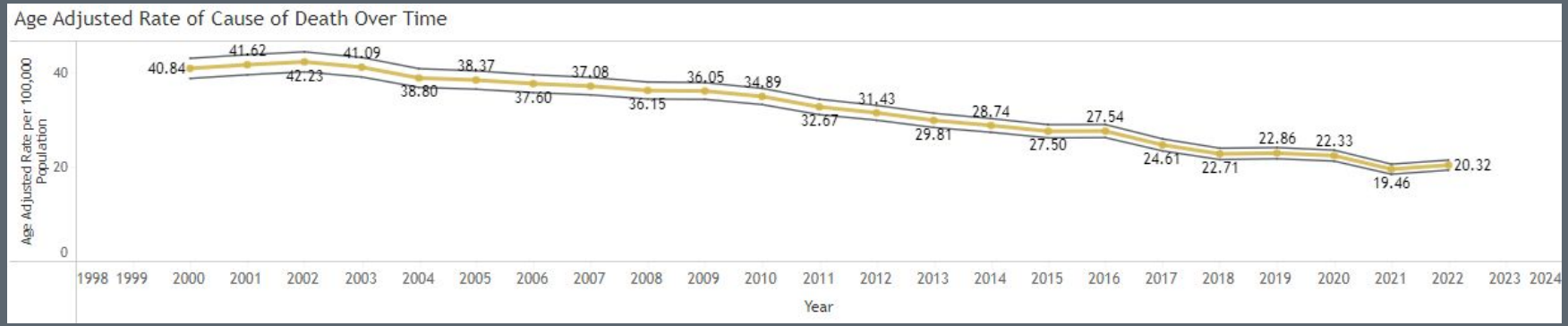
	Males		Females		Both Sexes	
	All Cancers	4308	All Cancers	3887	All Cancers	8194
1	Lung and Bronchus	729	Lung and Bronchus	704	Lung and Bronchus	1433
2	Prostate	538	Breast	629	Colon and Rectum	708
3	Colon and Rectum	375	Colon and Rectum	333	Breast	635
4	Pancreas	328	Pancreas	294	Pancreas	622
5	Liver	249	Ovary	208	Prostate	538

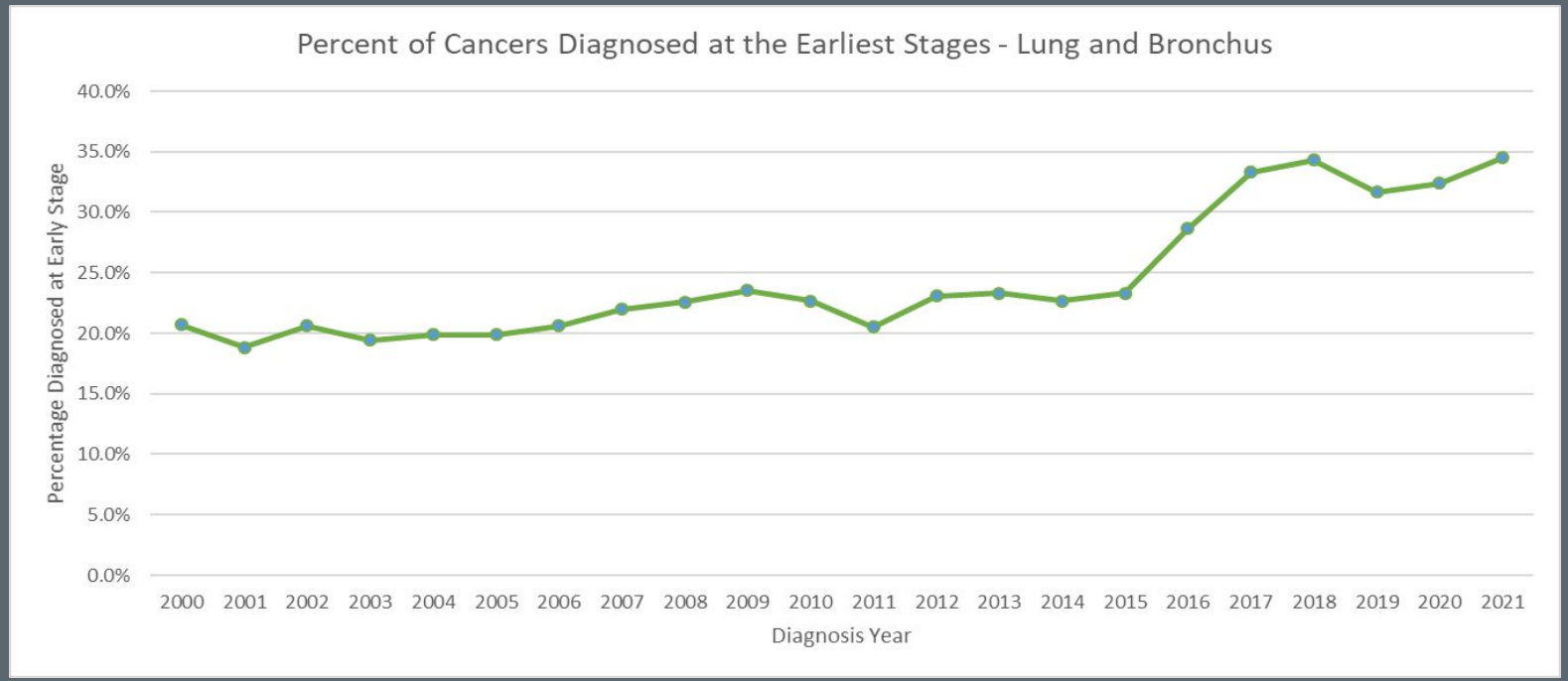
Vital Statistics Program, CDPHE, 2024

Age-Adjusted Cancer Incidence Over Time – Lung and Bronchus

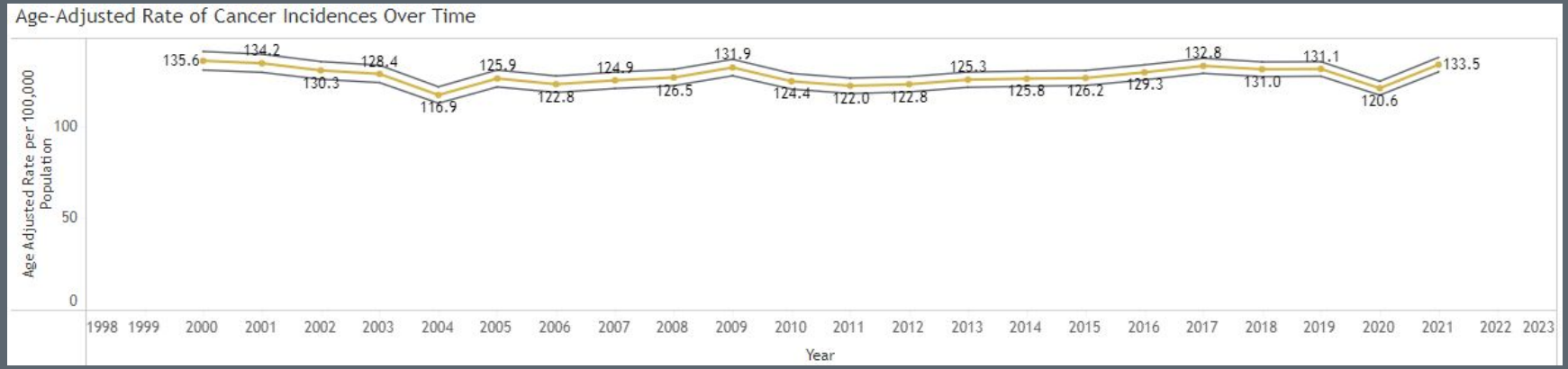


Age-Adjusted Cancer Mortality Over Time – Lung and Bronchus

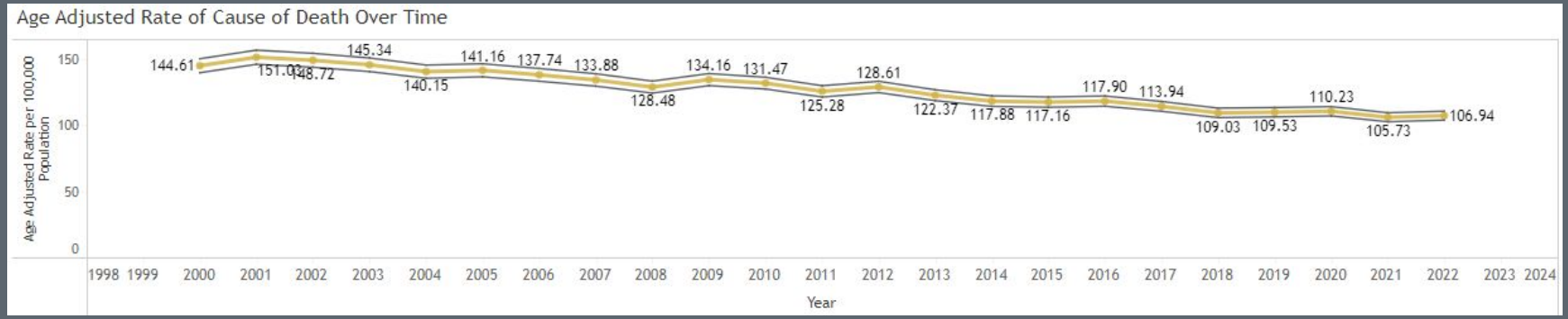



Percent of Cancers Diagnosed at the Earliest Stages - Lung and Bronchus
Percentage Diagnosed at Early Stage
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
Diagnosis Year

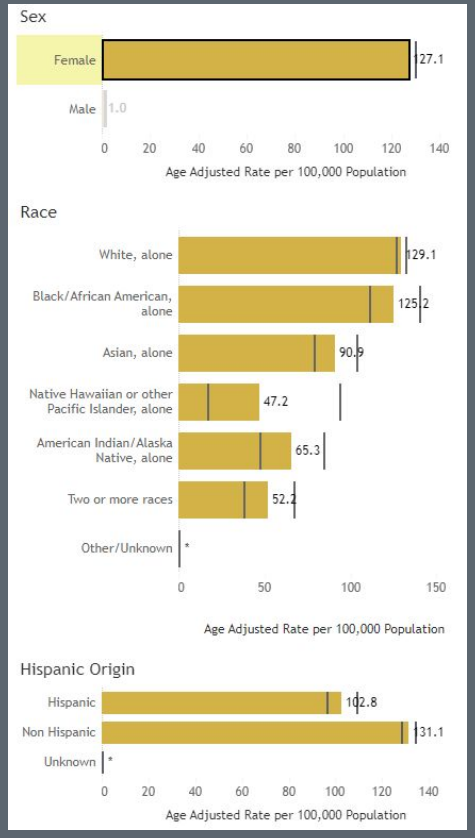
Age-Adjusted Cancer Incidence Over Time – Female Breast



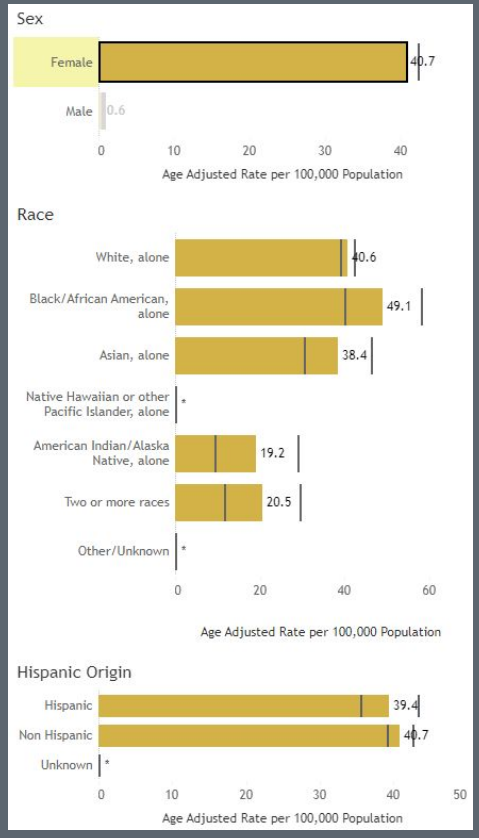
Age-Adjusted Cancer Mortality Over Time – Female Breast



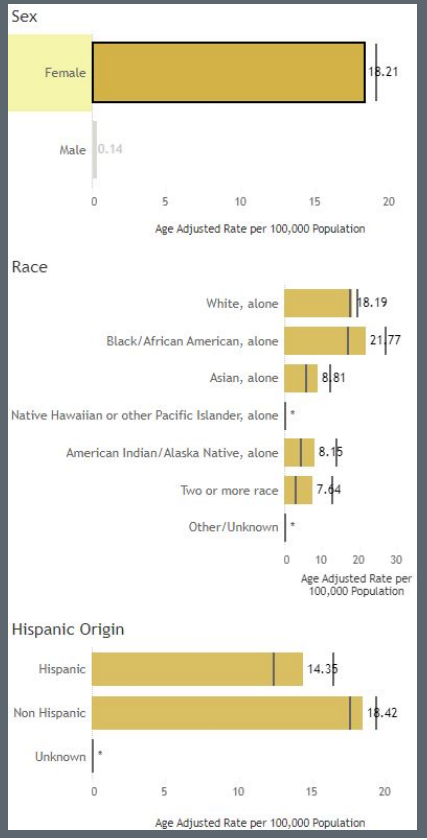
Female Breast Cancer Age-adjusted Incidence Rates 2020-2021



Female Breast Cancer - Late Stage Age-adjusted Incidence Rates 2020-2021



Female Breast Cancer Age-adjusted Mortality Rates 2020-2022



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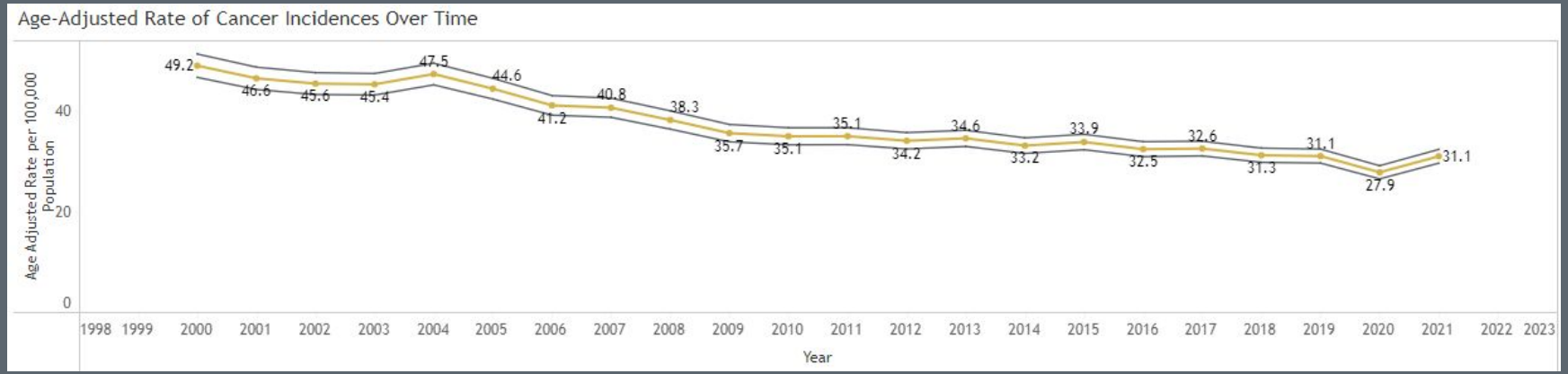
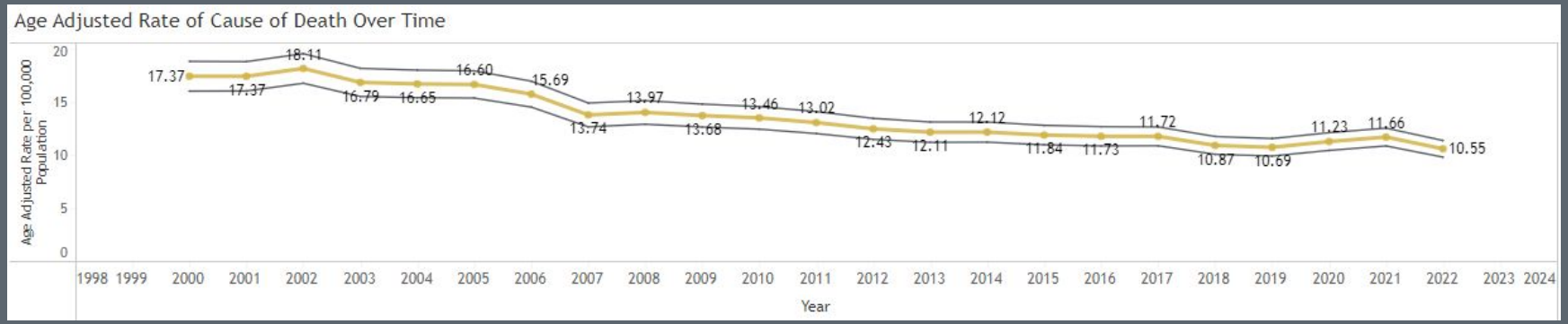
Age-Adjusted Cancer Incidence Over Time – Colon and Rectum



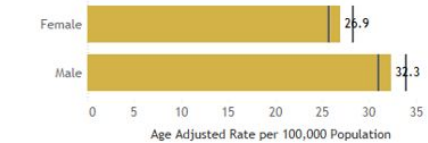
Age-Adjusted Cancer Mortality Over Time – Colon and Rectum



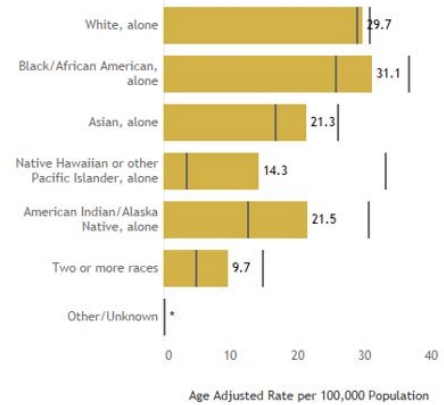
Age Adjusted Rate for --Colon and Rectum Cancer Site in All County for 2020 to 2021:

29.5

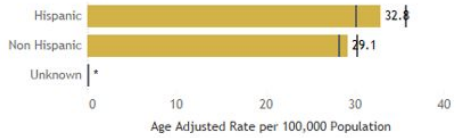
Sex



Race



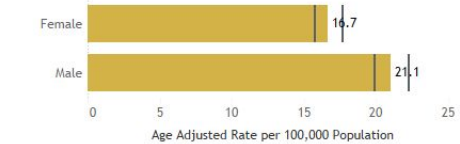
Hispanic Origin



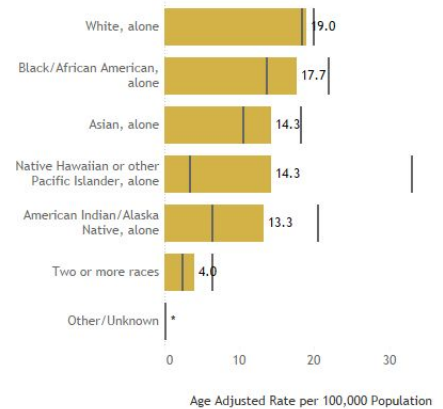
Age Adjusted Rate for --Colon and Rectum, Late Stage at Diagnosis Cancer Site in All County for 2020 to 2021:

18.8

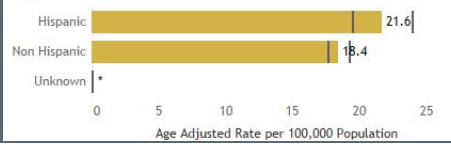
Sex



Race



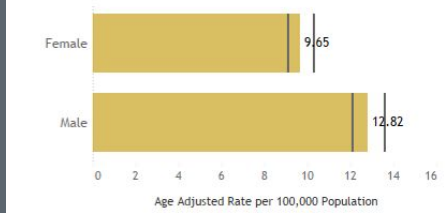
Hispanic Origin



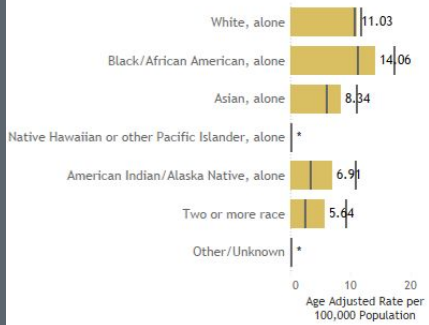
Age Adjusted Rate for --Colon and rectum cancer [will be C18.0-C20.9, C26.0] Deaths:

11.14

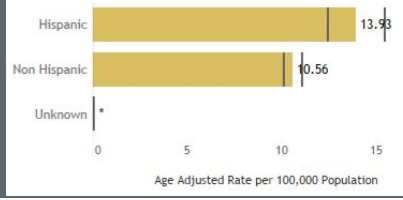
Sex



Race



Hispanic Origin



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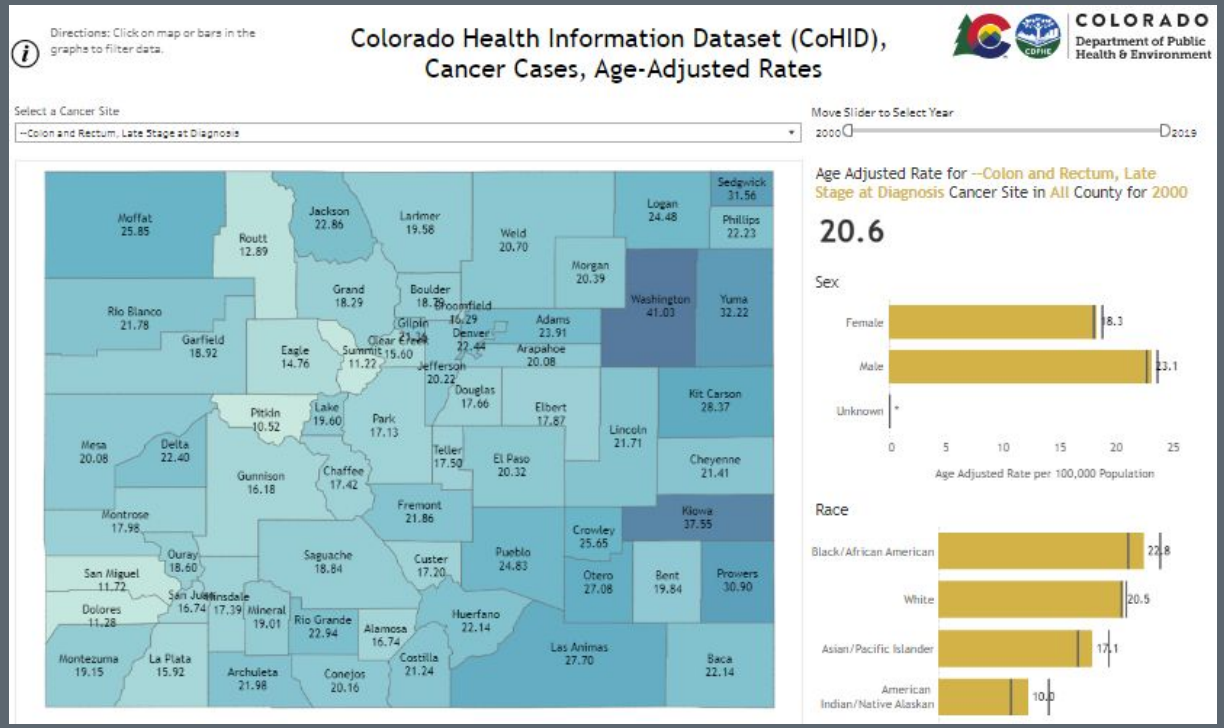
CoHID - https://cdphe.colorado.gov/cohid



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Thank you!

CoHID data : https://cdphe.colorado.gov/cohid

Data requests, inquiries: cdphe.pscaregistry@state.co.us

John Arend
john.arend@state.co.us

Cancer Screening Prevalence Across Our State

Colorado Cancer Coalition Symposium
May 02, 2024

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Department of Public Health & Environment

Before We Start…

- Snapshot only, imprecise
- Better methods, classifications exist
- Programmatic decision – use caution

“Where Are The Data Coming From?”

BRFSS Cancer Screening Data Concerns

- Lung cancer: not available (yet)
- Skin cancer: no trending (yet)

BRFSS Cancer Screening Data Concerns

- Lung cancer: not available (yet)
- Skin cancer: no trending (yet)
- New cervical cancer screening module, 2022
  - Cannot use for foreseeable future
  - 2020 and earlier
  - CDC guidance needed

State of the State

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CO Cancer Screenings

Screening	Year(s)	Estimate (%)	Trend
Non-melanoma Skin Cancer (ever told)	2022	5.7	
Melanoma or other Cancers (ever told)	2022	7.8	
Mammogram Within the Past Two Years, Ages 50-74	2018-2022	71.7	
Mammogram Within the Past Two Years, Ages 40-49	2018-2022	52.7	
Colorectal Cancer Screening Within Recommended Timeframe, Ages 45-75	2018-2022	69.0	
Pap Test Within the Past Three Years, Ages 21-65	2016-2020	77.5	

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2016-2022

Risk and Protective Factors

Part 1:

Body Weight, Insurance, and Poverty

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Mammogram Within the Past Two Years, **Ages 50-74**

71.8%

71.2%

73.6%

36.6%

61.8%

76.7%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022

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Mammogram Within the Past Two Years, **Ages 40-49**

52.8%

52.2%

55.0%

35.3%

43.2%

61.5%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022

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Colorectal Cancer Screening Within Recommended Guidelines

70.3%

68.1%

71.4%

27.7%

60.1%

67.5%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022

Pap Test Within the Past Three Years

76.7%

78.7%

79.1%

66.8%

70.8%

81.0%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2016-2020

Risk and Protective Factors

Part 2:

Smoking, Geographic Region, and Alcohol Consumption

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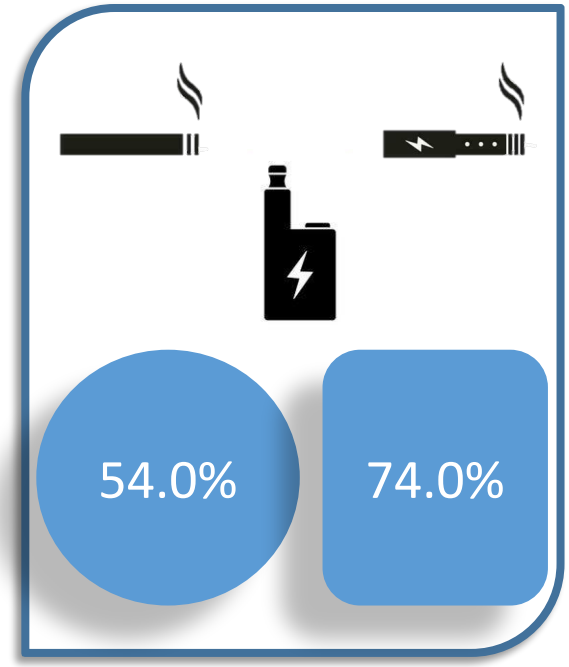
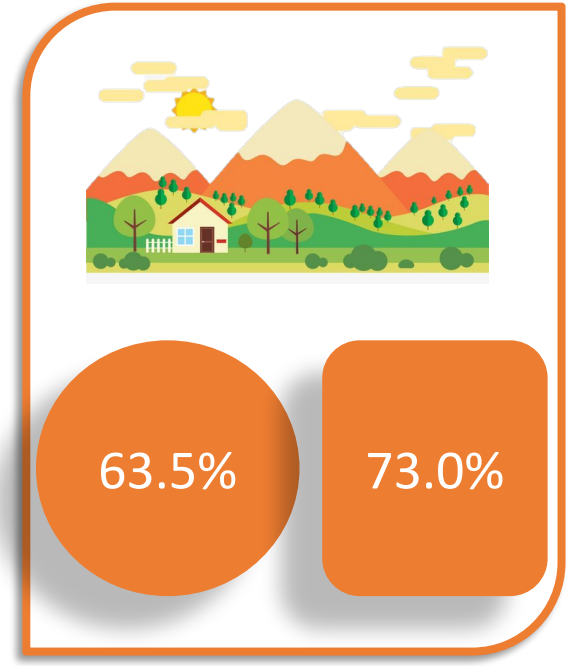
& Environmental Data
Department of Public Health & Environment

Mammogram Within the Past Two Years, **Ages 50-74**





Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022

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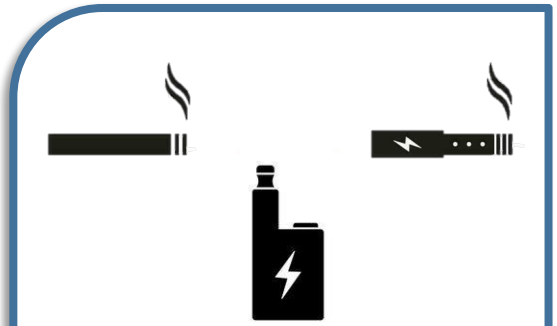
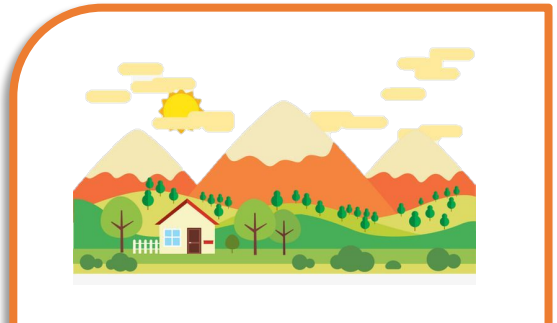
Mammogram Within the Past Two Years, **Ages 40-49**



41.2% 54.2%



41.2% 54.2%

45.5% 53.2%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022

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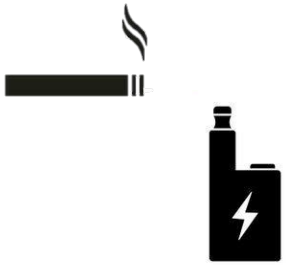
Department of Public Health & Environment

Colorectal Cancer Screening Within Recommended Guidelines



56.2%

70.7%

62.8%

70.1%

68.2%

69.3%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2018-2022

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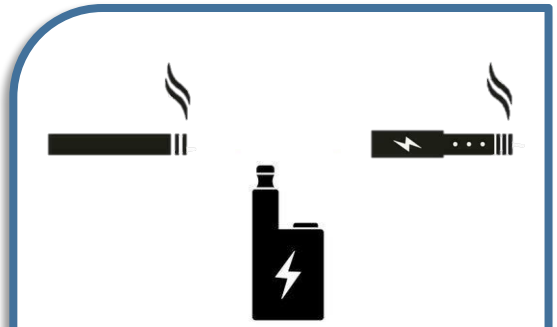
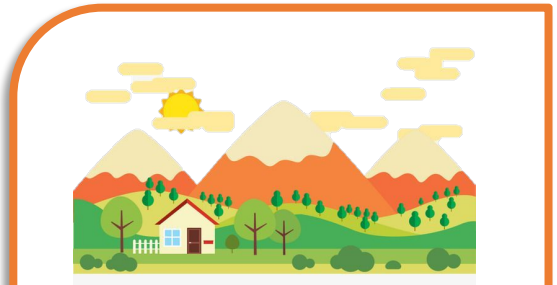
Pap Test Within the Past Three Years



71.8% 78.4%



75.1% 78.4%

79.0% 77.4%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2016-2020

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Associated Factor:

Race and Ethnicity

Screenings by Race and Ethnicity

African American Only, non-Hispanic

Mammogram (50-74): 77.4%
Mammogram (40-49): 52.6%
Colorectal Cancer: 67.4%
Pap Test: 79.3%

Hispanic

Mammogram (50-74): 68.5%
Mammogram (40-49): 50.9%
Colorectal Cancer: 59.1%
Pap Test: 77.9%

White Only, non-Hispanic

Mammogram (50-74): 72.4%
Mammogram (40-49): 54.4%
Colorectal Cancer: 71.5%
Pap Test: 78.3%

Other Race Only, non-Hispanic and Multiracial, non-Hispanic

Mammogram (50-74): 63.6%
Mammogram (40-49): 45.3%
Colorectal Cancer: 60.8%
Pap Test: 68.1%

Source: Colorado Behavioral Risk Factor Surveillance System (BRFSS), 2016 – 2020, 2018-2022

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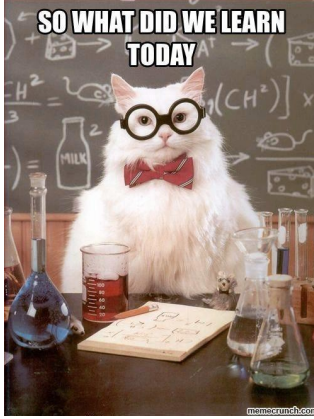
Department of Public Health & Environment

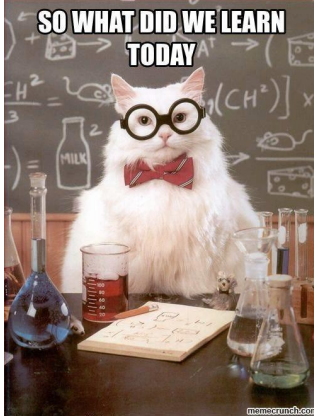
Data Takeaways

- Mammograms (50-74): Holding steady
- Mammograms (40-49): No one’s doing great, but improving
- Colorectal Cancer Screenings: Bump up in 2020, bump down in 2022
- Pap Testing: Unclear



Data Takeaways

- Mammograms (50-74): Holding steady
- Mammograms (40-49): No one's doing great, but improving
- Colorectal Cancer Screenings: Bump up in 2020, bump down in 2022
- Pap Testing: Unclear
- Risks and Protections
  - Insurance is widely important
  - Those above 250% FPL generally reported higher screening prevalence
  - Current smoking associated with lower screening prevalence
  - Rural and urban residency
  - Heavy alcohol consumption associated clinically, mixed bag in BRFSS
  - Lower screening prevalence for Persons of Color (why?)



Public Information Source:

VISION

*(*Visual Information System for Identifying Opportunities and Needs*)*

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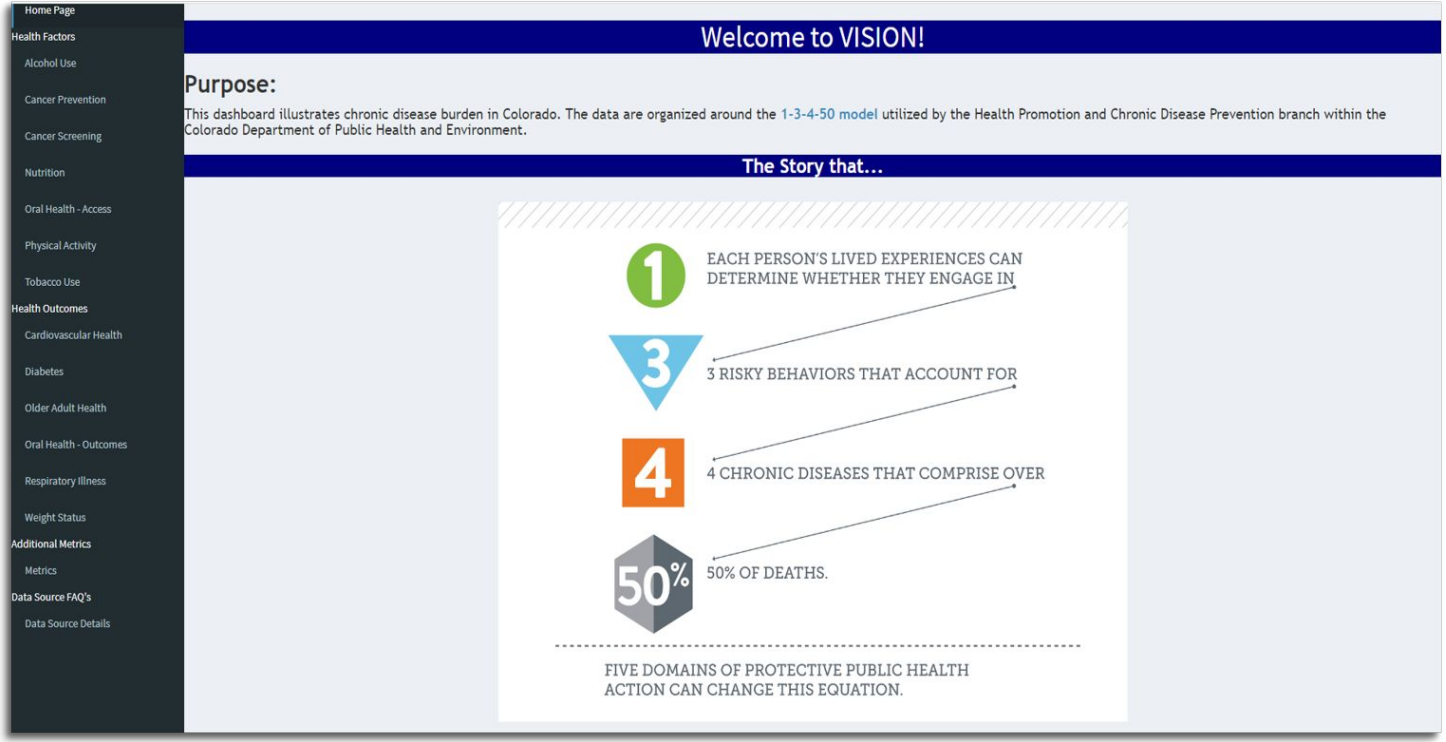
Department of Public Health & Environment

VISION



COLORADO
Center for Health & Environmental Data
Department of Public Health & Environment

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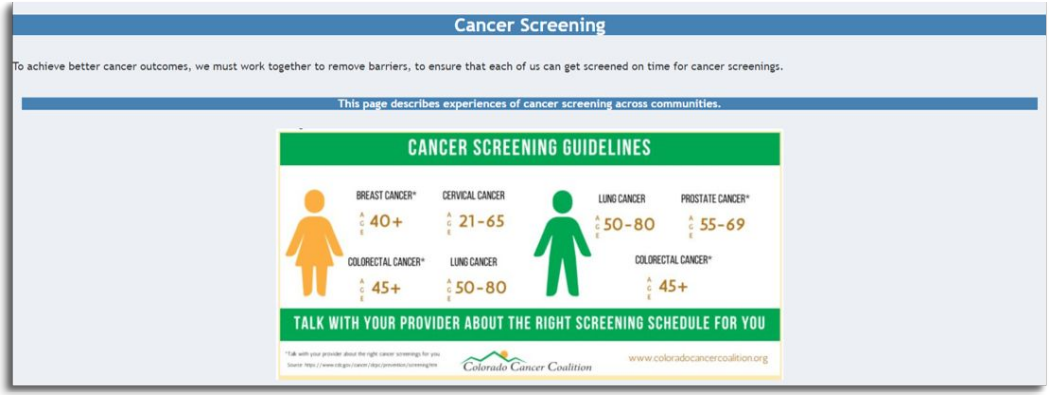
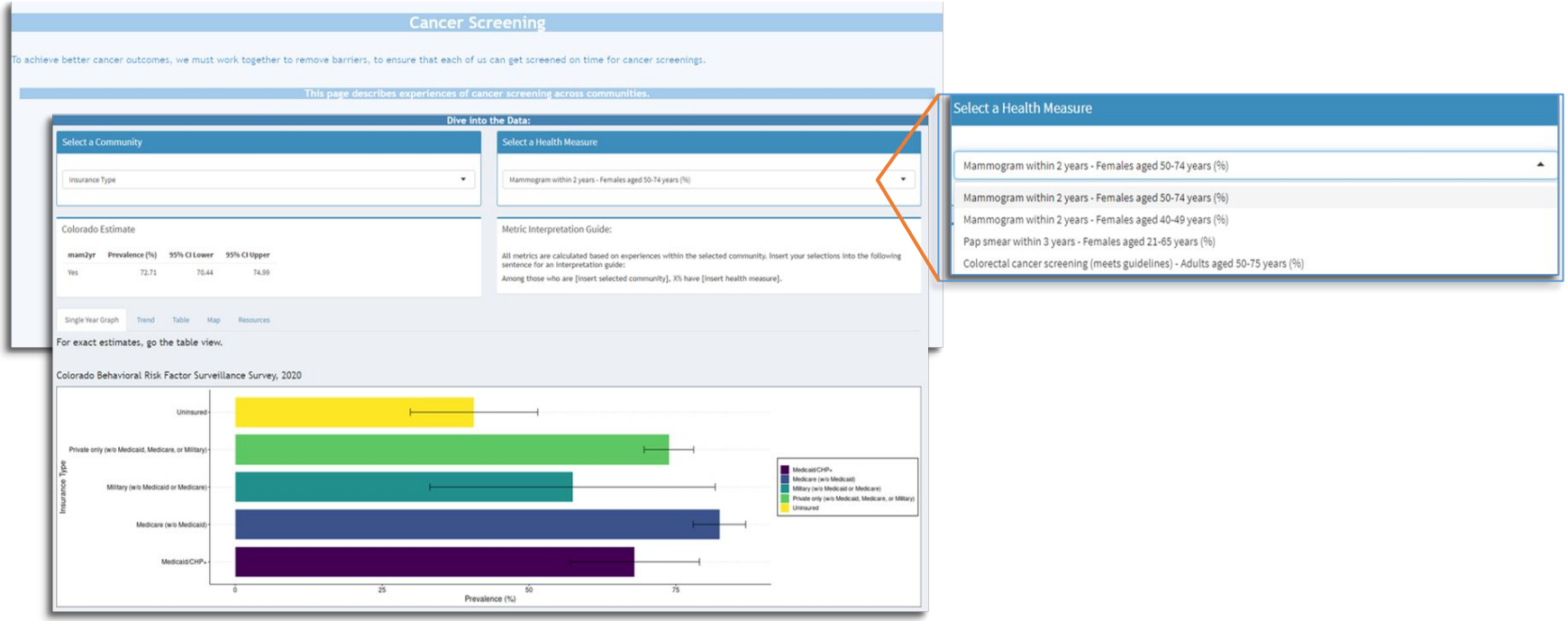

Cancer Screening
To achieve better cancer outcomes, we must work together to remove barriers, to ensure that each of us can get screened on time for cancer screenings.
This page describes experiences of cancer screening across communities.
CANCER SCREENING GUIDELINES
BREAST CANCER*
AGE 40+
CERVICAL CANCER
AGE 21-65
COLORECTAL CANCER*
AGE 45+
LUNG CANCER
AGE 50-80
LUNG CANCER
AGE 50-80
PROSTATE CANCER*
AGE 55-69
COLORECTAL CANCER*
AGE 45+
TALK WITH YOUR PROVIDER ABOUT THE RIGHT SCREENING SCHEDULE FOR YOU
Colorado Cancer Coalition
www.coloradocancercoalition.org

VISION



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Department of Public Health & Environment

Thank You!

Health Statistics and Evaluation Branch, CDPHE
Dennis Wright, II, MPH
Lead Cancer Epidemiologist

E-mail: dennis.wright@state.co.us

Data Links: CO BRFSS

CoHID

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Department of Public Health & Environment

Cost-Effectiveness Evaluation of Community-Clinical Linkages to Increase Breast and Cervical Cancer Screening

May 2, 2024

EMORY | ROLLINS SCHOOL OF PUBLIC HEALTH

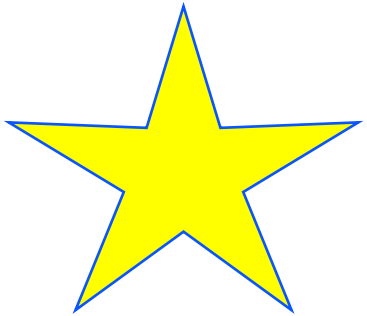
Evaluation Team: Rollins School of Public Health of Emory University

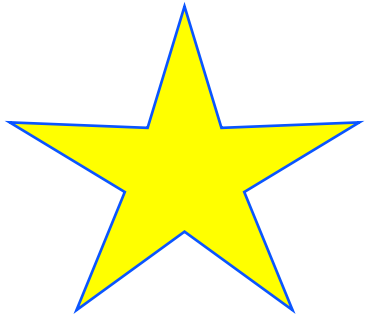
Victoria Phillips, DPhil
Associate Professor

E. Kathleen Adams, PhD
Professor

Jonathan Hawley, BS
Project Manager

Special Thanks to our Colorado Department of Public Health and Environment (CDPHE) Partners

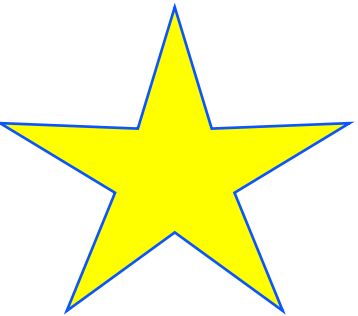


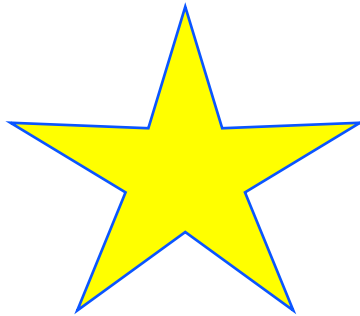


Ivy Hontz, MA, MS

Program Coordinator

Women's Wellness Connection





Shannon Lawrence, MA

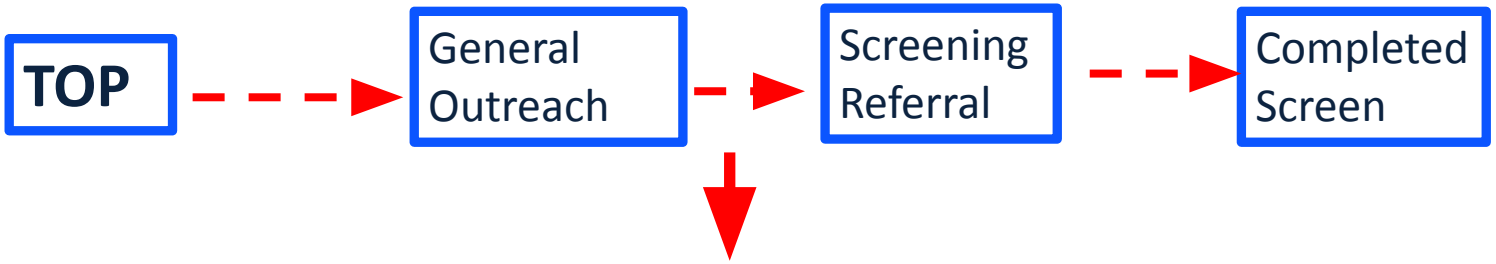
Evaluation Unit Supervisor

Chronic Disease and Epidemiology Evaluation Program

From the Targeted Outreach Program (TOP) to The Community Outreach Strategy (TCO)

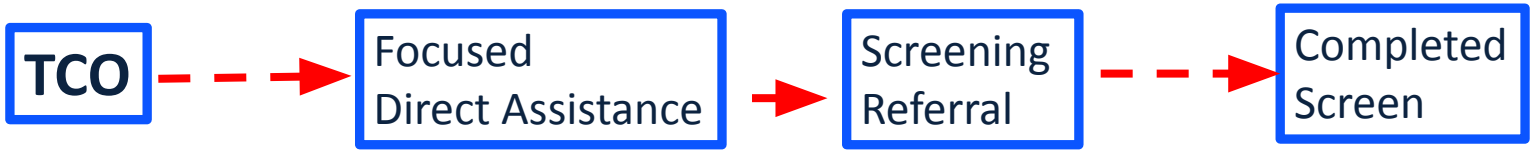
- In Fiscal Year (FY) 2019, the Women's Wellness Connection at the Colorado Department of Public Health and Environment (CDPHE) transitioned from the TOP to TCO strategy[1]
- While the goal of both programs was to increase breast and cervical cancer screening rates among women who were underserved, TCO introduced a number of changes to improve program performance and outcomes

. Initially the TCO strategy was referred to as Targeted Community Outreach



The Community Outreach (TCO) strategy transitioned to:

- Carefully defined direct assistance activities
- Systematic data collection to guide planning and evaluate performance
- A renewed focus on underserved populations
- An emphasis on building outreach program and clinical linkages



Cost-Effectiveness Evaluation

- As TCO was a new investment, our goal was to identify the health gains achieved as the program grew from year-to-year in one urban and one rural site
- We initially compared spending and rates of screening for breast and cervical cancer for the first fiscal year (FY) of TCO in 2019 to the last year of TOP in FY 2018, serving as a baseline
- We then compared each year of TCO to the prior year for the period FY 2019-2021
- We compared each year in terms of changes in spending and screening rates from year to year to determine TCO cost-effectiveness, defined as the cost of screening one additional woman[2]

- [2]Know as the incremental cost-effectiveness ratio

Implementing The Community Outreach (TCO) Strategy

- We anticipated a start-up period during which training on the new definitions of direct assistance and on the new data collection system would take place
- We anticipated that productivity may initially fall as the program requirements were implemented and incorporated into current practice
- In the subsequent years, we anticipated that the program would settle into a steady state or a predictable level of on-going performance
- Unanticipated was the impact of COVID-19 and the associated lockdowns on program performance

Urban Site Results

- *Outreach locations* transitioned from community centers (27.3%) and food pantries (25.8%) to a focus on community outreach centers (84.8%)
- The percent of women provided direct assistance, who were *uninsured*, increased substantially, from 16.7% in the TOP baseline year to 48.4% in 2021 as a proportion of women served
- *Barriers* most commonly reported were homelessness (30.8*%) and the need for financial assistance (28.5%) in Years 1 and 2, then to health literacy challenges (49.1%) and interpreter support (42.2%) in Year 3 as the percent of Hispanic women receiving direct assistance increased

The Cost per One Additional Woman Receiving a Screen Among Those Receiving Direct Assistance: Breast and/or Cervical: Urban Site

Fiscal Year (FY)	Average Spending per Woman Receiving Screen ($)	Additional Cost per Woman Screened ($)	Percent of Women Receiving Screen (%)	Additional Percent of Women Screened (%)	Spending per Additional Woman Screened ($)
FY 2018	1220		68		
FY 2019	702	(-518)	55	-13	Spending Declined Percent Screened Declined
FY 2020	935	233	65	10	$2330 per one additional woman screened (233/0.10)
FY 2021	810	(-125)	71	6	Cost-Saving!

Rural Site Results

- *Outreach locations* transitioned from food pantries to a focus on community outreach centers
- The percent of women provided direct assistance, who were *uninsured*, increased in 2020 to 41%, then decreased to 22% in 2021, as a proportion of women served
    - The number of privately insured women rose
- *Barriers* reported shifted from the need for financial assistance and transportation to most women reporting a need for transport assistance, 92%, in 2021

The Cost per Additional Woman Receiving Screen Among Those Receiving Direct Assistance: Breast and/or Cervical: Rural Site

Fiscal Year (FY)	Average Real Spending per Woman Completing Screen ($)	Cost per Additional Woman Screened ($)	Percent of Women Completing Screen (%)	Additional Percent of Women Screened (%)	Spending per Additional Woman Screened ($)
FY 2018	1008		66		
FY 2019	888	(-120)	53	(-13)	Spending Declined and Number of Women Screened Declined
FY 2020	1536	648	81	28	2314 (642/0.28)
FY 2021	1139	(-397)	36	(-45)	Spending Declined and Number of Women Screened Declined

Site Summaries

- TCO programs initially contracted in both sites likely due to a reduction in real funding and the changes in definitions of direct assistance
- In year 2, in both programs, TCO costs increased along with the percent of women screened at a cost of $2330 in the urban site and $2314 in the rural site
- The positive dollar value per one additional woman screened in Year 2 for both TCO sites is *consistent* with estimates for similar, intensive, multi-component interventions reported in the cost-effectiveness literature

Site Summaries

- In year 3, the urban TCO became cost-saving
- This is likely due to an increase in program productivity and the fact that the urban site was able to work with a mobile van program and access existing electronic health records as an outreach source during the COVID-19 period
- In Year 3, the rural TCO contracted likely due to COVID-19 challenges and in particular the loss of key staff with institutional knowledge of program

Select Limitations

- Data on some measures were not available for the TOP period
- We could not address breast and cervical cancer cost-effectiveness separately as both efforts were run under the same umbrella and program spending could not be differentiated

Thank you!

Questions?

Post Diagnosis Patient Navigation

Together Again

Colorado Cancer Coalition

Workforce Opportunities in Cancer Patient Navigation and Community Health Work

Presenting:
Andrea Dwyer-Colorado School of Public Health
Acknowledgements: Elsa Staples, Patti Valverde, Erin Martinez, American Cancer Society

Coalitions and Networks

About The Alliance

- The Alliance of Colorado CHWs, PNs, PdS promotes policies, programs, and partnerships that: reduce and eliminate barriers to quality health care both within health systems and the community; reduce disparities in health outcomes; and foster ongoing health equity.
- Current Activities:
  - Community-Based Steering Committee for the Colorado Site of the Cancer Prevention and Control Research Network (grant ending October 2024)
  - Convening partners to build partner engagement and support workforce development for CHWs, PNs, and PdS work in Colorado and nationally.
    - HRSA CHW Training Program in CO: 3-year grant and partnership with Trailhead Institute and the Patient Navigation and Community Health Worker Training Program – coordination of host sites for CHW internships
    - Webinars/Listening sessions: CHW reimbursement/sustainability topics
  - Alliance Newsletter: Promoting activities and resources for CHWs/PNs/PdS. Sign up here!
  - CO Local Navigator Network: partnership with AONN+ – host quarterly virtual meetings for PN networking and education

AONN+ Colorado Local Navigator Network

- The Academy of Oncology Nurse & Patient Navigators (AONN+) is focused on supporting local networks of navigators to facilitate communication among peers, host professional development opportunities, and improve patient outcomes across the cancer continuum.
  - 35+ LNNs across the US and internationally
- The Alliance re-launched the Colorado LNN in summer 2023 to provide training, education, collaboration, and networking opportunities among navigators, CHWs, and partners across the state on at least a quarterly basis.
- Upcoming LNN events: two in-person Navigator Night Outs (sponsored by AstraZeneca). Save the date! Registration coming soon.
  - Colorado Springs – June 6: Precision medicine and hereditary cancer basics
  - Fort Collins – July TBD: Oncologic emergencies
- Details and registration for upcoming LNN meetings are sent through The Alliance's bi-weekly newsletter. Sign Up Here!

National Navigation Roundtable ACS

MISSION:

High quality cancer care for all through evidence-based patient navigation

VISION:

NNRT is a collaboration that advances patient navigation efforts to eliminate barriers for quality care, reduce disparities in health outcomes and foster ongoing health equity across the cancer continuum.

Five-Year AIM (2021-2026)

To support the creation of a sustainable model for oncology patient navigation to achieve health equity across the continuum of cancer care.

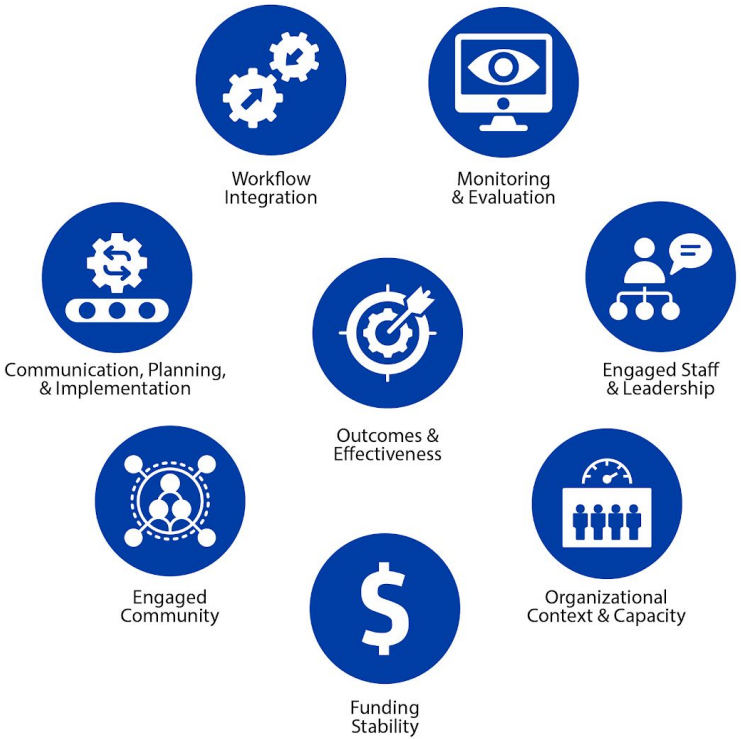
National Navigation Roundtable (NNRT)
https://navigationroundtable.org/

American Cancer Society®

NATIONAL NAVIGATION ROUNDTABLE

Sustaining and Paying for Patient Navigation

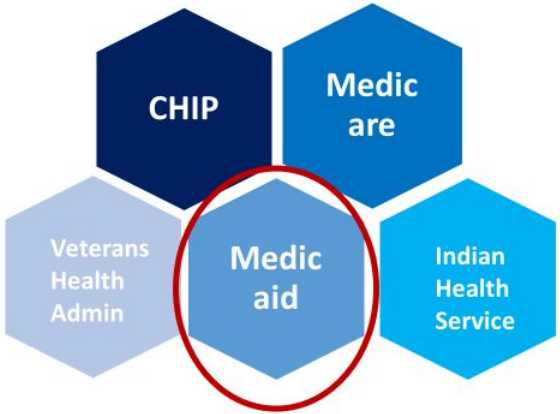
Patient Navigation Sustainability Assessment Tool
PNSAT



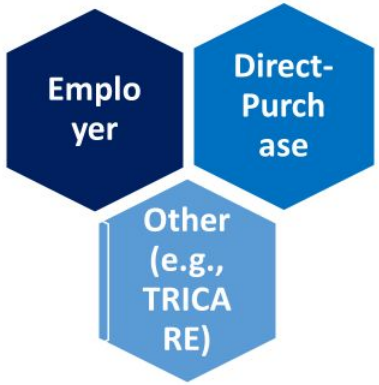
Staples ES and Dwyer AJ. (2023). Patient Navigation Sustainability Assessment Tool – Short Version. Colorado School of Public Health and University of Colorado Cancer Center, Aurora, CO.

U.S. Health Insurance Landscape

Public Health Insurance



Private Health Insurance

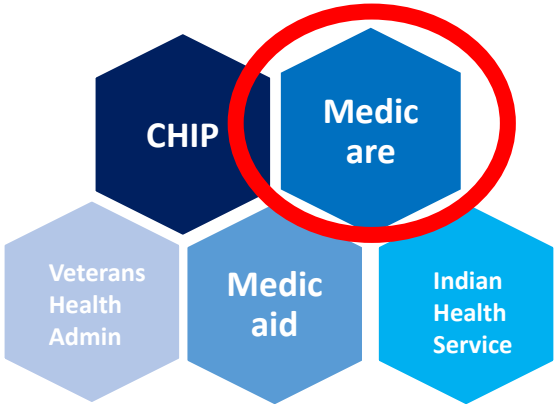


SB23-002, Medicaid Reimbursement For Community Health Services | Colorado General Assembly

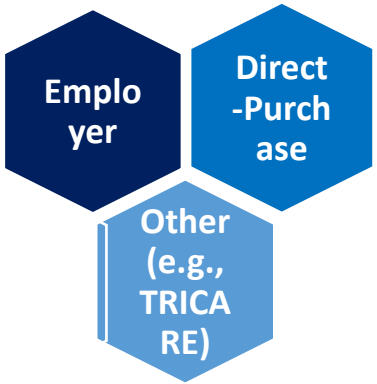
- The details of the state plan amendment that will be discussed during the stakeholder process:
  - The Covered Services vs. Non-Covered Services
    - Typically other states have covered services such as: health education, health navigation, and connection to community based resources. Here's a link to trends among other states: Summary of Medicaid State Plan Amendments for Community Health Workers (chcf.org).
  - Minimum Qualifications a CHW will have to demonstrate:
    - Leveraging CDPHE's Voluntary Competency-Based Community Health Worker Registry. Consists of completion of a CDPHE-recognized training program to become registry-listed: Colorado Health Navigator Registry | Department of Public Health & Environment.
  - Reimbursement Methodology Aspects such as billing codes, billing rates, etc
    - SB23-002 requires a Community Health Worker to work under the supervision of a clinician or within a licensed or otherwise approved and Medicaid-enrolled Health Provider agency

U.S. Health Insurance Landscape

Public Health Insurance



Private Health Insurance



Rule Summary

	Purpose	HCPCS Codes (i.e., billing codes)
Principal Illness Navigation (PIN) Services	Assist Medicare enrollees **with high-risk conditions** identify and connect with clinical and support services	**G0023** – PIN services 60 minutes/month **G0024** – PIN services, additional 30 minutes **G0140** – PIN- Peer Support, 60 minutes/month **G0146** – PIN- Peer Support, additional 30 minutes **G0511 –** Payment of PIN services in FQHCs/RHCs
Community Health Integration (CHI) Services	Address **unmet health-related social needs (HRSN)** that affect diagnosis and treatment of a Medicare enrollee's medical conditions	**G0019 –** CHI services 60 minutes/month **G0022** – CHI services, additional 30 minutes **G0511 –** Payment of CHI services in FQHCs/RHCs
Social Determinants of Health (SDOH) Risk Assessment	**Assessment** of Medicare enrollee's SDOH/social risk factors that influence diagnosis or treatment of medical conditions	**G0136 –** SDOH risk assessment 5-15 minutes, not more than every 6 months

https://www.cms.gov/files/document/mln9201074-health-equity-services-2024-physician-fee-schedule-final-rule.pdf-0 .

- Training and Support of Oncology Patient Navigation

Training and Workforce Support for CMS and Medicaid

Medicaid and Medicare:

- Colorado is defining the requirements for the training and credentialing.
- CDPHE has an established CHW (to include PNs and PdS) pathway for Workforce development with Credential Process
- Colorado has developed programs which will likely be the designated training opportunities:
  - PNCT
  - Metro State
  - Otero Community College

Cancer Specific Online Trainings

- American Cancer Society: Leadership in Oncology Navigation
- George Washington: Oncology Patient Navigator Training

Other Cool Stuff

Colorado in Spotlight

- Medicaid Work in Colorado is leading the nation in roll out of CHW Work and policy best practices
- CDPHE has a number of patient navigation facing cancer programs to support PN
- University of Colorado Cancer Center included in the Biden Moonshot work with CMS and AMA to monitor uptake of CMS
- Many health systems in CO have people in leadership roles for NCCN, ASCO , AONN+, ONS and other societies to help lead the way.
- American Cancer Society devoting significant resources to grants and navigation workforce initiatives

Patient Navigation and Health Equity

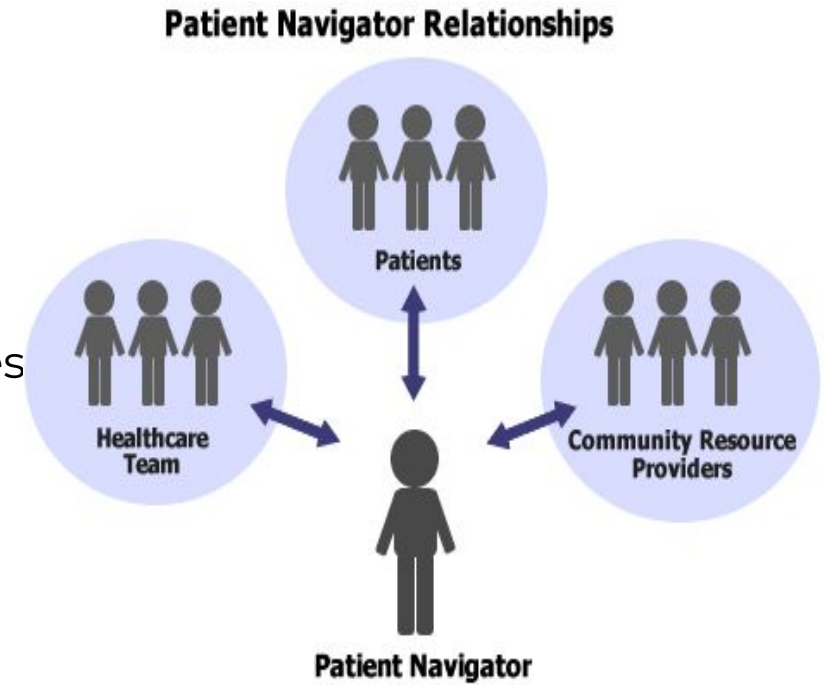
Jennaya Colons, PTA, Penrose Cancer Center Outreach Liaison
Co-Chair Patient Navigation Task Force
JennayaColons@Centura.org

Colorado Cancer Coalition Symposium May 2, 2024

CommonSpirit

What is Patient Navigation?

- **Helps individuals successfully move through a multifaceted health system.**
- Shown to shorten time from screening to diagnosis and treatment (Chan et al., 2023).
  - Cost effective
- Increase access to knowledge and resources (Kokorelias et al., 2021).
  - Improves understanding of care.



CommonSpirit

Community Health Workers

Common titles: health navigator, health coach, community health advisor, family advocate, health educator, liaison, promotora, outreach worker, peer counselor, patient navigator, health interpreter public health aide, etc.

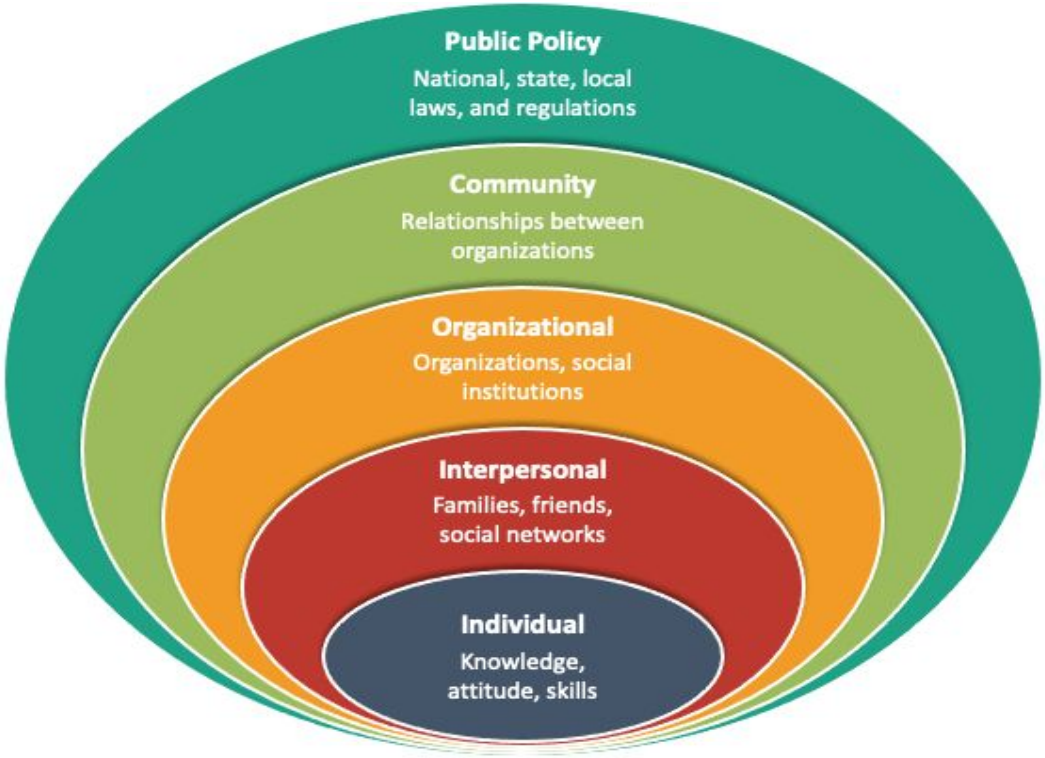
- Shared cultural or lived experiences
- Health Promotion for sustainability
    - Cultural mediation, motivational interviewing, health behavior skill building, community assessments, care coordination (PNTC, 2024).
- National and local job demand
    - 14% growth rate nationally (Bureau Labor of Statistics, 2024).
    - Insurance reimbursement available
    - Career growth opportunities
- ROI- $2.47:1 (Impact Care and Penn State, 2023).
- Community Based Organizations Partnerships for infrastructure support

CommonSpirit

Social Determinants of Health

Increasing access to resources like transportation, walkable spaces, childcare, community centers, and food improve health and increase an individual's ability to participate in society, benefiting everyone (Pronk et al., 2020).

Movement towards Health Equity



CommonSpirit

THANK YOU!

CommonSpirit

Exploring a Potential Palliative Care Benefit in Colorado Medicaid

Presented by: Katie TenHulzen, MA

Research + Analysis Team Lead

Department of Health Care Policy and Financing

Our Mission:

Improving health care equity, access and outcomes for the people we serve while saving Coloradans money on health care and driving value for Colorado.

What's Palliative Care?

Palliative care:

- Can include curative treatment
- Team-based care
- Centered around patient's goals
- Can be at home or in the community

Palliative care is NOT:

- Hospice, or end of life care only
- Pre-hospice
- Provided only in hospital settings

Why We're Here

To explore the potential of a Medicaid palliative care benefit for members of all ages.

- Existing need among our members
- Other states are beginning to cover palliative care through Medicaid
- Technical assistance grant from NASHP

What We've Done So Far

- Research into:
  - Published literature
  - Potential for cost savings
- Benefit design
  - Which providers?
  - Required certifications?
  - Which services?
  - How will billing work?
- Provider survey
- Stakeholder discussions

Stakeholder Discussions

Colorado hospital palliative care providers

Other state Medicaid programs

Advocacy groups in local communities

National palliative care experts

Themes We've Heard

- Excitement about the possibility of this benefit
- Education around palliative care
- Patient-centered care is paramount
- Gathering community feedback is key

Where We're Going Next

- Further stakeholder work
  - We'd love to hear from you!
- Benefit design
  - With input from providers, advocates, and individuals with lived experience
- Potential budget request to Governor's Office

Community Survey

Questions?

Contact Info

Katie TenHulzen, MA
Research + Analysis Team Lead
katie.tenhulzen@state.co.us

Thank you!

Colorado Cancer Plan

Together Again

Colorado Cancer Coalition

Colorado Cancer Plan Evaluation & Feedback: Preliminary Survey Results

Colorado Cancer Symposium
May 2, 2024

WELCOME & INTRODUCTIONS

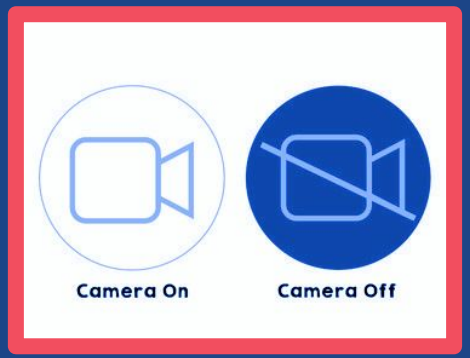
Bing Walker, PhD

Grant Manager,
Colorado Comprehensive Cancer Control Program | CDPHE

Shannon Lawrence, MA

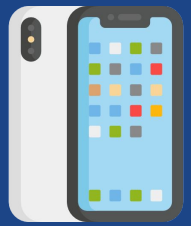
Evaluation Unit Supervisor,
Chronic Disease Epidemiology and Evaluation Program, Center for Health & Environmental Data | CDPHE

NORMS AND EXPECTATIONS



In person:

Interrupt at any time with questions, but take side conversations outside.



Remote:

Keep mic muted, add comments to chat, and feel free to turn off your camera.

Images: Flaticon.com

Agenda

- Overview
- Use of the 2021-2025 Colorado Cancer Plan
- Plan Strengths
- Opportunities for Improvement
- Intentions for Future Use
- How You Can Get Involved

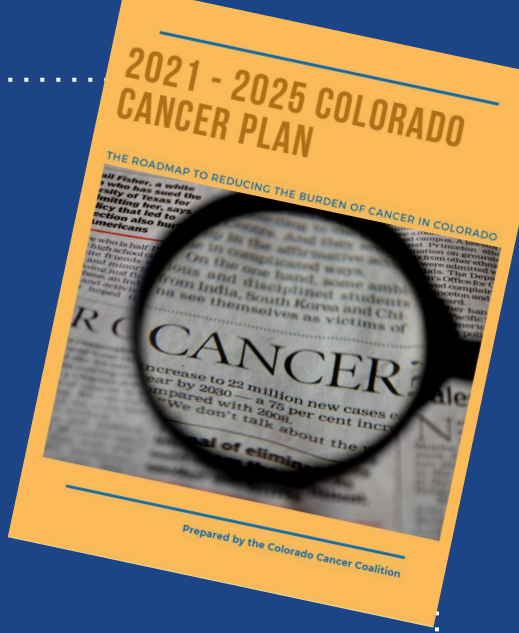
Methods

- Online survey (Qualtrics)
- 17 multiple choice, matrix, open-ended questions
  - Use & future use
  - Assessment of 8 key components (48 indicators)
- Administered February - March 2024
- 101 active Coalition members invited
- 24% response rate (N=24)

Limitations: small sample size

Awareness and Use of the 2021-2025 Colorado Cancer Plan

Among Active Coalition Members



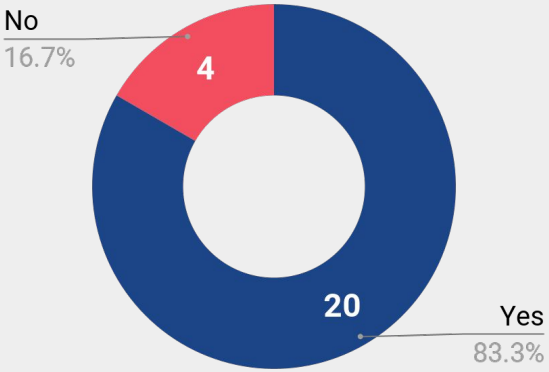
slido

How have you used the 2021-2025 Colorado Cancer Plan? (Select all that apply)

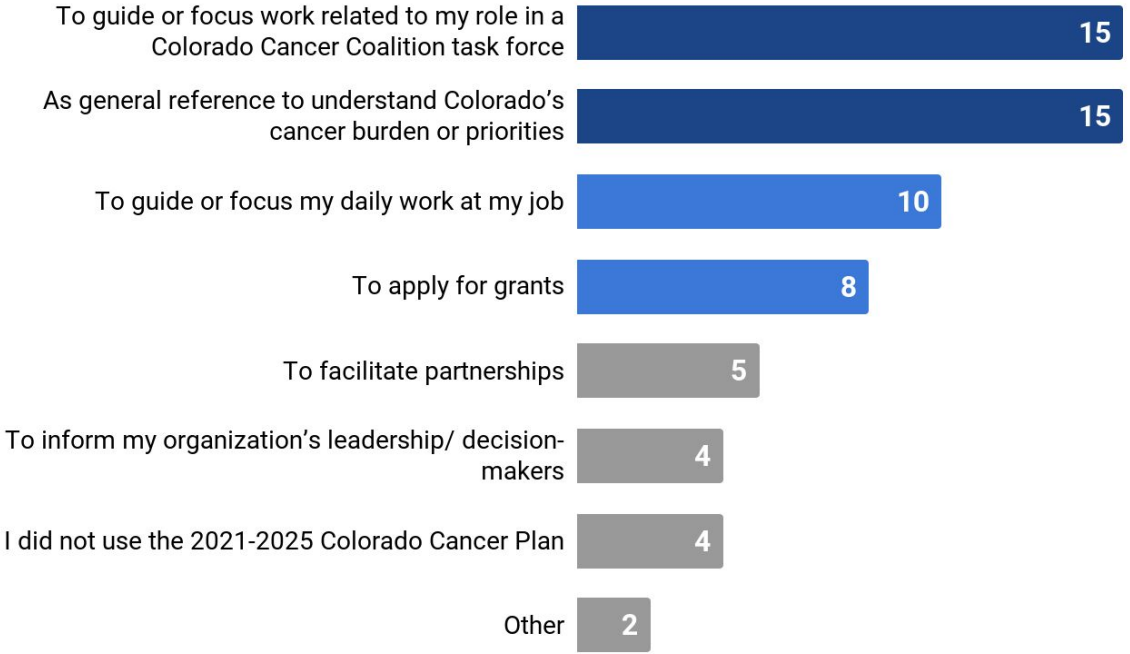
ⓘ Click **Present with Slido** or install our Chrome extension to activate this poll while presenting.

Most respondents were aware of and used the Cancer Plan to guide work on task forces or to understand Colorado's priorities.

Respondents who used the plan

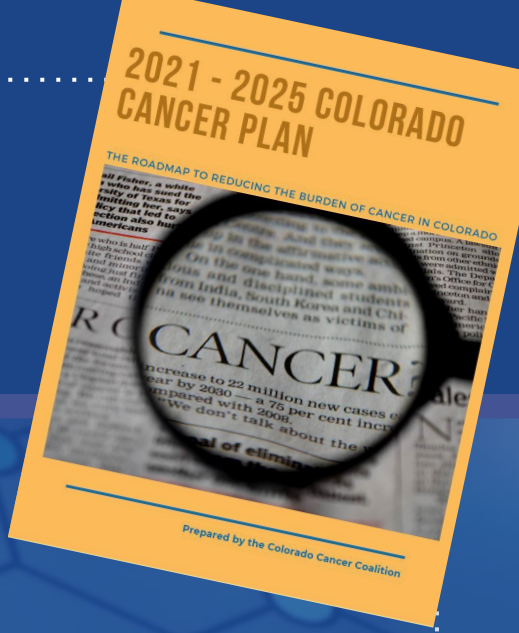


How respondents used the Plan



Assessment of the 2021-2025 Colorado Cancer Plan

Initial Results (N=24)



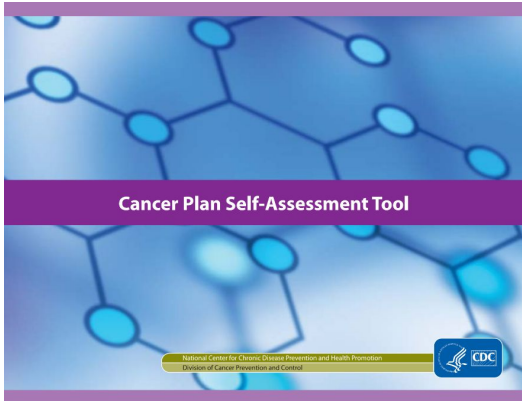
Cancer Plan Self-Assessment Tool

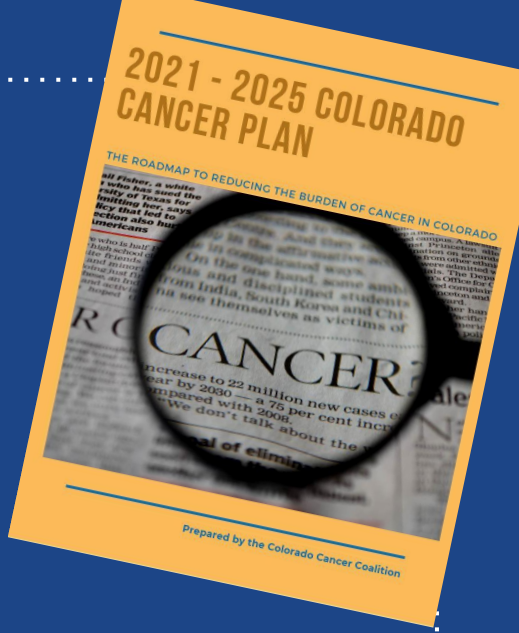
National Center for Chronic Disease Prevention and Health Promotion
Division of Cancer Prevention and Control

Assessment Criteria | Cancer Plan Self Assessment Tool (CDC)

48 indicators across 8 components of a high quality plan:

1. Description of the Process Used to Develop the Plan
2. Goals and Objectives
3. Strategies
4. Stakeholder Involvement
5. Presentation of Data on Disease Burden
6. Reduction of Cancer Disparities
7. Evaluation
8. Additional Descriptive Items

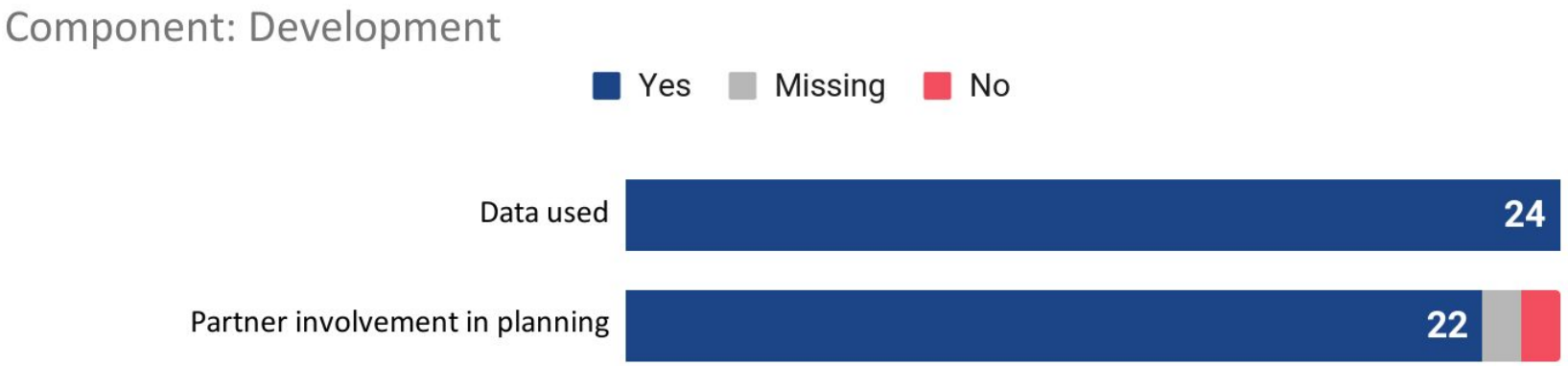




Plan Strengths

Component indicators that are included and well described in the Plan

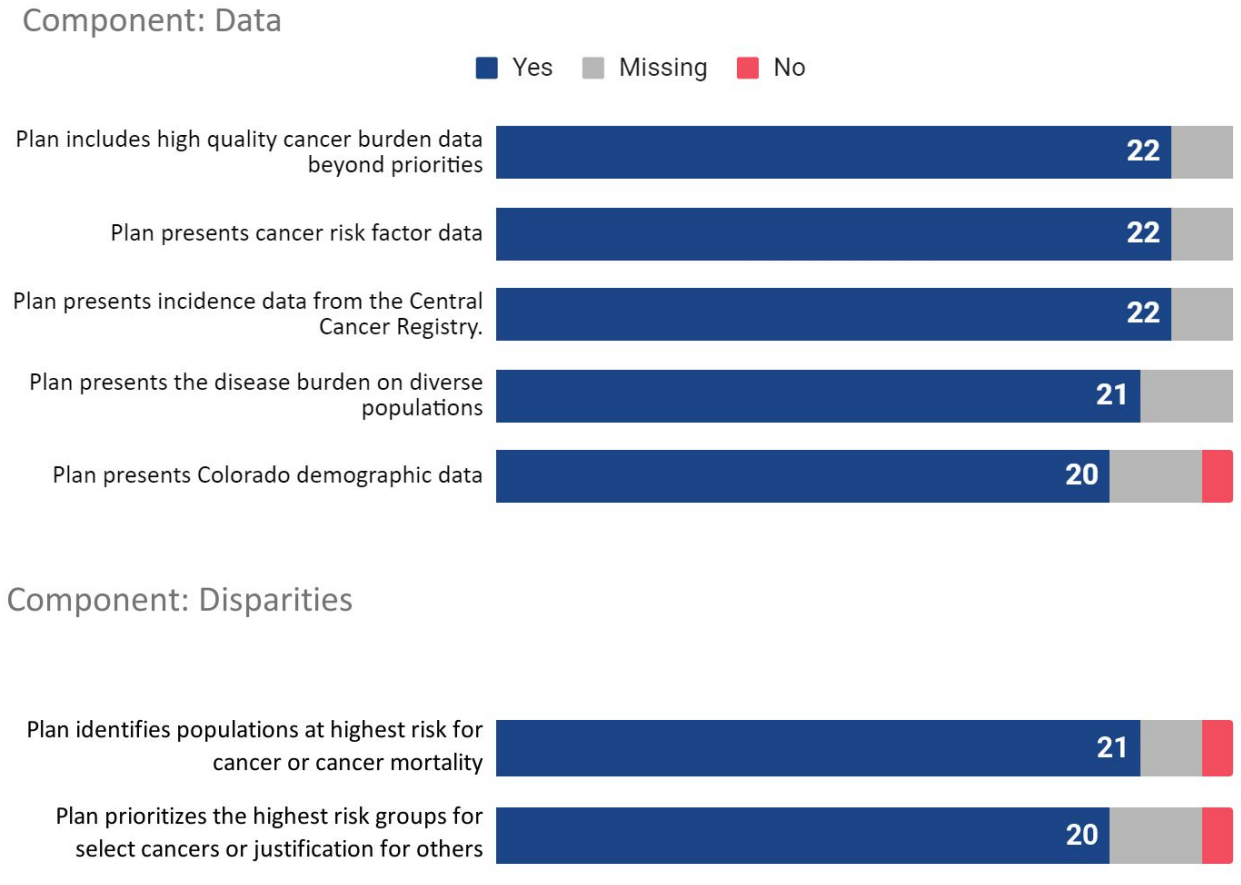
Survey respondents indicated that the plan did a good job describing what **data was used** and **how partners were involved** in the the process of developing the plan.



N=24

Data & Disparities

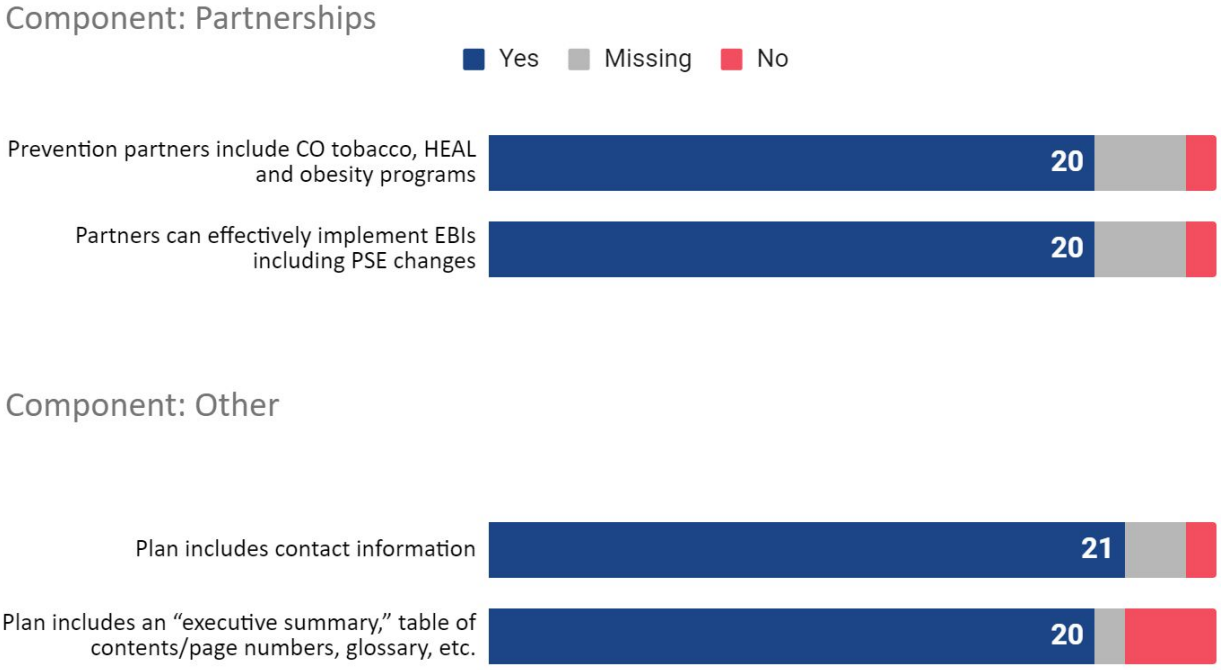
Respondents identified high quality and diverse cancer burden data as well as risk factors and demographic data that informs priorities.



N=24

Partnerships

Respondents identified the diversity and ability of partners to implement the plan as strengths.



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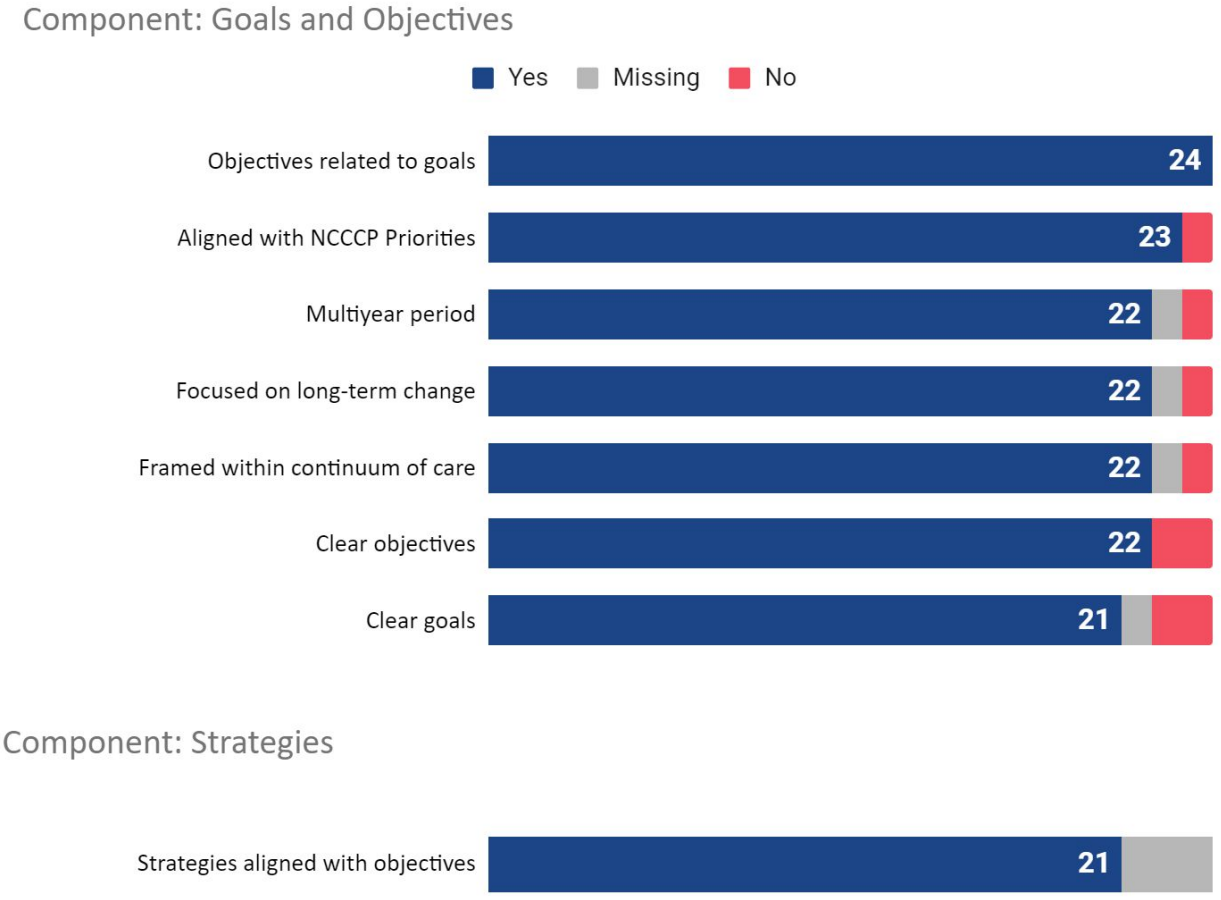
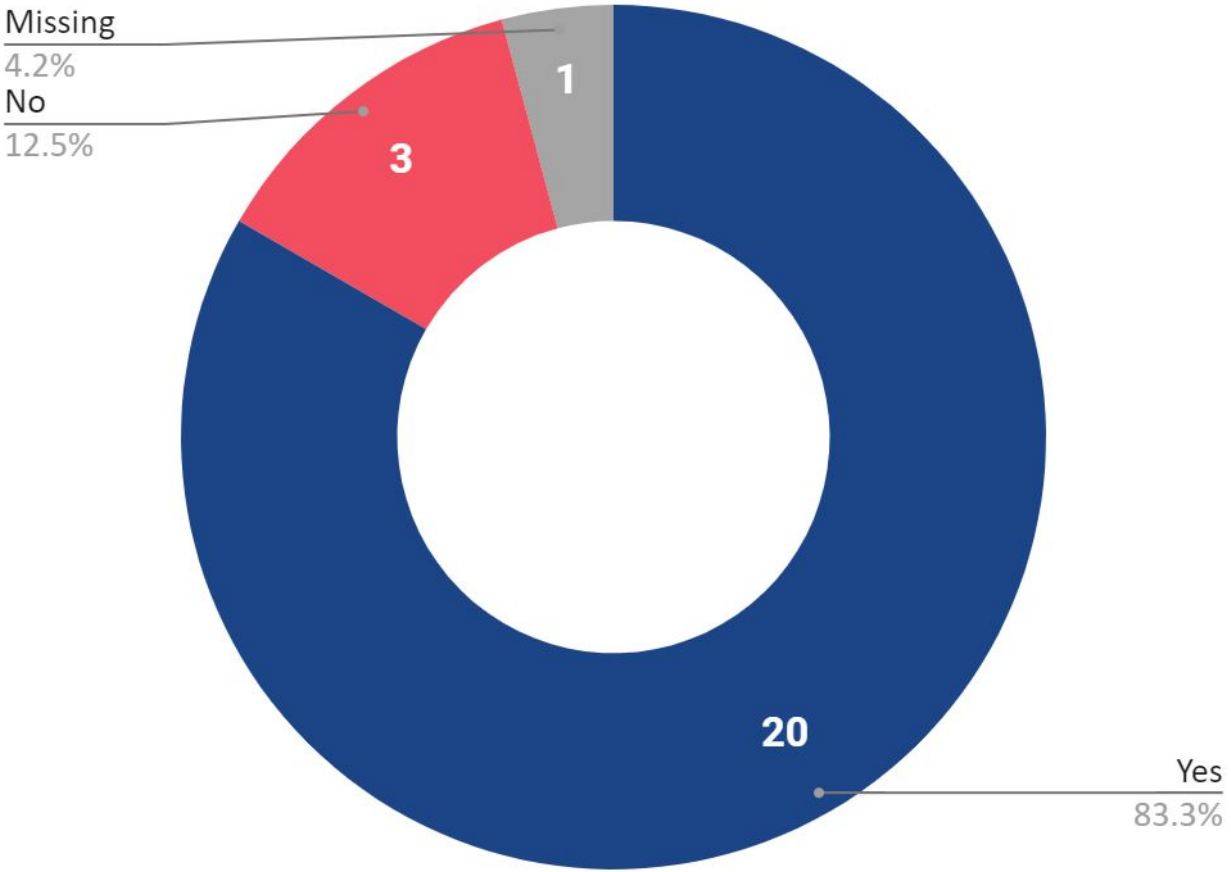
Goals, Objectives & Strategies

Respondents indicated that goals and objectives were clear, aligned, focused on long-term change over multiple years, and framed within the continuum of care. Strategies were aligned with objectives.



N=24

Most respondents perceived the 2021-2025 Colorado Cancer Plan as an actionable framework to reduce the risk, incidence, and mortality of cancer in Colorado.



N=24

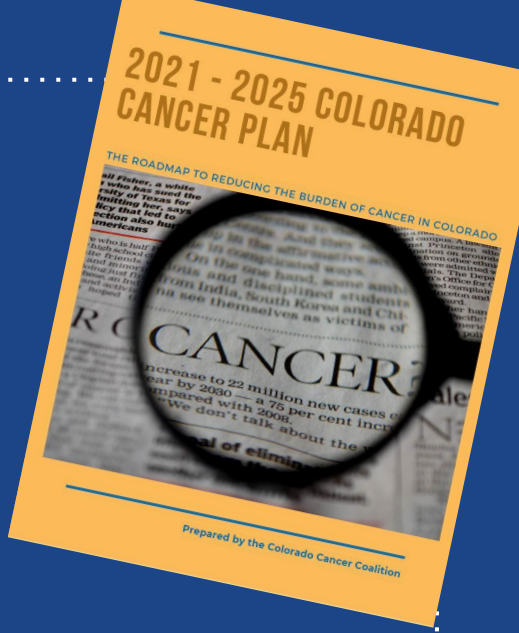
“

Overall, the plan is exemplary, detailed, and inclusive. However, the number of priorities might suggest that nothing is a priority. Given budget constraints, would it be prudent to narrow the focus on impact considerations like equity and the biggest opportunities to improve outcomes?

-Survey comment

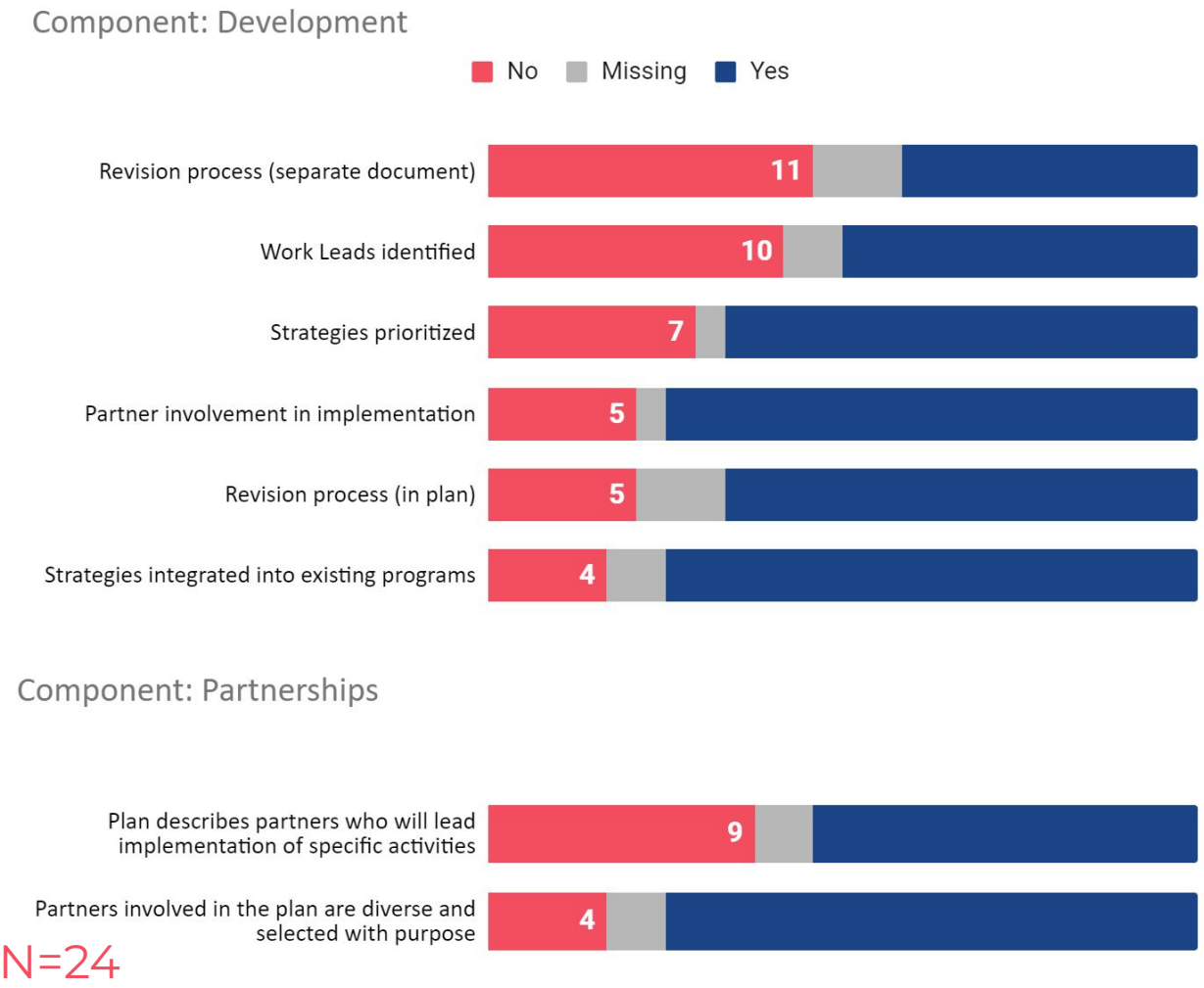
Opportunities for Improving the Plan

Component indicators that could be better included and/or described in the Plan



Development & Partnerships

Respondents identified the need for more transparency overall, and more direct partner involvement in implementation with specific activities and designated leads.



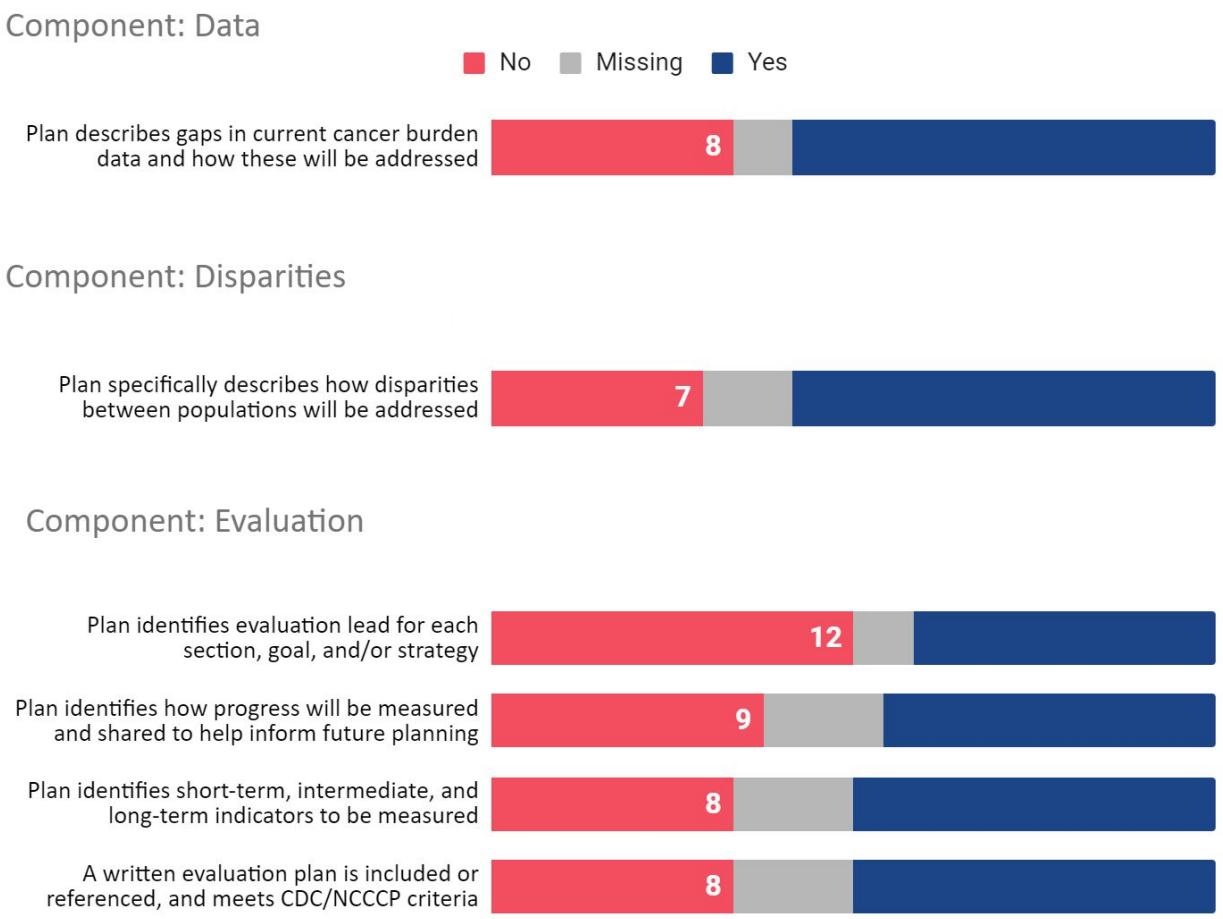
“

It's a little bit ambiguous, though. Task Forces are listed and contributors to the plan. But it's unclear who the lead organization is and how they will coordinate implementation of the plan.

-Survey comment

Data, Disparities & Evaluation

Respondents identified the need for addressing gaps in the cancer burden and how disparities will be addressed. Purposeful evaluation is also needed.



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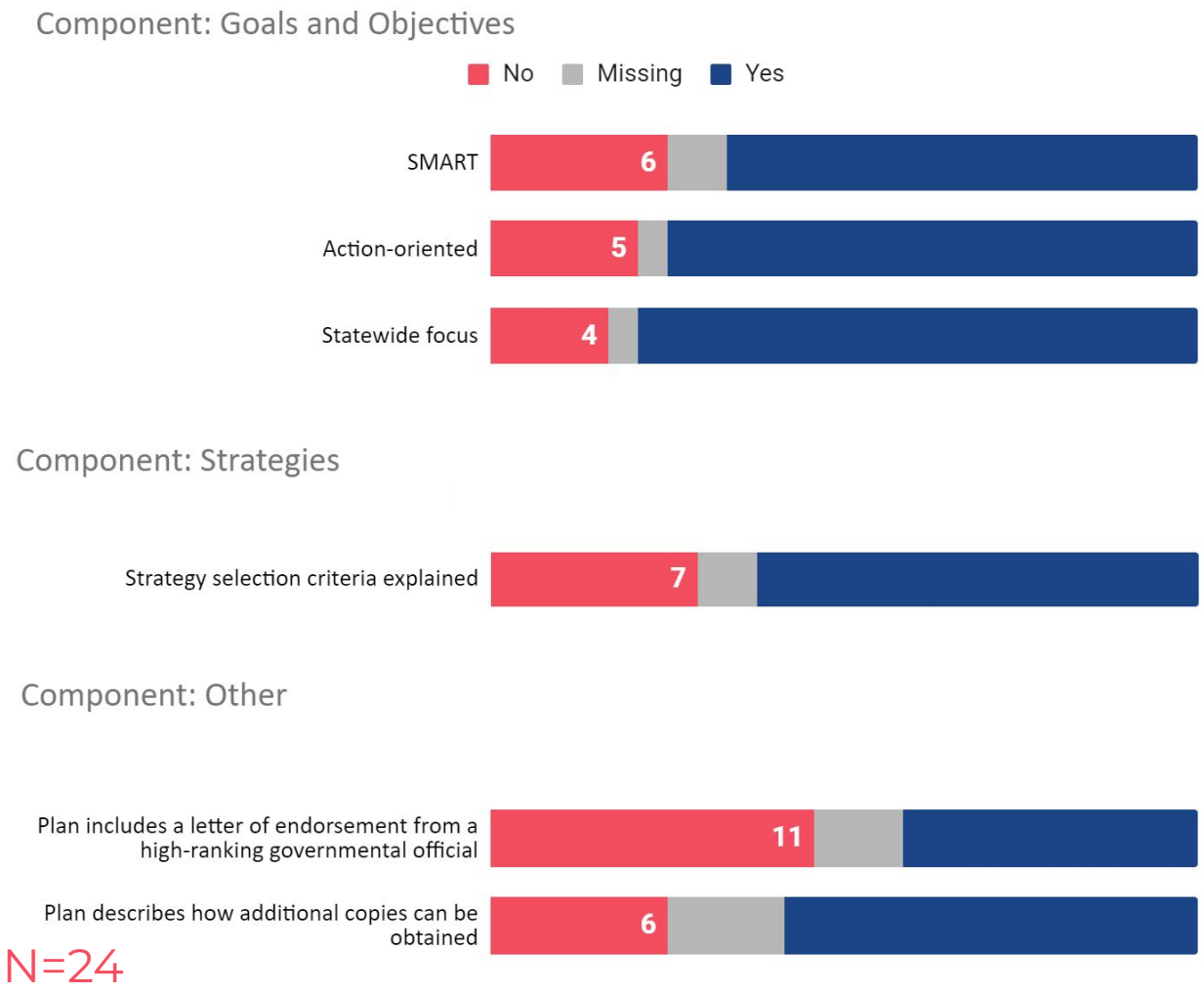
“

Need to address equity in the next plan. Have focus groups in other languages and represent the community in greater capacity not just the providers and professionals.

-Survey comment

Goals, Objectives, Strategies & More

Respondents identified a need for more clarity on how strategies are selected, and improvements in making goals and objectives SMART, action-oriented, and focused on the entire state.

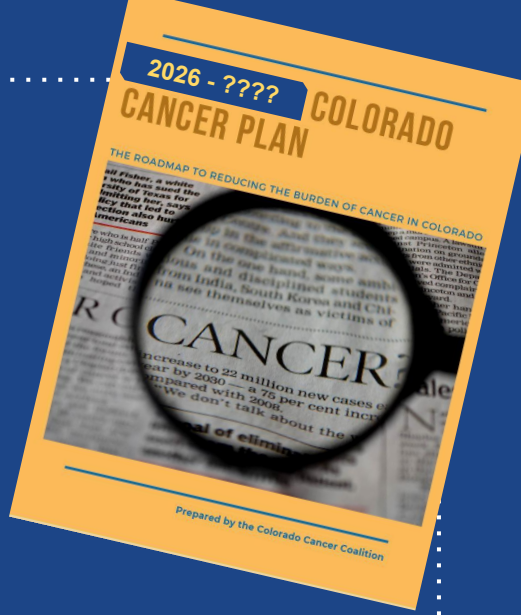


> The plan is vast with no real direction in who should be doing what. It would be helpful, instead of listing everything one can do to reach "X" goal, to have a paired down plan with measurable goals being carried out by specific organizations or groups of organizations that are geared to support the populations that need it most to better close gaps in prevention, screening and access to care/support services.

-Survey comment

The Future of the Colorado Cancer Plan

Intended Use and How You Can Get Involved



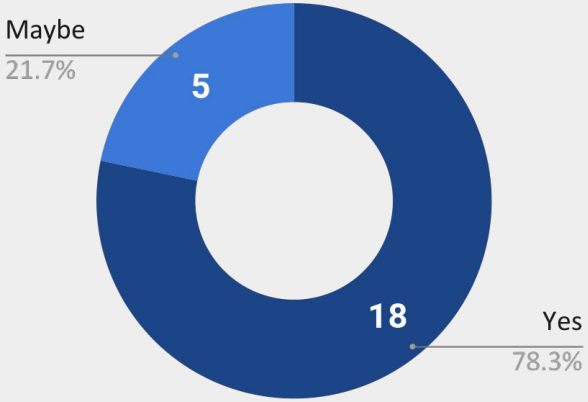
slido

How do you intend to use the next Colorado Cancer Plan? (Select all that apply)

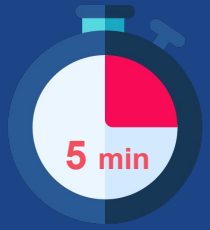
ⓘ Click **Present with Slido** or install our Chrome extension to activate this poll while presenting.

Most respondents intend to use the Cancer Plan to guide their work. Some still plan to use it as a reference.

Intent to use the next plan



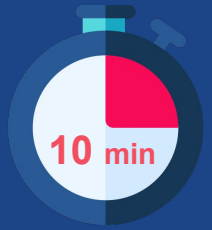
How respondents intend to use the next plan



What would be most helpful to you in the next version of the Colorado Cancer Plan?

1. **Description of the Process Used to Develop the Plan**
2. **Goals** (broad aims) **and Objectives** (measurable outcomes)
3. **Strategies** (specific, discrete EBIs to achieve objectives)
4. **Stakeholder Involvement** (how diverse partners are involved in planning, decision making, implementation, & evaluation of the plan)
5. **Presentation of Data on Disease Burden** (why strategies are important)
6. **Reduction of Cancer Disparities** (process for selecting highest risk populations and strategies)
7. **Evaluation** (determine if resources/process led to outcomes)
8. **Additional Descriptive Items** (characteristics that will increase use)

Individual Brainstorm



What would make the next Cancer Plan a more useful tool in Colorado's cancer prevention and control efforts?

- Group by tables where you are sitting
- Share individual ideas
- Identify the group's Top 3 ideas that could improve the Colorado Cancer Plan
- Select a facilitator to report out to larger group

Group Activity

“

…the plan should include recommendations on how to measure the implementation of strategies and clearly show where those activities are being compiled so that all constituents can see the work that is being done and work together or not duplicate what is already happening.

-Survey comment

Take the survey:
https://bit.ly/assesstheplan

Sign up to help:
https://bit.ly/nextcancerplan

Thank you!

Shannon Lawrence | shannon.lawrence@state.co.us
Bing Walker | bing.walker@state.co.us

COLORADO
Department of Public Health & Environment

Survivorship

Together Again

Colorado Cancer Coalition

Live by Living

Why should you tell cancer to take a hike?

Our Mission

We connect cancer survivors and caregivers with nature and one another through the healing power of walks, hikes, and retreats.

We aim to provide a supportive environment where individuals can find solace, strength, and companionship on their journey.

Our Vision

We envision a world where every cancer survivor and caregiver is embraced by a community of peers who understand and uplift them through the emotional, spiritual, and physical trials of cancer.

We believe in providing opportunities for individuals to enhance their well-being through outdoor activities in natural settings.

Our Values

We meet people where they are.

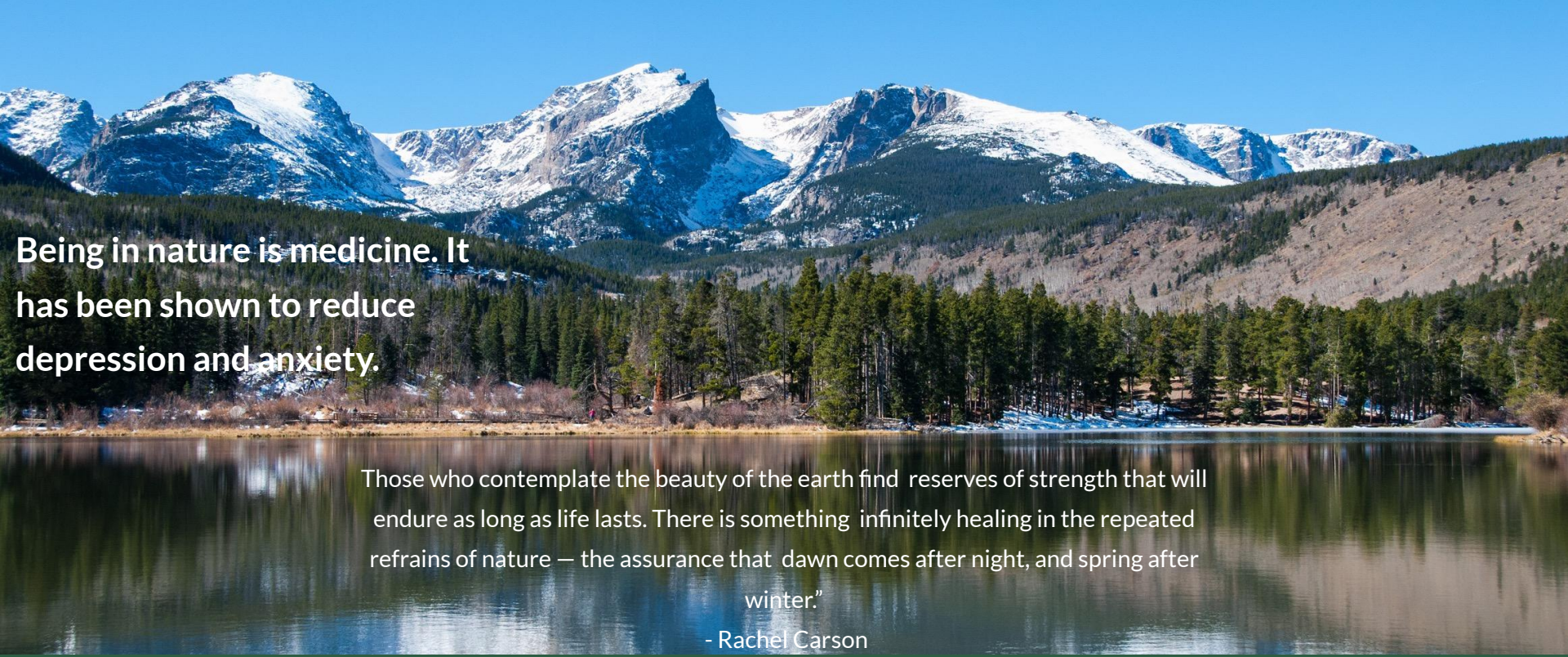
Recognizing the uniqueness of each individual's cancer journey, we customize our support to address their distinct needs and situations.

We act from a place of compassion.

Guided by empathy and understanding, we ensure that everyone feels acknowledged, respected, and upheld in our interactions and support.

We believe in the healing power of nature, community and movement.

We combine the solace of nature, the resilience fostered through shared experiences within a community, and the revitalizing effects of engaging in physical activity to help people heal.



Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. There is something infinitely healing in the repeated refrains of nature — the assurance that dawn comes after night, and spring after winter."

- Rachel Carson

Nature Heals

Exercise reduces cancer survivors' anxiety, depression and fatigue; improves physical functioning; reduces risk of recurrence of some cancers and helps survivors live longer.

Group exercise is fun and facilitates new friendships!

Exercise Strengthens

Exercise Strengthens

- Among breast cancer survivors, the most active have a ~40% lower risk of mortality from cancer and from all causes than the least active
  - Similar results for CRC and prostate cancers
- Significant benefits from 30 minutes/day of moderate activity
  - ACS, NCCN, ACSM all recommend 30-60 minutes per day
  - More benefits from more activity
- Even low amounts of activity yield reduced risk compared to no activity

Exercise Strengthens . . . and more

- “Even a moderate-intensity walking program has been shown to facilitate the transition from patient to survivor, decrease anxiety and depression, improve body image, and increase tolerance for physical activity.” - NCCN

Sharing Supports

How we help foster healing for survivors and caregivers

Mountain Retreats

Retreats are held in the Tenth Mountain Division huts, YMCA conference centers and camps, and private residences.

Unplug from daily life and immerse yourself in the beauty of nature. Make new friends who “get it.” Challenge yourself physically. Gain new strength in facing life challenges.

Walk into Wellness

Walks are easy, paved and flat, but still connect you with nature and others. With our caring volunteers, this fun and engaging series will boost participants' physical activity and spirits, wherever they are in their cancer journey.

Hike to Health

Hikes vary in difficulty and are generally 3 to 6 miles long. This adventurous series will help participants increase aerobic conditioning while having fun with a group of fellow survivors and caregivers.

Cancer to 14K

In this 10-week hiking-based conditioning program, participants train to either climb a 14,000' peak or hike 14,000 steps to a mountain lake.

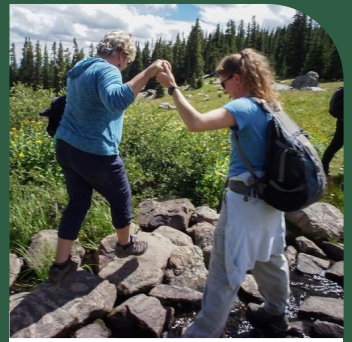
Online Programs

Engage with a community of people who understand cancer's challenges from the comfort of your home. Online offerings include mindfulness, Pilates, and strength training.

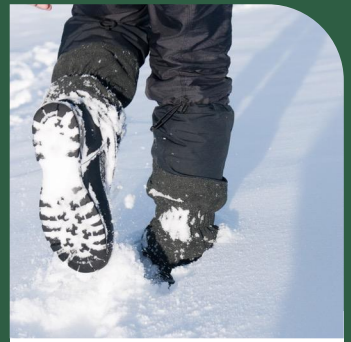
Our reach

- Since 2009:
  - 96 cancer survivor-caregiver retreats with 1500 participants
  - 850 walks and hikes with 5000 participants
  - 10 tracks of Cancer to 14K; 28 survivors on top of Grays Peak
- 2023:
  - LBL met with over 100 care providers to discuss programs, partnerships
  - 137 hikes and walks, 1140 participants
  - Locations: Denver metro, Boulder county, Fort Collins, El Paso County, Summit County, Grand Junction, Durango
  - 9 retreats, 147 participants & volunteers

WHAT OUR PARTICIPANTS ARE SAYING...



“Since you got me there, I now know that I can do it again. Thank you seems inadequate for the receiving of hope, friendship and joy.”



”I feel stronger and physically more able to manage in my life.”

“Live By Living saved my life”

Elevating the partnership: a challenge

- Most LBL referrals come from treatment centers
  - Thanks for your support and belief!
- 315,000 survivors in Colorado
- NABCP accreditation standard 5.15:
  - must use evidence-based guidelines to develop and implement a protocol addressing persistent symptoms, functional issues, and social and behavioral determinants of health for maximizing symptom management, physical function, and social well-being
- COC standard 4.8
  - Must offer 3 survivorship services each year, strive to enhance and add

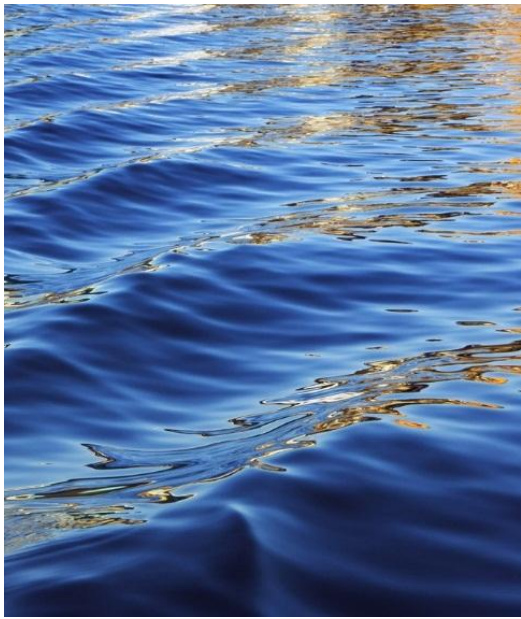
- If the accreditation standard were “increase the percentage of patients who meet the NCCN physical activity recommendations by 25% in 5 years,” what would that look like?

Who Needs More Support?

An Evaluation of Breast Cancer Survivorship Programs and Survivors' Wellbeing

Yuki Asakura Strempek, PhD, RN, ACHPN, ACNS-BC, OCN [1]
Olivia Ficarrotta, BSN, RN, OCN, BHCN [2]
Renee' Herman, MSHA, BSN, RN, CCCTM, CN-BN [1]
Karen Sublett MS, RN, ACNS-BC, AOCNS, OCN [2]
Peggy Thomas, MN, RN, AOCN [2]

1. AdventHealth
2. CommonSpirit Health



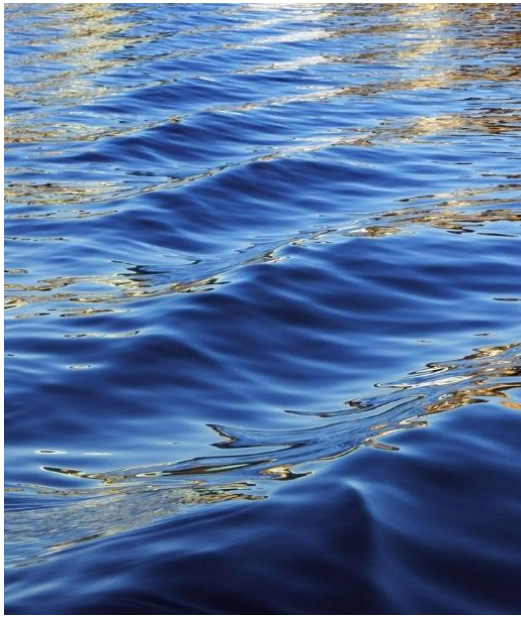
Purpose of the Study

- Determine the Breast Cancer Survivor's Perception of the Survivorship Care Plan and the newly developed Cancer Survivorship program. Determine if demographics or Health Related Quality of Life impacted responses.
  - Collaborated with the survivorship task force to discuss the QI project for 2022
  - Asked for suggestion for the survey and implementation of the project
  - Reached out to the nurse researcher Yuki Asakura and the Oncology educator at Penrose Karen Sublet
  - Formed a small subcommittee to do the research
    - Yuki Asakura (Nurse Scientist)
    - Olivia Ficarrotta (Oncology Nurse Navigator)
    - Renee Herman (Oncology Nurse Navigator)
    - Karen Sublet (Oncology CNS)
    - Peggy Thomas (Oncology Program Manager)
  - Developed Survey
    - Basic Demographics
    - Survey questions on Survivorship Care Plan and Program
    - Fact G
    - Fact B

Survey Design

- Survivor Survey was developed by a study team
- Used FACT–G and FACT-B to measure quality of life
- Data collection period: August 10 to September 6, 2022
- E-mailed the survey to survivors diagnosed Jan 2020 through June of 2021 in the Centura Network
- 177 Breast Cancer survivors started the survey, and 149 completed the survey:

Results



Demographics

Age
- Mean age of participants was 61 years old (SD 11.49)
- 63.8% of participants were 60 years old or older

- Marriage Status
  - Married n=110 (73.8%)
  - Not Married n=21 (14.1%)

Treatment Type (may choose multiple answers)
- 43% had chemotherapy (n=64)
- 67.1% had radiation therapy (n=100)
- 40.3% had hormonal therapy (n=60)
- 6.7% had Immunotherapy (n=10)

	n	%
Stage 0	19	12.8
Stage I	61	40.9
Stage II	33	22.1
Stage III	19	12.8
Stage IV	4	2.7
I don't know	13	8.7
Total	149	100.0

Descriptive Statistics

Work Status	n	
Full Time	76	51.0
Part Time	3	2.0
Retired	70	47.0
Total	149	100.0

Hospital Visited	Frequency	Percent
Penrose Hospital	30	20.1
St. Anthony Hospital	28	18.8
Longmont United Hospital	21	14.1
Littleton Adventist Hospital	18	12.1
St. Mary Corwin Hospital	14	9.4
Parker Adventist Hospital	11	7.4
St. Francis Hospital	11	7.4
Porter Adventist Hospital	4	2.7
Other/non-accredited (including Avista Adventist Hospital and St. Anthony North Hospital)	12	8.1
Total	149	100.0

Navigator and Genetic Counselor Referrals

Oncology Nurse Navigator

- 85.9% of participants answered **YES** that they talked/saw an Oncology Nurse Navigator

Genetic testing Counseling

- 72.2% were referred to genetic testing/counseling
- 90.1% of these referred to genetic testing received genetic testing (n=103)

Survivorship Care Plan

Did you receive a survivorship care plan (also called an oncology treatment summary) at the completion of your treatment(s)?		%
Yes	42	28.2
No	50	33.6
Not Sure	57	38.3

- 68% of the survivors who stated that they received one answered that they were helpful or very helpful (n=30)
- Only 1 person found the care plan not helpful- when asked to elaborate they stated the reason was because they are a retired RN and already knew the information

Survivorship Newsletter and Support Programs

- 18.8% of participants answered yes that they did receive the Cancer Survivorship newsletter (Survivorship Times) (n=28)
- 38.9 % of participants answered yes that they did receive information on Cancer survivorship programs/classes (n=58)

How did you hear about the cancer survivorship program/classes? (may be multiple answers/person)	n	%
Printed flyer	10	6.7
Email	30	20.1
Nurse Navigator	19	12.8
Social Worker	5	3.4
At the Cancer Center	12	8.1
Website/Facebook/Twitter/Newspaper	0	0

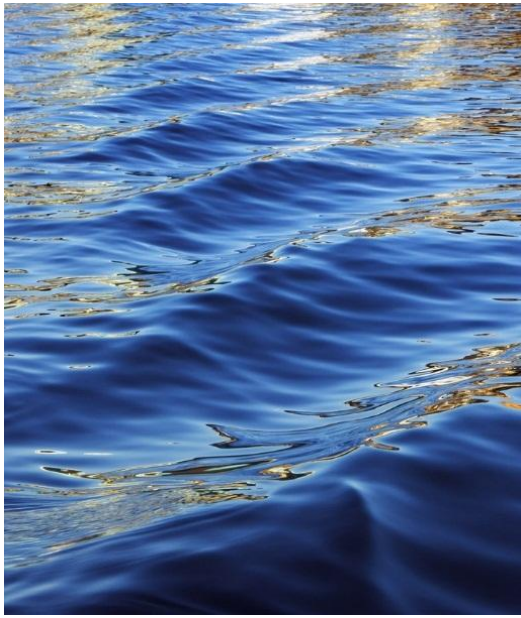
Support Programs

Have you participated in any of the cancer survivorship programs?		%	Valid %
Yes	8	5.4	13.8
No	50	33.6	86.2
Total # answered	58	38.9	100.0
Missing	91	61.1	
	149	100.0	

87% of survivors who participated in the survivorship program answered it was very helpful (75%, n=6) or helpful (12.5%, n=1)

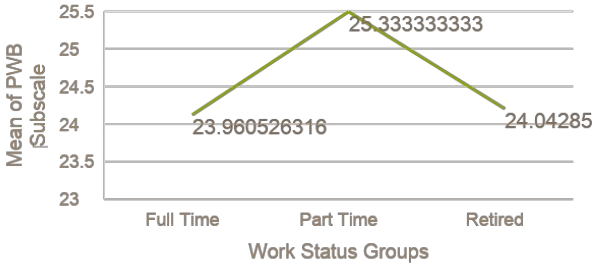
Would you consider participating in the future?	n		Valid %
Yes	86	57.7	61.0
No	55	36.9	39.0
Total # answered	141	94.6	100.0
Missing	8	5.4	
	149	100.0	

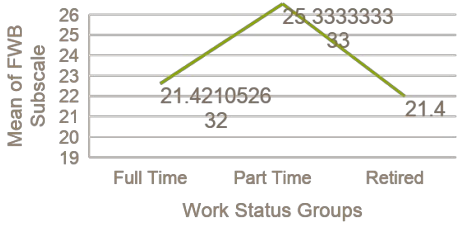
Statistical Results

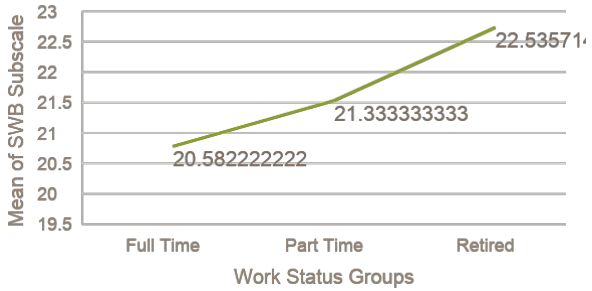


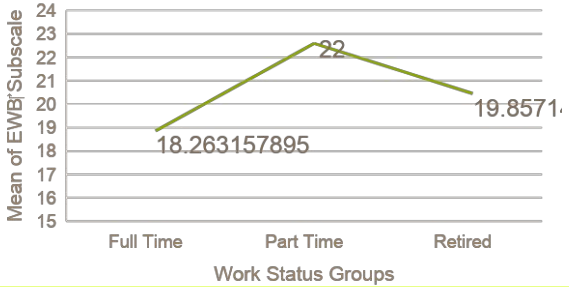
Work Status

- Looked into FACT-B subscales.
- There was no significant differences for PWB, SWB, FWB, Breast cancer subscale, FACT-B trial outcome, FACT-G or FACT-B total







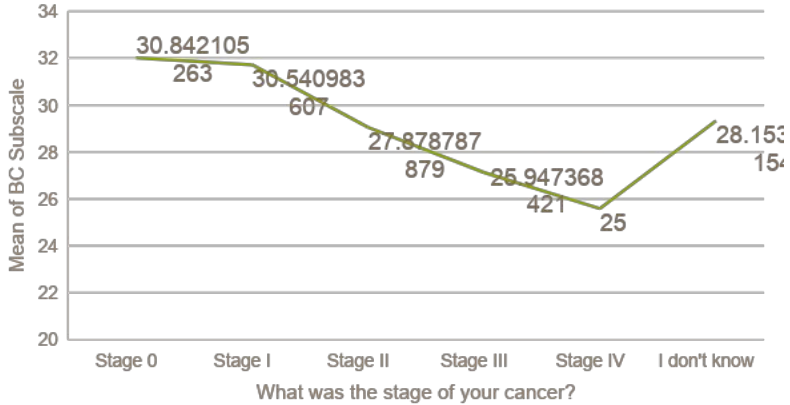


p=.022

Stage of Cancer

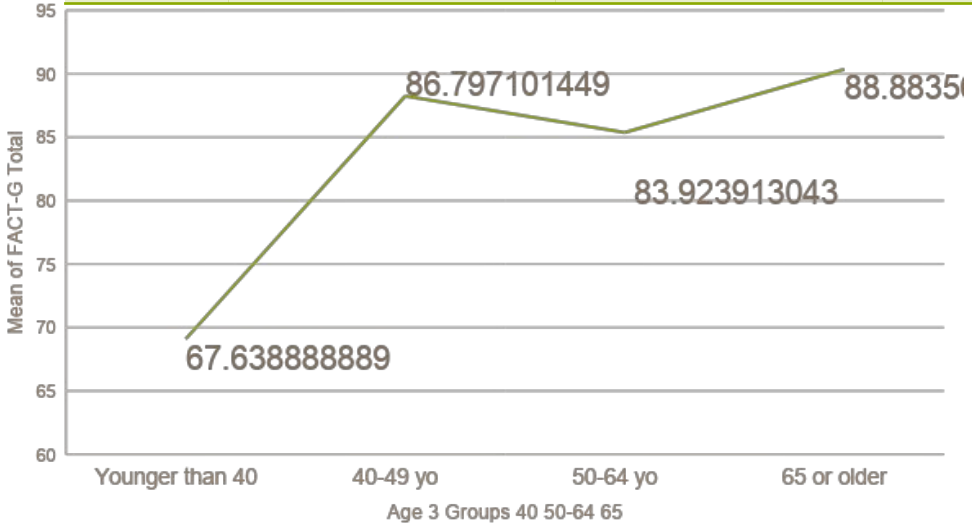
	Stage o	Stage I	Stage II	Stage III	Stage IV	I don't know	Total
n	19	61	33	19	4	13	149

- Only statistically significant results were found between Stage o and Stage III (p=.023) and Stage I and III (p=.009) in Breast Cancer Subscale.
- Stage IV did not show a statistically significant results because of the small sample size.



FACT-G Total

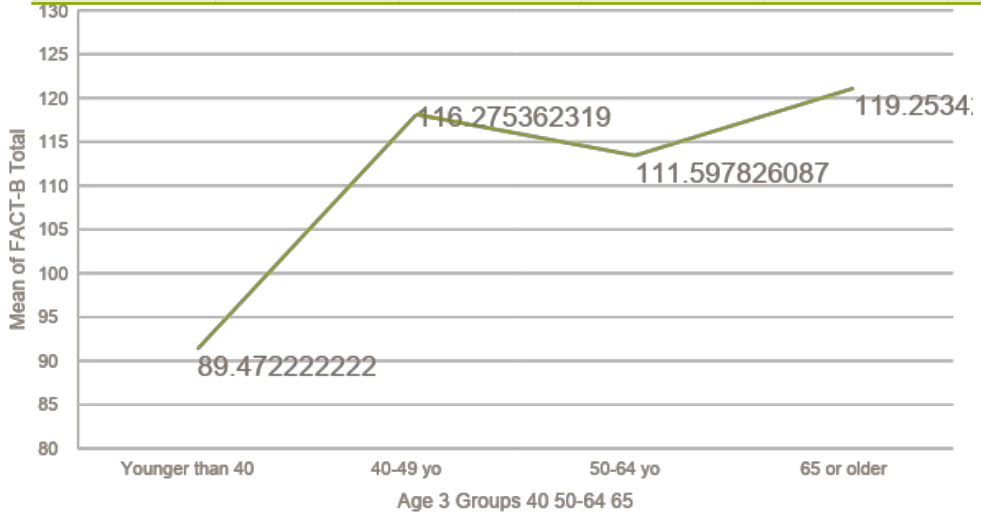
	Younger than 40	40-49 yo	50-64 yo	65 or older	Total
n	6	23	46	73	148
Mean	67.64	86.80	83.92	88.88	86.16
SD	22.930	14.208	17.295	14.495	16.183



- Statistically significant
- p= .011

FACT-B Total

	Younger than 40	40-49 yo	50-64 yo	65 or older	Total
n	6	23	46	73	148
Mean	89.47	116.28	111.60	119.25	115.20
SD	31.545	18.908	22.807	19.434	21.702



- Statistically significant
- p=.006

Summary Findings (Descriptive Statistics)

- 71.9 % of survivors stated that they didn't or were not sure if they received the SCP
- 68% of survivors who received SCP answered it was helpful
- Only 13.8% of survivors answered they have participated in the support programs. However, 61% of survivors answered they would be interested in participating in the programs.

Summary Findings (Inferential Statistics)

- Work Status
  - Part time workers had highest Physical, Functional, and Emotional Well-being
  - Emotional well-being showed statistically significant difference (p=)
  - For social well-being, Retired people had highest scores.
- Stage of Cancer
  - People had more advanced stage cancer had lowest scores for Breast cancer subscale
  - Due to small sample size for people with stage IV cancer, there was no statistically significant results, but there were statistically significant differences between:
    - Stage 0 ($\bar{x}$ =30.84) and III($\bar{x}$=25.95), p=.023
    - Stage I ($\bar{x}$=30.54) and III ($\bar{x}$=25.95), p=.009
- Well-being Differences Among Age Groups
  - Cancer survivors younger than 40-year-old had lowest well-being scores over all
  - The younger survivors showed no statistically significant results on PWB and FWB
  - However, younger survivors showed statistically significantly lower scores on well-being scores for SWB (p=.043), EWB (p=.013), BC Subscale (p=.007), FACT-B Trial Outcome Index (p=.016), FACT-G total (p=.011) and FACT-B total (p=.006)

Implication for the Practice and Recommendations

- Survivors are not aware of support/integrative/survivorship programs. There is needs for making the programs visible and a part of Survivorship Care Plan
  - Currently some programs let people chose if they want to be on the email distribution list, and some navigator programs enroll everyone then patients can choose to opt out
  - **Recommendation**: Changing to navigator programs that enroll everyone, then survivors can choose to opt out
- Survivors with advanced stage cancer had lower well-being in all aspects.
  - Recommendation: Different support for advanced stage cancer is needed as SCP are for curable cancer (stage 0-III)
- Young survivors (<40-year-old) had significantly lower well-being
  - **Recommendation**: Support programs that target this population is needed
- Financial impact with advanced stage cancer needs to be explored in the future study and develop tailored support for the population

- (Tometich DB, Hyland KA, Soliman H, Jim HSL, Oswald L. Living with Metastatic Cancer: A Roadmap for Future Research. Cancers (Basel). 2020 Dec 8;12(12):3684. doi: 10.3390/cancers12123684. PMID: 33302472; PMCID: PMC7763639.

Who Needs More Support?

An Evaluation of Breast Cancer Survivorship Programs and Survivors' Wellbeing

Thank you!

Questions?

Yuki Asakura Strempek, PhD, RN, ACHPN, ACNS-BC, OCN
Olivia Ficarrotta, BSN, RN, OCN
Renee' Herman, MSHA, BSN, RN, CCCTM, CN-BN
Karen Sublett, MS, RN, ACNS-BC, AOCNS, OCN
Peggy Thomas, MN, RN, AOCN

New and Emerging Screening Methods

Together Again

Colorado Cancer Coalition

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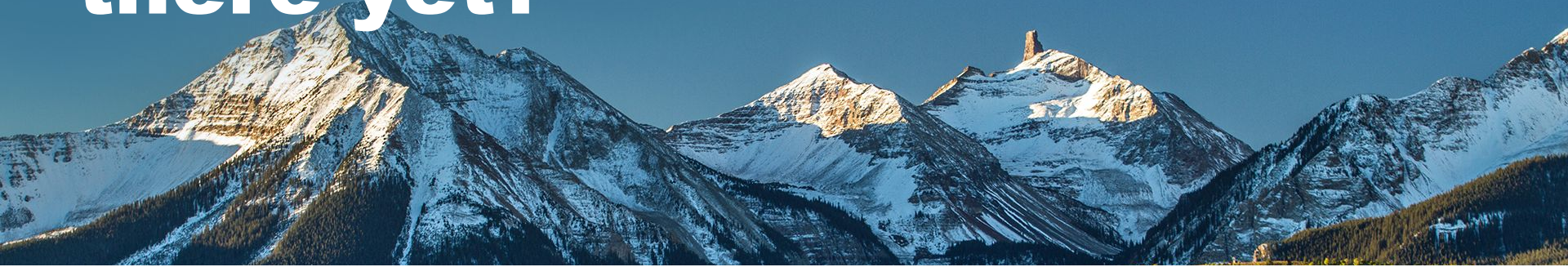
Multi-Cancer Early Detection Blood Tests Are Coming Your Way: Is the supporting evidence there yet?



Colorado Cancer Coalition 2024 Symposium | Debra P. Ritzwoller, PhD | May 2, 2024

Disclosures

- Research support received from the National Cancer Institute of the National Institutes of Health under Award Number 1UG1CA286941-01 (MPIs Cook, Honda, Ritzwoller), “Improving Strategies for Cancer Reduction through Early-detection and ENgagement (I-SCREEN).”
- The content presented here is solely my responsibility and does not represent the official views of the National Institutes of Health, Kaiser Permanente, or the University of Colorado.
- Grant funding from Pfizer awarded to my institution (outside this work).

Meeting Agenda

1. Multi-Cancer Detection (MCDs) assays overview
2. Status of federal approvals
3. Current evidence
4. Practice level considerations
5. NCI-funded I-SCREEN grant overview

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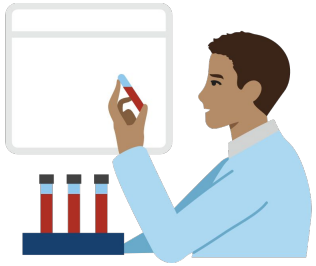
Multi-Cancer Detection (MCD or MCED) assays

MCDs detect circulating fragments of cells shed by tumors in the blood. MCD blood-based assays are being rapidly disseminated for commercial use to test for multiple types of cancers.



- cell-free DNA (ctDNA) analyze methylation patterns
- extracellular vesicle (EVs) look for specific proteins, nucleic acids, lipids and metabolites
- circulating tumor cells (CTCs)
- cell-free nucleic acids (cfNAs)

Current Cancer Detection:

USPSTF recommended screening tests have reduced cancer-related mortality, but are:

- Available for a few types of cancer (make up <25% of US cancer deaths)
- Not available for often more deadly cancers like ovarian and pancreatic

MCD Opportunity:

MCDS can detect cancer cells before clinical signs and symptoms start and could mean more cancer will be found at earlier stages when treatment is more effective.

Concerns about MCD assays for early cancer detection

- Uncertainty of clinical benefit
- Very low sensitivity for stage I cancer detection
- Risks associated with subsequent diagnostic workup
- No evidence when used in clinical practice that tests affect cancer mortality
- Risk of overdiagnosis
- Economic burden for both the patient and the insurer for testing and work-ups
- No evidence of cost-effectiveness

Status of federal approvals

FDA is responsible for MCDs approval

FDA Does Require:

Clinical Utility: “A diagnostic test’s positive impact on patient outcomes– including “stage-shift” and/or reduced morbidity.”

FDA Does Not Require:

Evidence of reduced cancer mortality

No MCDs have FDA approval

FDA has approved several blood-based tumor markers:

- Carcinoembryonic antigen (CEA), alpha-fetoprotein (AFP), prostate specific antigen (PSA), CA 125 (residual epithelial ovarian cancer) and soluble Interleukin-2 (IL-2) receptor

FDA has not yet approved GRAIL’s Galleri® test:

- Received CMS Investigational Device Exemption (IDE) in Oct 2023
- Over 130,000 people have received the prescription only test

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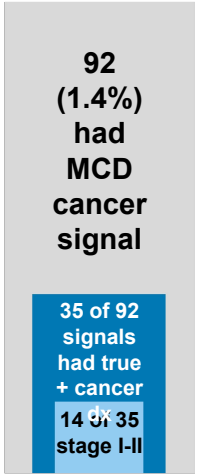
Current evidence

PATHFINDER (evaluated feasibility and cancer outcomes associated with GRAIL Galleri MCED test)	**UK National Heath Service-Galleri**	**Galleri-Medicare REACH**	**China PREVENT OverC MCD trial**
6,661 participants (92% White) **Findings:** • Median time to diagnosis = 57 days • Time to resolution for false positives = 162 days (PPV of 38%, NPV 98.6, Specificity 99.1%, NNS 189)	enrolled 140K participants **Primary outcome:** stage shift an/or reduction of late-stage cancers at dx	aims to enroll ~50,000 **Primary outcome:** stage shift an/or reduction of late-stage cancers at dx	enrolled 12,500 participants **Primary outcome:** stage shift an/or reduction of late-stage cancers at dx



Reference: Schrag D, Beer TM, McDonnell CH 3rd, Nadauld L, Dilaveri CA, Reid R, Marinac CR, Chung KC, Lopatin M, Fung ET, Klein EA. Blood-based tests for multicancer early detection (PATHFINDER): a prospective cohort study. Lancet. 2023 Oct 7;402(10409):1251-1260. doi: 10.1016/S0140-6736(23)01700-2. PMID: 37805216; PMCID: PMC11027492.

Current evidence

PATHFINDER Results cont'd

Extent of diagnostic testing in participants with cancer signal detected (n=90)

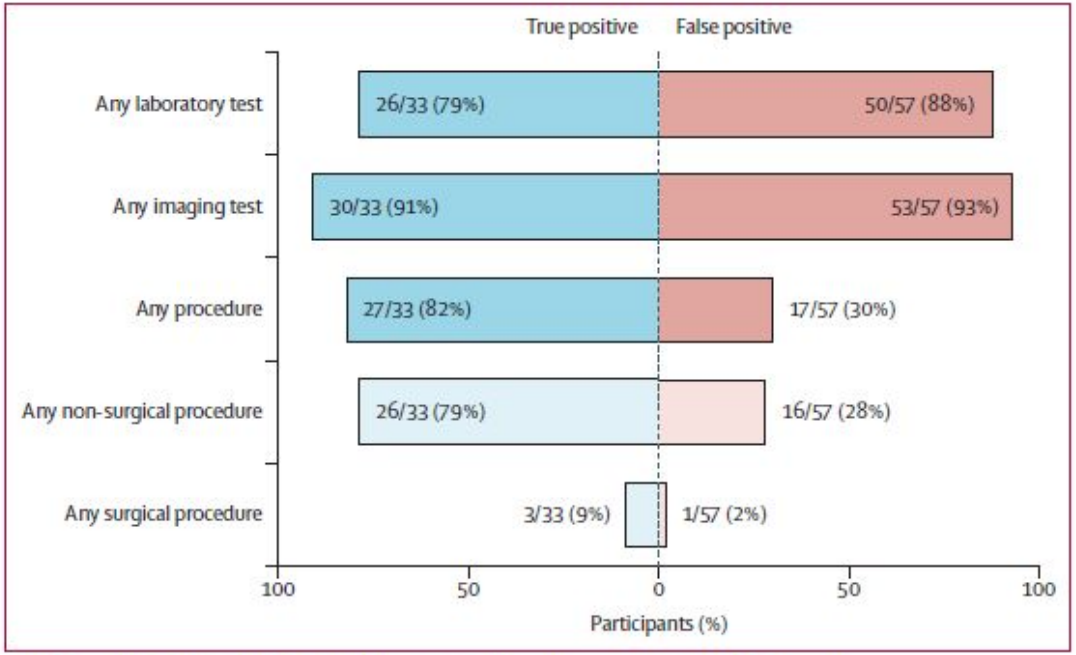


Figure 3: Extent of diagnostic testing in participants with cancer signal detected (n=90)

Reference: Schrag D, Beer TM, McDonnell CH 3rd, Nadauld L, Dilaveri CA, Reid R, Marinac CR, Chung KC, Lopatin M, Fung ET, Klein EA. Blood-based tests for multicancer early detection (PATHFINDER): a prospective cohort study. Lancet. 2023 Oct 7;402(10409):1251-1260. doi: 10.1016/S0140-6736(23)01700-2. PMID: 37805216; PMCID: PMC11027492.

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Practice level considerations

Patients and employer groups are already asking for these tests

Coverage/Billing for test

Positive screen diagnostic assessment

- Should the diagnostic pathway or workflow be consistent with other cancer screening tests?
- Who is responsible for overseeing – PCP or Oncology?
- Insurance coverage/cost for positive screen work-ups

Follow-up time and surveillance protocols

Should standard USPSTF recommended cancer screenings continue?

Standardized cancer site specific development may be required

Will it improve or exacerbate exiting disparities in cancer screening?

NCI-funded I-SCREEN grant overview

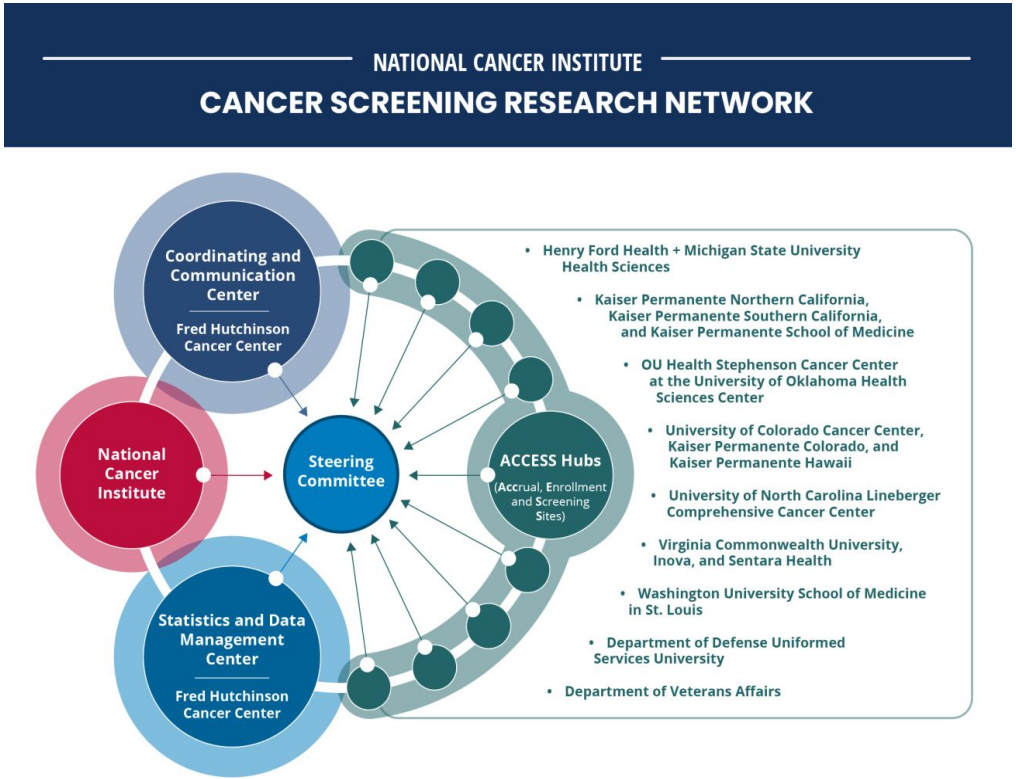
NCI sponsored Cancer Screening Research Network (CSRN)

Purpose of Network

- Conduct multi-center cancer screening trials and studies
- Improve early cancer detection
- Evaluate strategies and approaches for risk-based screening
- Evaluate emerging cancer screening modalities to reduced cancer-related morbidity and mortality

NCI-funded I-SCREEN grant overview

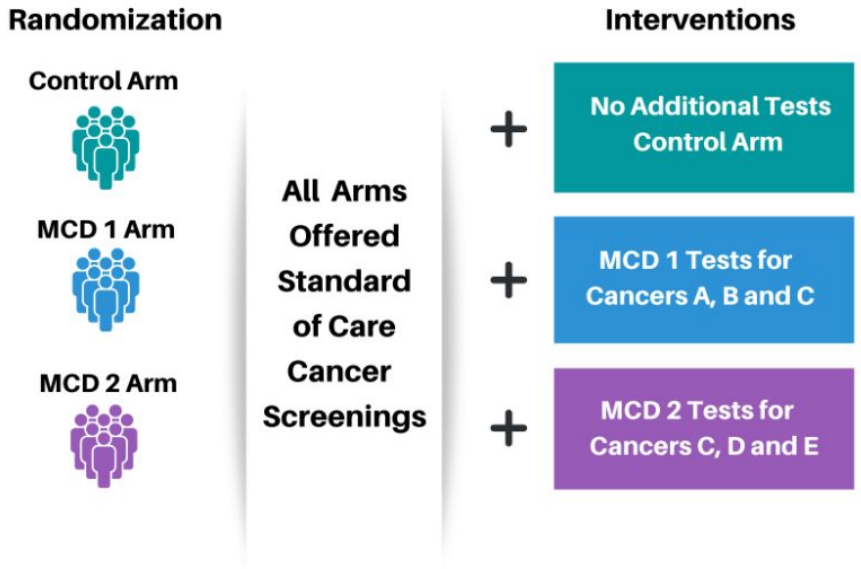
Cancer Screening Research Network (CSRN) Structure



NCI-funded I-SCREEN grant overview

Preliminary Vanguard Study

Proposed launch date: Fall 2024



Objectives of Vanguard Study

- Assess participant willingness for randomization
- Determine adherence to testing and diagnostic follow-up
- Evaluate feasibility of protocol-defined diagnostic workflows
- Determine reliability and timeliness of blood specimen testing and return by MCD companies
- Identify facilitators and barriers to recruitment/retention/compliance of diverse participant groups

NCI-funded I-SCREEN grant overview

Improving Strategies for Cancer Reduction through Early-detection and Engagement (I-SCREEN) NCI CSRN Access Hub

Cancer Center NCI-DESIGNATED COMPREHENSIVE CANCER CENTER	University of Colorado Cancer Center	Linda Cook, MPI	Keefe Memorial Hospital (KMH), Cheyenne Wells, CO Salud Family Health Centers (Salud), FQHCs
KAISER PERMANENTE®	Kaiser Permanente Colorado	Debra Ritzwoller, MPI	Denver/Boulder area
KAISER PERMANENTE®	Kaiser Permanente Hawaii	Stacey Honda, MPI	All Major Islands

NCI-funded I-SCREEN grant overview

I-SCREEN Overview

Health systems:

Variety of care delivery models serving populations that are under-represented in clinical trials and tend to have low cancer screening utilization.

- Represents diverse populations including Hispanics, Asian Americans, Native Hawaiian and Pacific Islanders (NH/PIs), and rural populations.
- Serving individuals via Medicare, Medicaid, commercial, and self-pay and/or individual (ACA-based) exchange insurance plans, as well as uninsured and under-insured individuals.

Research centers:

Strong track records of active participation and successful recruitment in prior multi-site cancer research studies (NCORP, NCCN, NLST, PROSPR).

NCI-funded I-SCREEN grant overview

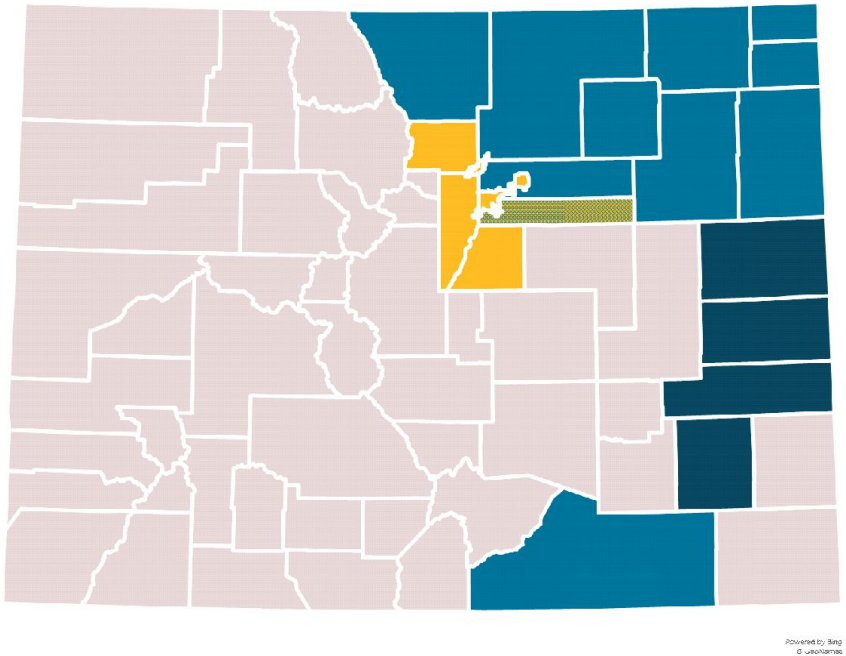
I-SCREEN Focus Populations

	Kaiser Permanente Colorado (N)	Kaiser Permanente Hawaii (N)	Keefe Memorial Hospital, Cheyenne Wells, CO (N)	Salud Family Health Centers, FQHCs (N)	Total (N)
Total	300,586	122,513	935	27,073	451,107
Target Enrollment	1200-1600	~400	~100	~300	2000-2400
Age (years)					
40-49	78,432	34,883	215	9,535	123,065
50-59	78,225	34,200	279	8,146	120,850
60-69	78,494	31,613	297	6,555	116,959
70-80	65,435	21,817	144	2,837	90,233
Sex					
Female	161,169	62,416	431	15,425	239,441
Male	139,307	60,080	504	11,645	211,536
Unknown	110	17	0	3	130
Race and Ethnicity					
American Indian/Alaska Native	2,453	1,542	0	198	4,193
Native Hawaiian/Pacific Islander	989	26,817	0	26	27,832
Hispanic	39,890	4,681	125	16,684	61,380
Non-Hispanic Asian	11,976	43,660	0	468	56,104
Non-Hispanic Black	12,602	1,426	0	392	14,420
Non-Hispanic White	191,723	31,463	776	8,325	232,287
Unknown or Additional Groups	40,953	12,924	34	980	54,891

Recruitment Sites	Target Enrollment
Kaiser Permanente Colorado	1200-1600
Kaiser Permanente Hawaii	~400
Keefe Memorial Hospital, Cheyenne Wells, CO	~100
Salud Family Health Centers, FQHCs	~300
TOTAL	**2000-2400**

NCI-funded I-SCREEN grant overview

I-SCREEN Geography: Colorado



	Total Population Age 40-80	Recruitment Goal
Kaiser Permanente Colorado (KPCO)	300,536	1,200-1,600
Salud Family Health Centers (Salud), FQHCs	27,073	~300
Keefe Memorial Hospital (KMH), Cheyenne Wells, CO	935	~100

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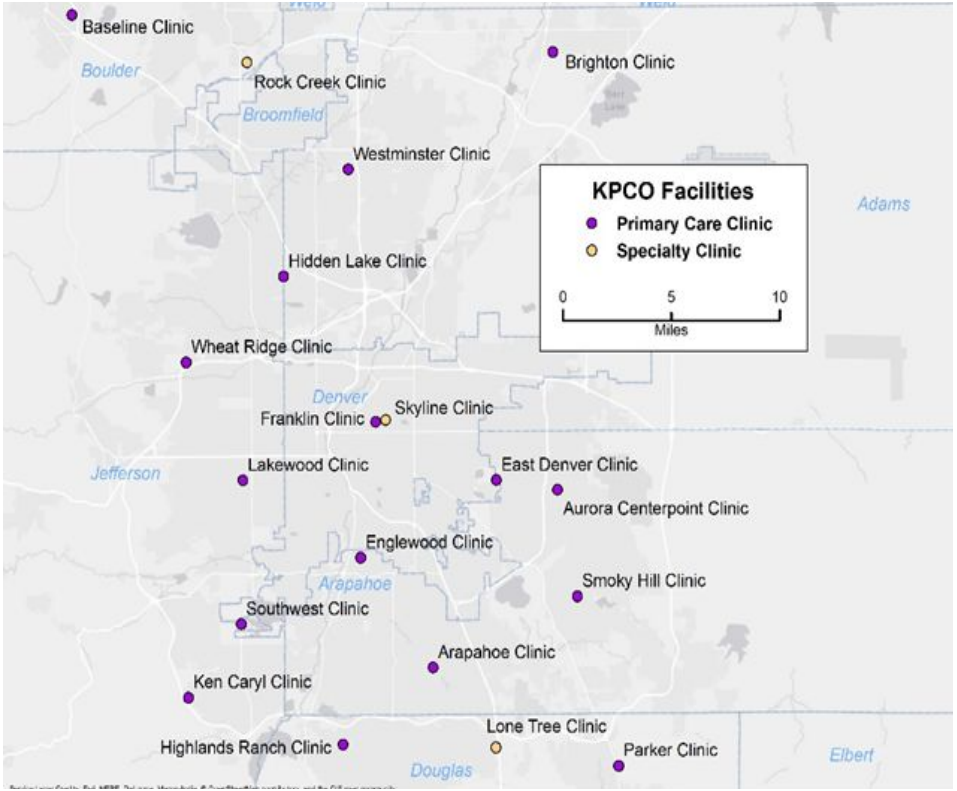
NCI-funded I-SCREEN grant overview

I-SCREEN Geography: KP Colorado

Denver/Boulder Service Area



NCI-funded I-SCREEN grant overview

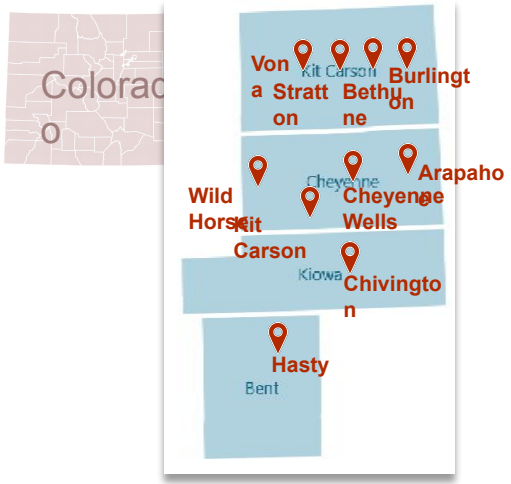
I-SCREEN Geography: Colorado FQHC

Salud Family Health

Clinics catchment area

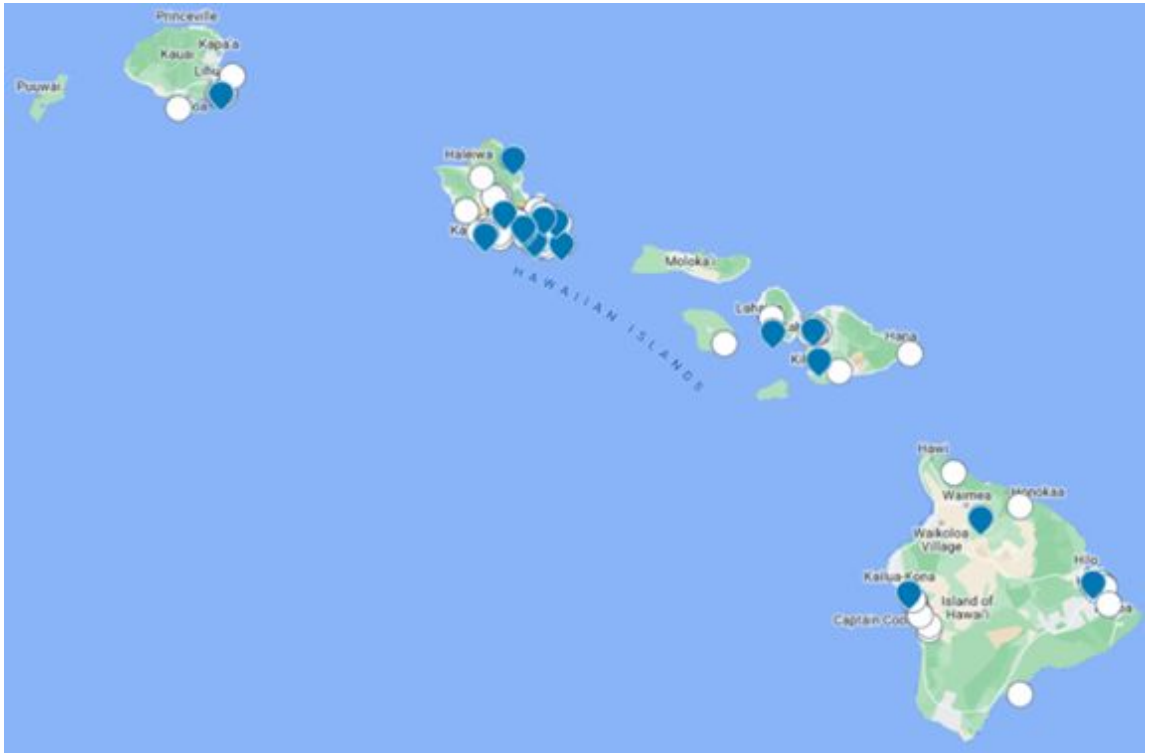
Keefe Health System

Hospital catchment area



NCI-funded I-SCREEN grant overview

I-SCREEN Geography: KP Hawaii



NCI-funded CSRN and I-SCREEN grant overview

CSRN I-SCREEN Potential Outcomes

- Accrual rates, invitation (to participate) acceptance rates
- Compliance with blood draws by arm
- Contamination rates (receipt of non-protocol MCD tests- e.g Galleri®)
- Rates of receiving SOC screening
- Diagnostic procedures performed and complications thereof
- Compliance with diagnostic f/u
- PPV, resolution rate of diagnostic work-up
- Sensitivity (overall, by cancer type, stage), specificity
- Patient-reported outcomes (e.g., anxiety)

NCI-funded CSRN I-SCREEN grant overview

CSRN and I-SCREEN Future….

- The RCT protocol for the Vanguard Trial in under development now
- Recruitment and enrollment in Colorado to start late fall or early 2025
- Test results will be returned to the patient
  - Uncertainty regarding how to optimize patient communication regarding their results
  - Economic and potential psychological burden of false positives
- Uncertainty if community sites can adopt RCT standardized work-ups
- Findings will hopefully inform future standard of care

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Thank you

Questions?

CONTACT US:

Cancer Center

NCI-DESIGNATED COMPREHENSIVE CANCER CENTER

Seismic Shift or a Small Step Forward?

Artificial Intelligence and its Impact on Cancer Care and Research

Christopher Lieu, MD, FASCO
University of Colorado Cancer Center

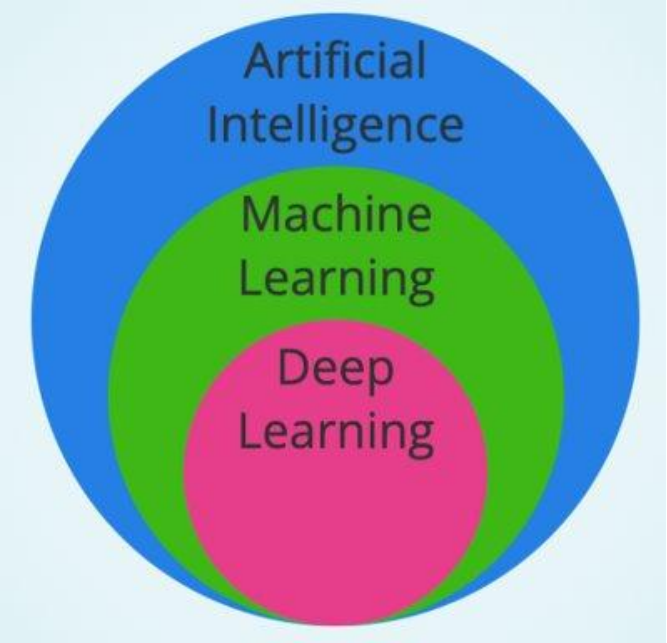
Disclosures

- Christopher Lieu, MD, FASCO
  - Research: Merck, Genentech
  - Consulting: Natera

Topics for Discussion

- What is artificial intelligence?
- Recent advances in artificial intelligence capabilities
- Applications for AI in cancer care and prevention

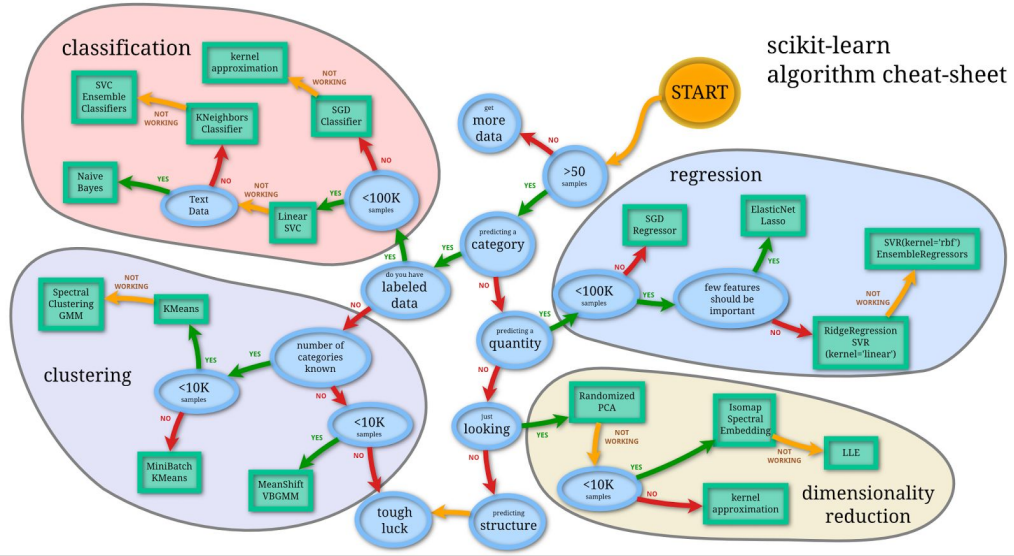
What is Artificial Intelligence (AI)?



The theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

What is Machine Learning (ML)?

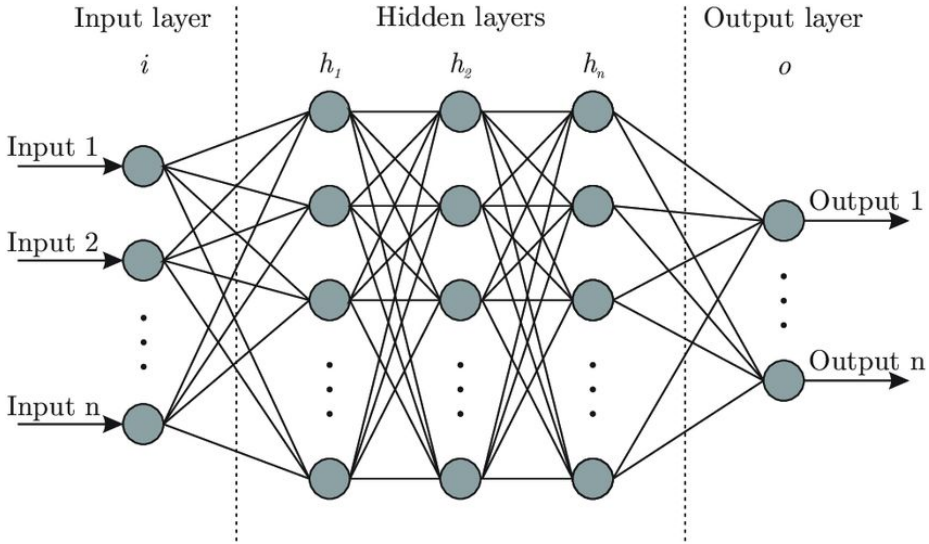
- The study of computer algorithms that improve automatically through experience
- Machine learning is considered a subset of artificial intelligence
- Machine learning systems give the computer the ability to learn without being explicitly programmed rules



What is Deep Learning (DL)?

- Machine learning algorithms that are inspired by the structure and function of the brain

- Deep learning is a subset of machine learning in artificial intelligence that has networks capable of learning unsupervised from data that is often unstructured (i.e., text or images).



What are Large Language Models (LLMs)?

On the Opportunities and Risks of Foundation Models

Rishi Bommasani* Drew A. Hudson Ehsan Adeli Russ Altman Simran Arora
Sydney von Arx Michael S. Bernstein Jeannette Bohg Antoine Bosselut Emma Brunskill
Erik Brynjolfsson Shyamal Buch Dallas Card Rodrigo Castellon Niladri Chatterji
Annie Chen Kathleen Creel Jared Quincy Davis Dorottya Demszky Chris Donahue
Moussa Doumbouya Esin Durmus Stefano Ermon John Etchemendy Kawin Ethayarajh
Li Fei-Fei Chelsea Finn Trevor Gale Lauren Gillespie Karan Goel Noah Goodman
Shelby Grossman Neel Guha Tatsunori Hashimoto Peter Henderson John Hewitt
Daniel E. Ho Jenny Hong Kyle Hsu Jing Huang Thomas Icard Saahil Jain
Dan Jurafsky Pratyusha Kalluri Siddharth Karamcheti Geoff Keeling Fereshte Khani
Omar Khattab Pang Wei Koh Mark Krass Ranjay Krishna Rohith Kuditipudi
Ananya Kumar Faisal Ladhak Mina Lee Tony Lee Jure Leskovec Isabelle Levent
Xiang Lisa Li Xuechen Li Tengyu Ma Ali Malik Christopher D. Manning
Suvir Mirchandani Eric Mitchell Zanele Munyikwa Suraj Nair Avanika Narayan
Deepak Narayanan Ben Newman Allen Nie Juan Carlos Niebles Hamed Nilforoshan
Julian Nyarko Giray Ogut Laurel Orr Isabel Papadimitriou Joon Sung Park Chris Piech
Eva Portelance Christopher Potts Aditi Raghunathan Rob Reich Hongyu Ren
Frieda Rong Yusuf Roohani Camilo Ruiz Jack Ryan Christopher Ré Dorsa Sadigh
Shiori Sagawa Keshav Santhanam Andy Shih Krishnan Srinivasan Alex Tamkin
Rohan Taori Armin W. Thomas Florian Tramèr Rose E. Wang William Wang Bohan Wu
Jiajun Wu Yuhuai Wu Sang Michael Xie Michihiro Yasunaga Jiaxuan You Matei Zaharia
Michael Zhang Tianyi Zhang Xikun Zhang Yuhui Zhang Lucia Zheng Kaitlyn Zhou
Percy Liang*[1]

Center for Research on Foundation Models (CRFM)
Stanford Institute for Human-Centered Artificial Intelligence (HAI)
Stanford University

- LLMs, like GPT-4 (OpenAI) and Bard (Google) are AI models that can understand and synthesize text with human-level performance
- LLMs are a class of "foundation models" that excel in language tasks
- Foundation models are not trained for specific tasks but can be easily adapted to diverse downstream tasks.

https://arxiv.org/abs/2108.07258

Technology

ChatGPT sets record for fastest-growing user base - analyst note

By **Krystal Hu**

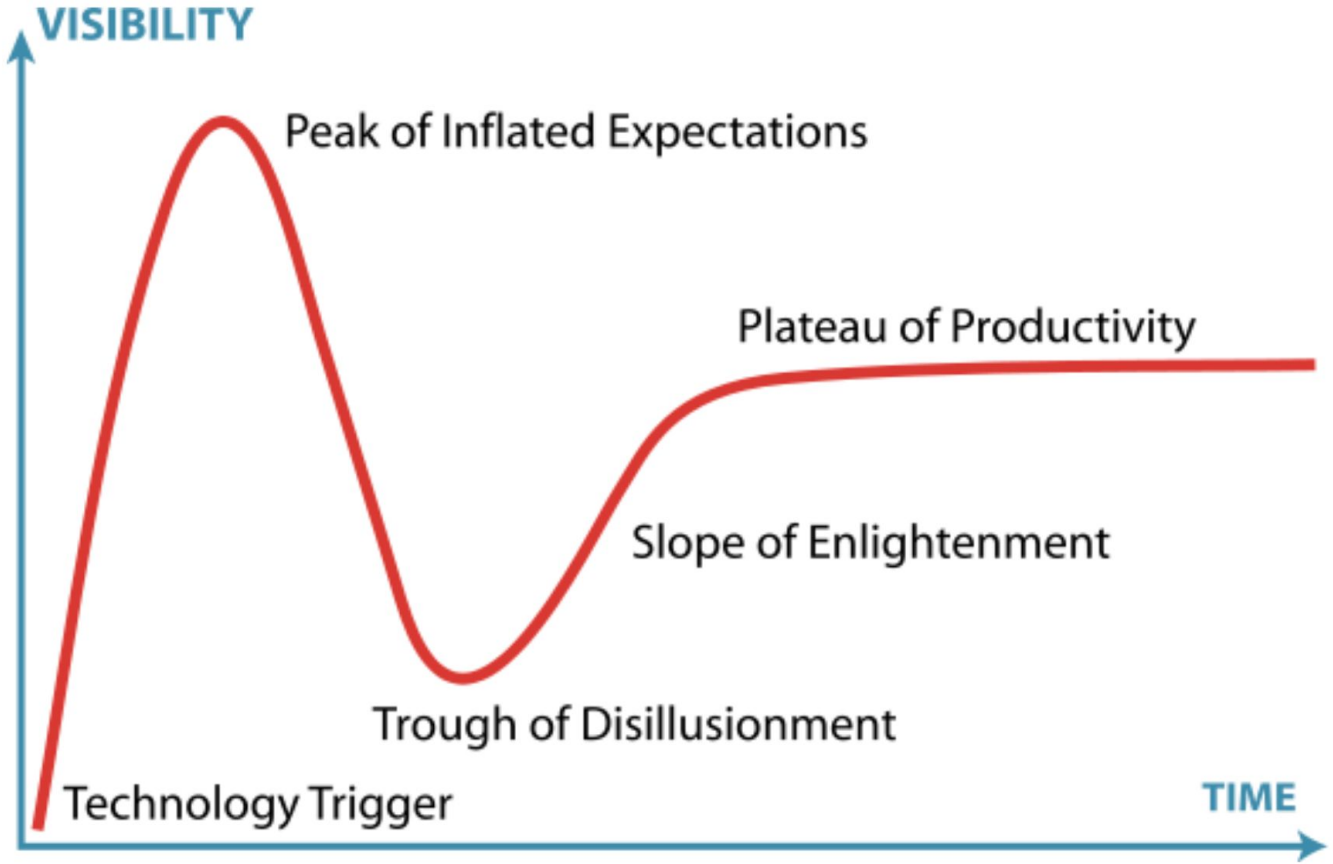
February 2, 2023 10:33 AM EST · Updated 6 months ago

Aa

Feb 1 (Reuters) - ChatGPT, the popular chatbot from OpenAI, is estimated to have reached 100 million monthly active users in January, just two months after launch, making it the fastest-growing consumer application in history, according to a UBS study on Wednesday.

"In 20 years following the internet space, we cannot recall a faster ramp in a consumer internet app," UBS analysts wrote in the note.

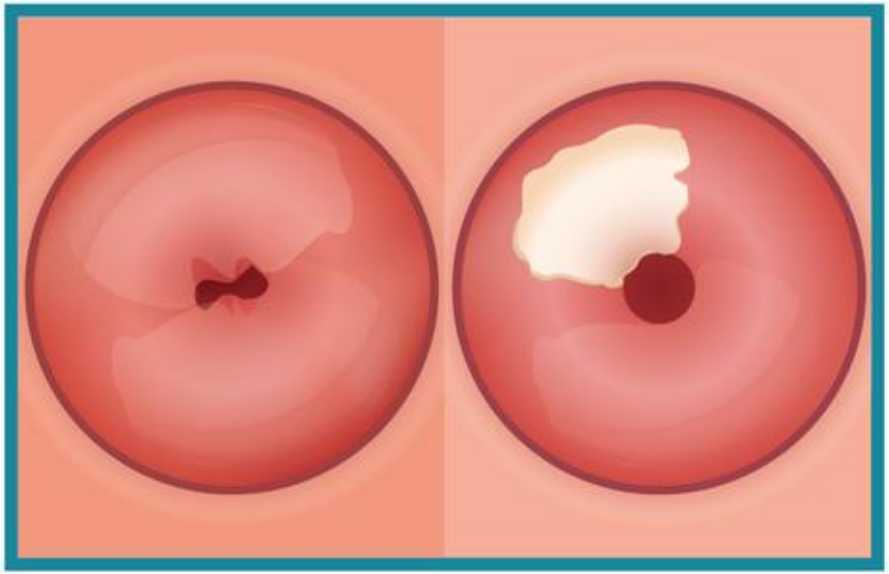
It took TikTok about nine months after its global launch to reach 100 million users and Instagram 2-1/2 years, according to data from Sensor Tower.


VISIBILITY
Peak of Inflated Expectations
Plateau of Productivity
Slope of Enlightenment
Trough of Disillusionment
Technology Trigger
TIME

Artificial Intelligence and Potential Applications in Cancer Care

AI and Cancer Screening

Goal: develop a more accurate and cost-effective screening method that could be used in low- and middle-resource settings – tested this approach on more than 60,000 cervical images



HEALTHY CERVIX (L) AND CERVIX WITH TISSUE CHANGES (IN WHITE) CAUSED BY HPV INFECTION (R)

Visual Appearance: Photographs were taken after each study participant's cervix had been rinsed with vinegar. Vinegar highlights changes to normal tissue caused by HPV infection, including precancer or cancer, by turning the tissue white. A gynecologist evaluated the pictures to identify precancerous or cancerous lesions. The sensitivity (identification of true positives) of this approach was 69%.

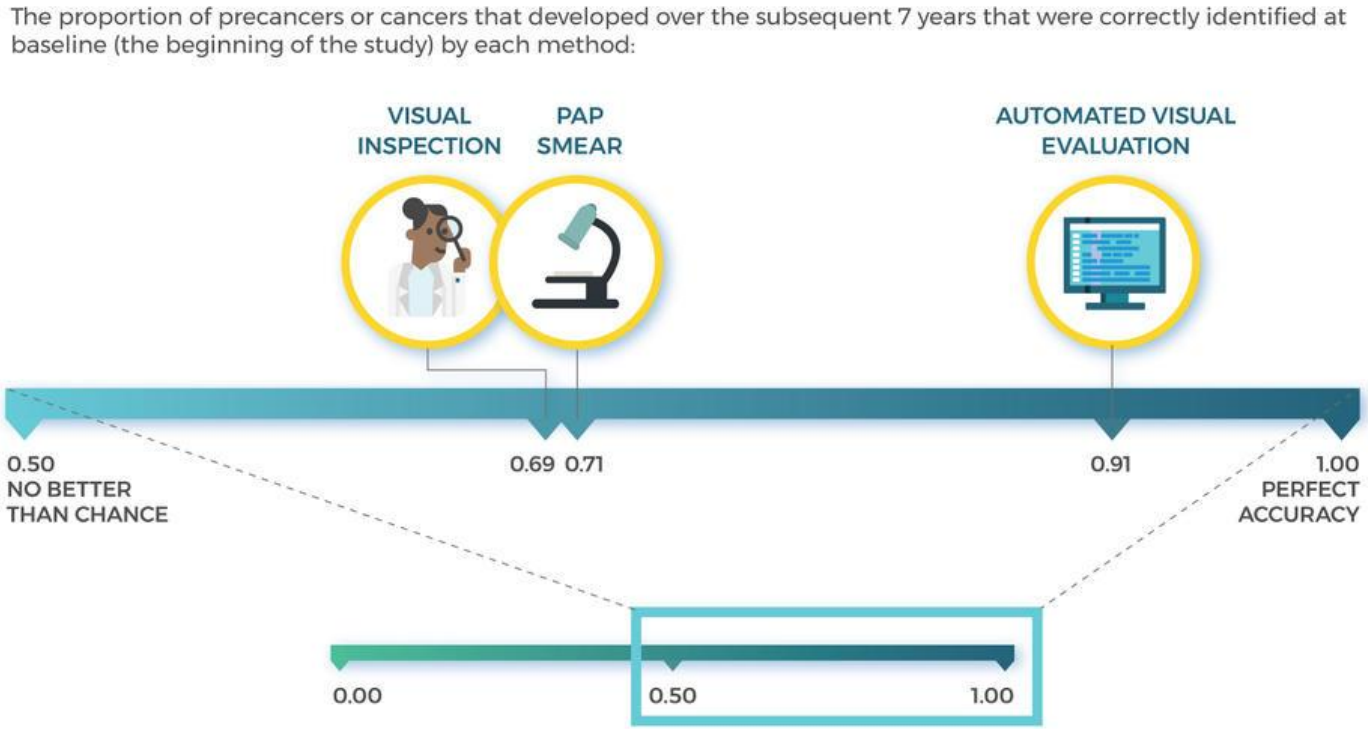
Pap Smear: Cervical cells were collected, affixed to a slide, and analyzed by a pathologist for the presence of precancerous or cancerous cells. The sensitivity of this approach was 71%.

Automated Visual Evaluation: A deep-learning, artificial intelligence approach was used to evaluate digitized images of the cervix in an automated process that predicted the probability that the image represented a case of precancer or cancer. The sensitivity of this approach was 91%.

Hu et al. *J Natl Cancer Inst* 2019.

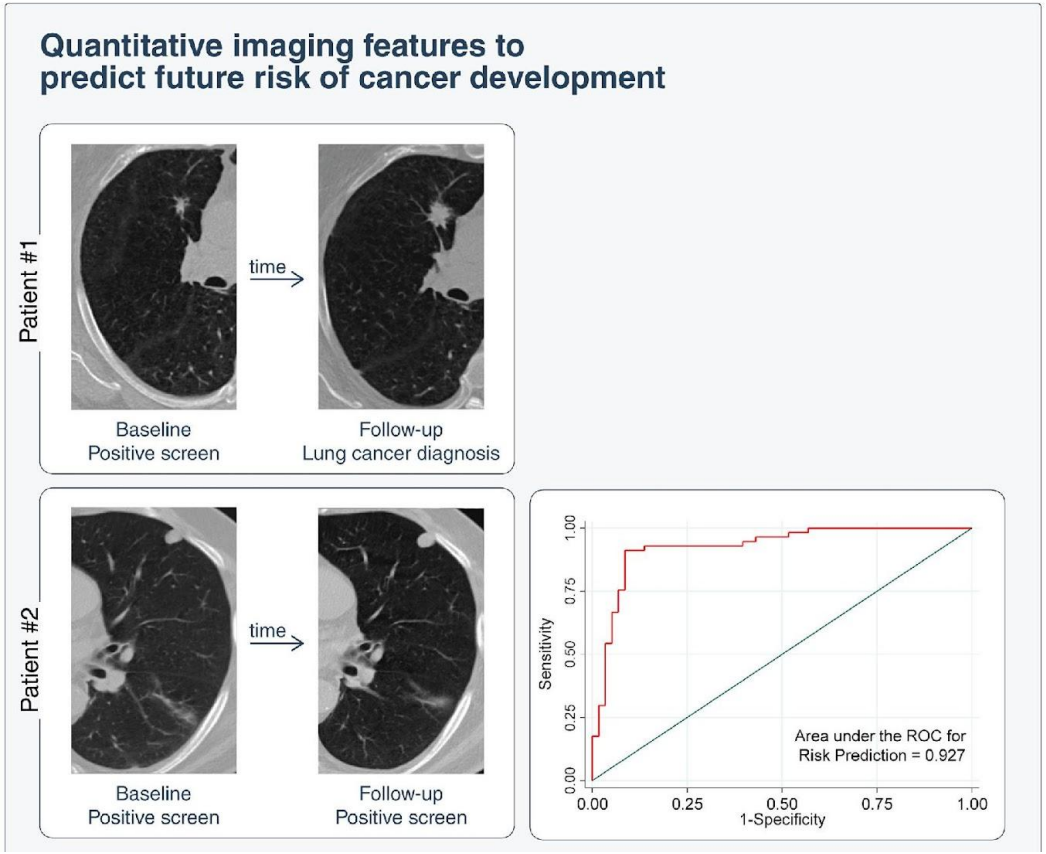
AI and Cancer Screening

AI-Based Approach Was More Accurate than Other Methods



Hu et al. *J Natl Cancer Inst* 2019.

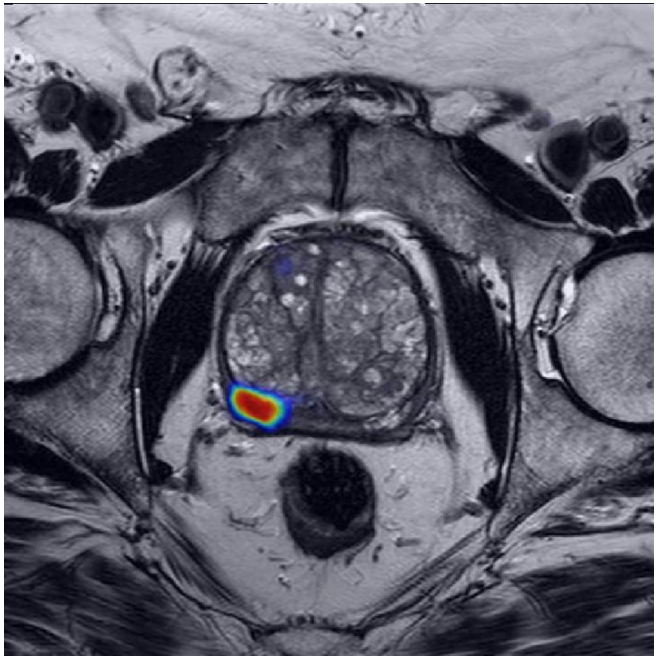
AI and Cancer Development Prediction



Bi et al. *CA* 2029. https://doi.org/10.3322/caac.21552

AI and Cancer Detection and Diagnosis

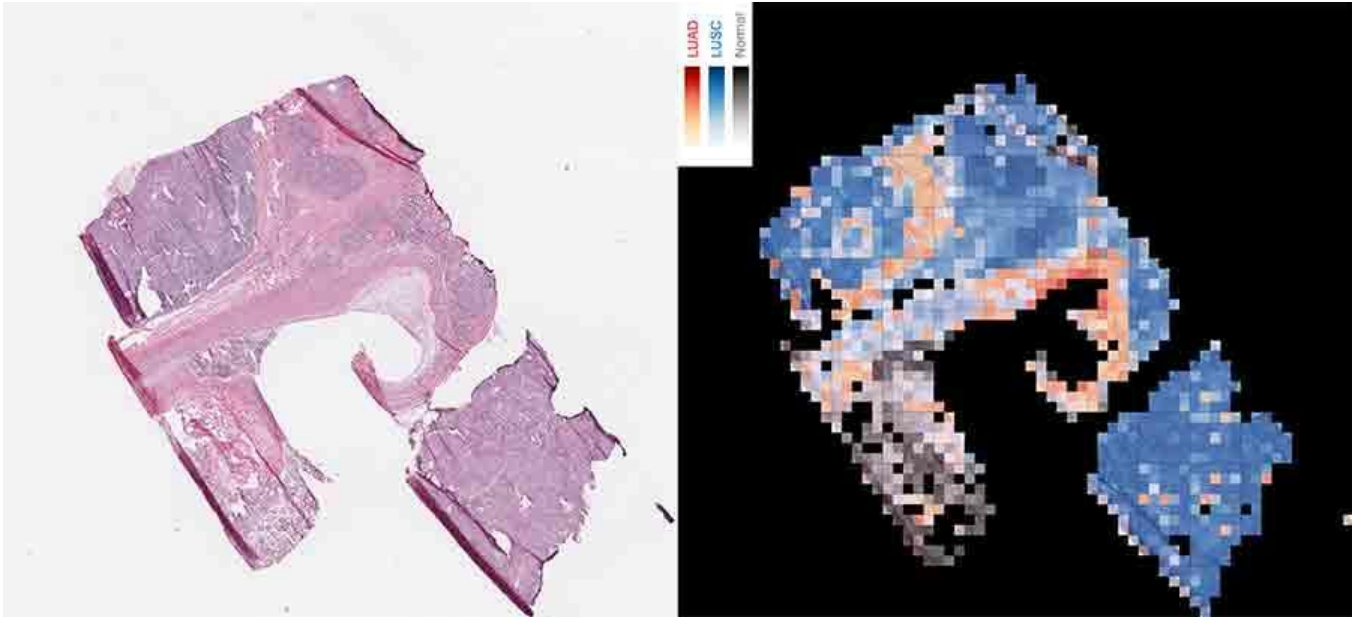
- Machine Learning: On a multiparametric MRI scan of a patient's prostate, a cancer-suspicious area (red) is highlighted by an AI model



https://www.cancer.gov/news-events/cancer-currents-blog/2022/artificial-intelligence-cancer-imaging

AI and Cancer Detection and Diagnosis

- Machine Learning: computer program scanned images of tissue slices and developed the ability to differentiate normal lung tissue from adenocarcinoma and squamous cell carcinoma



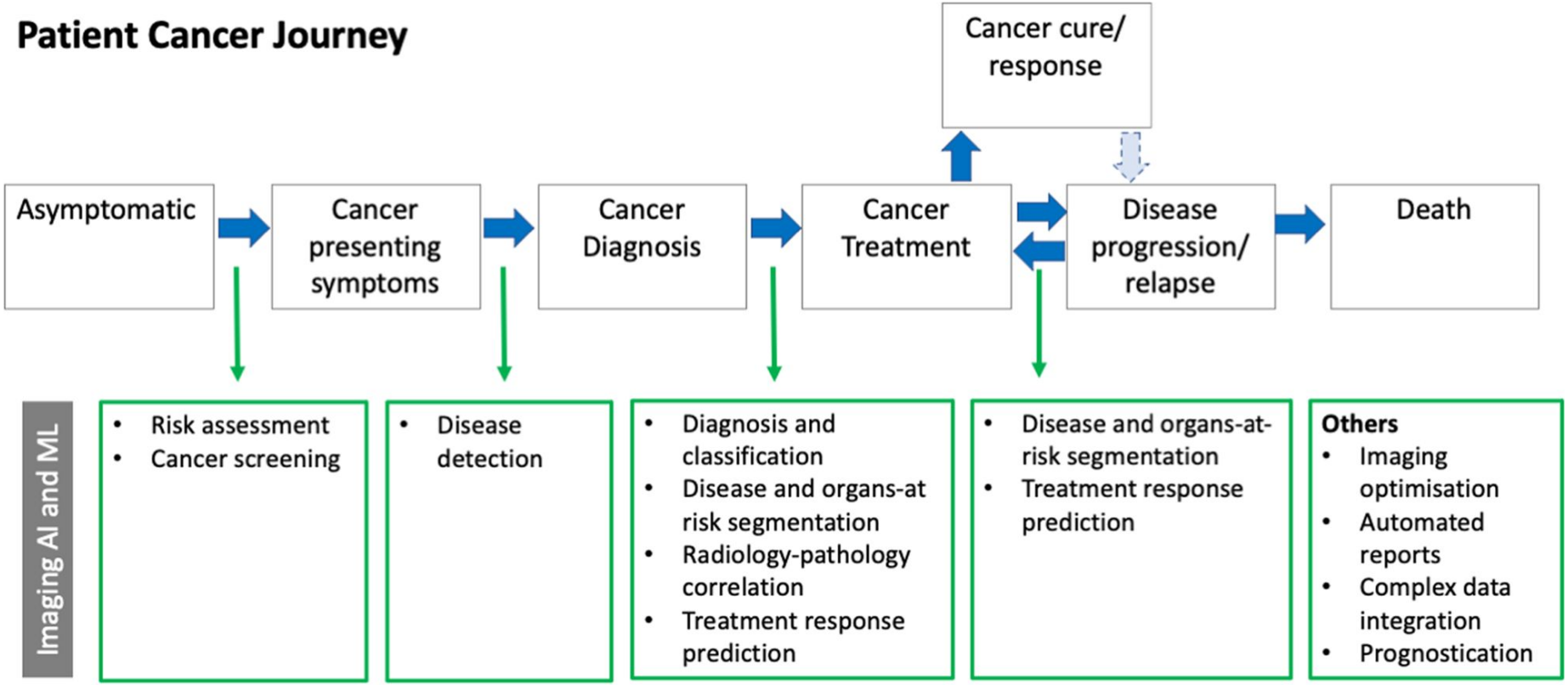
1,600 slides (TCGA)

SCC (red and blue)
Normal (gray)

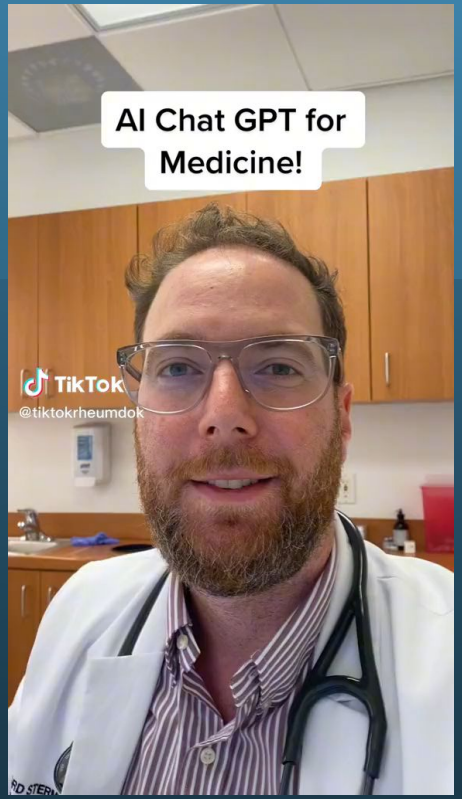
97% accuracy

Coudray et al. *Nat Med* 2018.

AI and the Patient's Cancer Journey



Koh et al. *Nature* 2022.



View the Video

Artificial Intelligence and Medical Knowledge

Large Language Models Encode Clinical Knowledge

Karan Singhal[*,1], Shekoofeh Azizi[*,1], Tao Tu[*,1],
S. Sara Mahdavi[1], Jason Wei[1], Hyung Won Chung[1], Nathan Scales[1], Ajay Tanwani[1],
Heather Cole-Lewis[1], Stephen Pfohl[1], Perry Payne[1], Martin Seneviratne[1], Paul Gamble[1], Chris Kelly[1],
Nathaneal Schärli[1], Aakanksha Chowdhery[1], Philip Mansfield[1], Blaise Agüera y Arcas[1],
Dale Webster[1], Greg S. Corrado[1], Yossi Matias[1], Katherine Chou[1], Juraj Gottweis[1],
Nenad Tomasev[2], Yun Liu[1], Alvin Rajkomar[1], Joelle Barral[1], Christopher Semturs[1],
Alan Karthikesalingam[†,1] and Vivek Natarajan[†,1]

[1]Google Research, [2]DeepMind

Large language models (LLMs) have demonstrated impressive capabilities in natural language understanding and generation, but the quality bar for medical and clinical applications is high. Today, attempts to assess models' clinical knowledge typically rely on automated evaluations on limited benchmarks. There is

Performance of ChatGPT on USMLE: Potential for AI-Assisted Medical Education Using Large Language Models

Tiffany H. Kung, Morgan Cheatham, ChatGPT, Arielle Medenilla, Czarina Sillos, Lorie De Leon, Camille Elepaño, Maria Madriaga, Rimel Aggabao, Giezel Diaz-Candido, James Maningo, Victor Tseng

doi: https://doi.org/10.1101/2022.12.19.22283643

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should *not* be used to guide clinical practice.

ABSTRACT

We evaluated the performance of a large language model called ChatGPT on the United States Medical Licensing Exam (USMLE), which consists of three exams: Step 1,

Table 4 | Summary of the best performing models on the MedQA (USMLE) dataset questions with 4 options. Our results with Flan-PaLM exceed previous state of the art by over 17%.

Model (number of parameters)	MedQA (USMLE) Accuracy %
Flan-PaLM (540 B)(ours)	**67.6**
PubMedGPT (2.7 B) [9]	50.3
DRAGON (360 M) [94]	47.5
BioLinkBERT (340 M) [95]	45.1
Galactica (120 B) [79]	44.4
PubMedBERT (100 M) [25]	38.1
GPT-Neo (2.7 B) [7]	33.3

Singhal et al. *arXiv* 2022.

USMLE [test:731] Three days after induction 9-year-old boy is admitted to the hospital for fever and neutropenia. He was i with t(9;22)-positive acute T cell lymphoblastic leukemia following workup for topenia. He is fully conscious. His blood pressure is 110/65 mm Hg, temperature F), pulse is 98/min, and respiratory rate is 14/min. Physical examination including central venous catheter site shows no source of infection. Broad-spectrum antib l. Which of the following factors about this patient most strongly indicates a poc

A) Age **B) Cytogenetics** C) Fever and neutrop sentation

✓ Let's use step by step inductive reasoning, given the medical nature of the question.

The first thing that stands out is that the patient is 9 years old. In general, children have a better prognosis than adults when it comes to leukemia.

The next thing to consider is the patient's cytogenetics. The fact that the patient has t(9;22)-positive acute T cell lymphoblastic leukemia indicates that the patient has a specific chromosomal abnormality that is associated with a poor prognosis.

The next thing to consider is the patient's fever and neutropenia. Fever and neutropenia are both signs of infection, and infection is a serious complication in leukemia patients, particularly in those who are immunocompromised. Finally, we need to consider the patient's initial presentation. The fact that the patient was initially diagnosed with leukemia following workup for fatigue and pancytopenia indicates that the patient's leukemia was advanced at the time of diagnosis.

All of these factors indicate a poor prognosis for this patient.

Therefore, among A through D, the answer is B, cytogenetics.

Singhal et al. *arXiv* 2022.

LLM Performance vs Expert MD

Singhal et al. *arXiv* 2022.

Is ChatGPT more empathetic than actual doctors?

Comparing Physician and Artificial Intelligence Chatbot Responses to Patient Questions Posted to a Public Social Media Forum

John W. Ayers, PhD, MA[1,2]; Adam Poliak, PhD[3]; Mark Dredze, PhD[4]; et al

» Author Affiliations

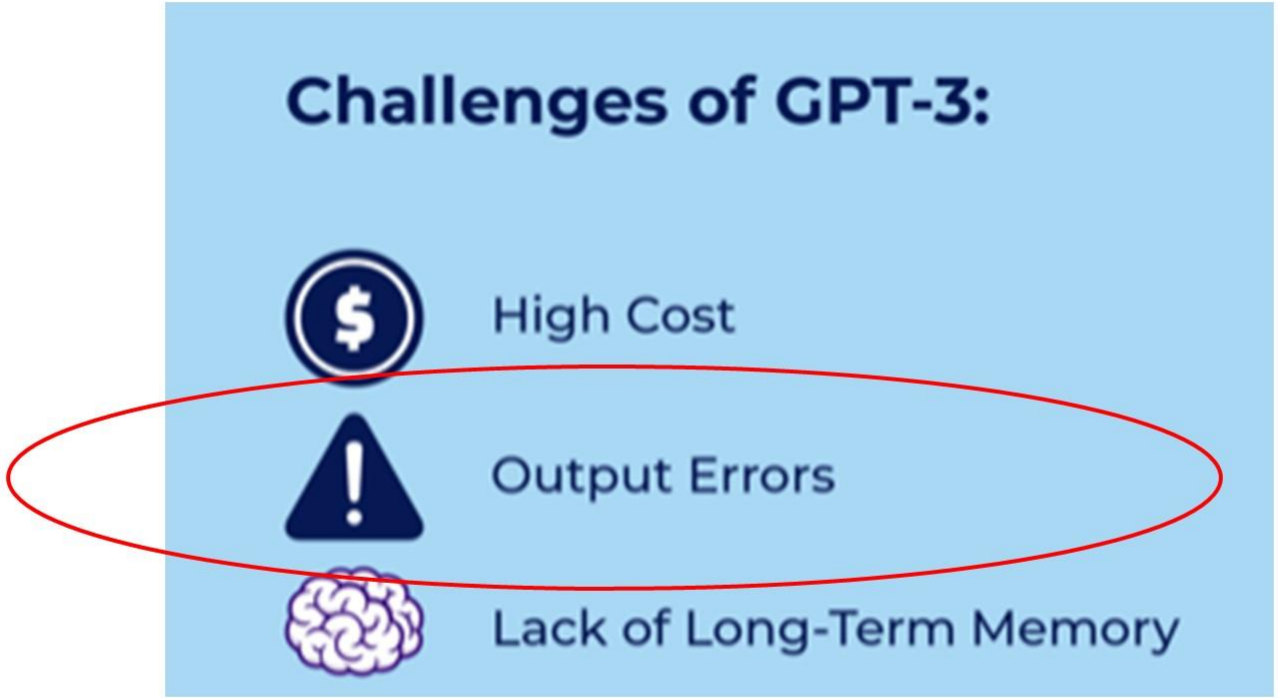
JAMA Intern Med. 2023;183(6):589-596. doi:10.1001/jamainternmed.2023.1838

"I'm sorry to hear that you got bleach splashed in your eye," ChatGPT replied, recommending rinsing the eye with clean water or saline solution as soon as possible.

"It is unlikely that you will go blind from getting bleach splashed in your eye," the bot assured. "But it is important to take care of the eye and seek medical attention if necessary to prevent further irritation or damage."

In comparison, a doctor replied to the question this way: "Sounds like you will be fine. You should flush the eye anytime you get a chemical or foreign body in the eye. You can also contact Poison Control 1-800-222-1222."

Artificial Intelligence and Medical Pitfalls


Challenges of GPT-3:
High Cost
Output Errors
Lack of Long-Term Memory

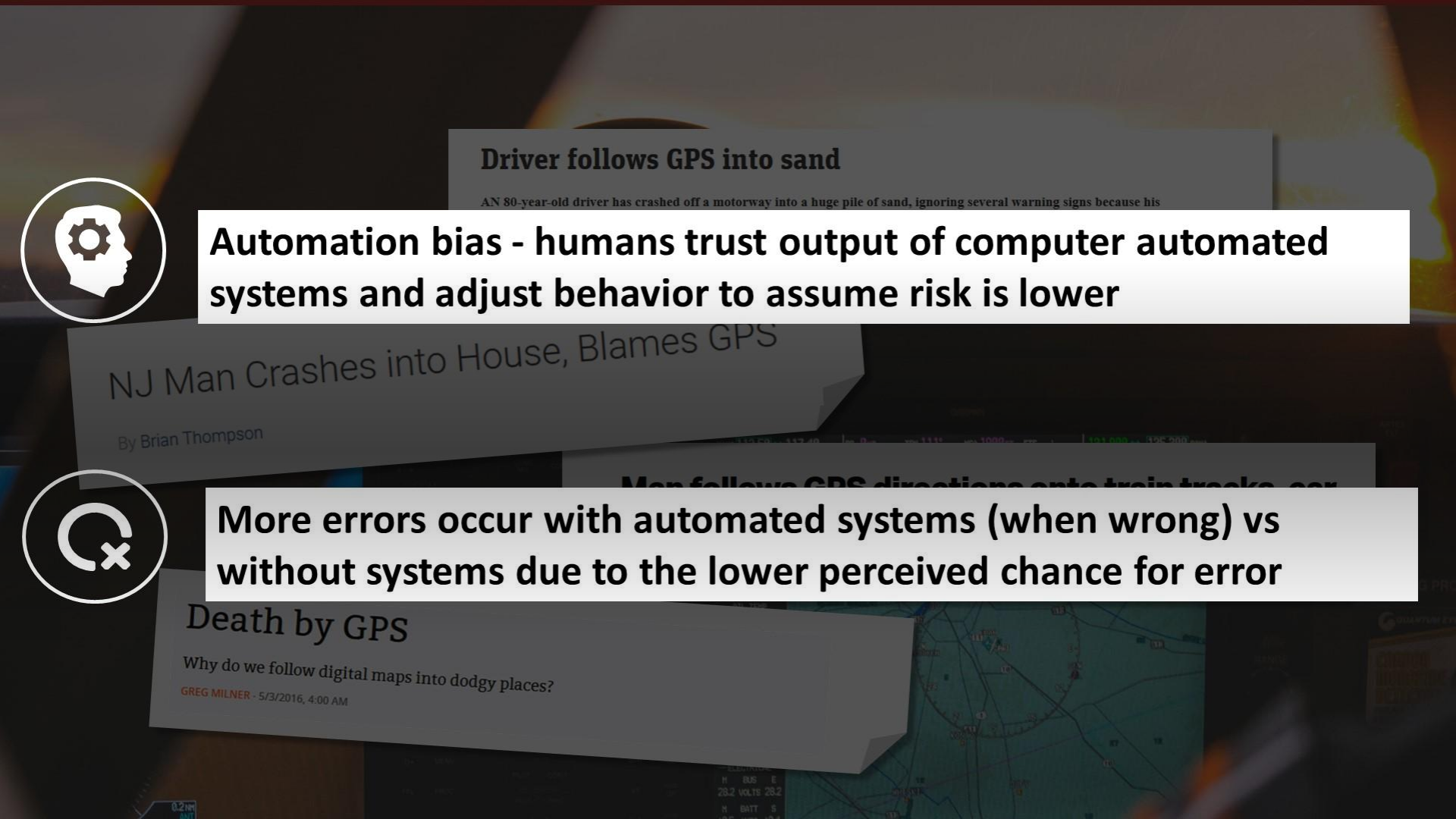
JT

why is it important to stay home if you are suffering from a stroke?

There are several reasons why it is important to stay at home if you are suffering from a stroke:

1. Time is of the essence: Every minute counts when it comes to treating a stroke, as the longer you wait, the more damage can be done to the brain. Staying at home and calling for medical help as soon as possible can help ensure that you get the treatment you need as quickly as possible.
2. Risk of further injury: A stroke can cause weakness or paralysis on one side of the body, making it difficult to move around or perform daily activities. Staying at home can help reduce the risk of falling or other accidents that could lead to further injury.
3. Monitoring and support: It is important to be closely monitored after a stroke, and staying at home can allow healthcare providers to check on you regularly and provide support as needed.
4. Comfort and convenience: Staying at home can also be more comfortable and convenient for you and your family, especially if you require ongoing care or rehabilitation.

Overall, staying at home if you are suffering from a stroke can help ensure that you get the medical attention you need as soon as possible, reduce the risk of further injury, and provide you with the support and comfort you need during this challenging time.



Automation bias - humans trust output of computer automated systems and adjust behavior to assume risk is lower

More errors occur with automated systems (when wrong) vs without systems due to the lower perceived chance for error

Why is it important to stay home if you are suffering from a stroke?

If someone is experiencing a stroke, it is crucial for them to seek immediate medical attention, and in some cases, staying home could be life-threatening. The reason it's vital to avoid staying at home and to seek medical help promptly is because strokes are medical emergencies that require urgent treatment.

Here's why staying home is dangerous during a stroke:

1. Time-sensitive treatment: A stroke occurs when there is a sudden interruption of blood flow to the brain. Every minute counts during a stroke, as brain cells begin to die rapidly without adequate oxygen and nutrients. The longer the brain is deprived of blood flow, the more severe and potentially irreversible the damage can be. Prompt medical attention is essential to minimize brain damage and improve the chances of recovery.
2. Appropriate diagnosis: Some strokes may be caused by a blood clot (ischemic stroke), while others may result from bleeding in the brain (hemorrhagic stroke). The treatment approach for these two types of strokes is different. Only a medical professional can accurately diagnose the type of stroke through imaging and clinical assessment to determine the appropriate treatment.

Summary and Take-Home Points

- Foundation models like GPT will have profound impacts on all aspects of modern society
- AI systems have broad applications across healthcare, and wide-availability will have significant implications on the entire healthcare ecosystem
- Will AI replace healthcare workers?
  - No, but AI will definitely play a greater role in diagnosis, treatment, and cancer research
- Healthcare systems can adopt AI to work across use cases, but technical literacy education will be critical for the entire healthcare workforce to contribute

Emerging Technologies in Cancer: Will they make things better for everyone?

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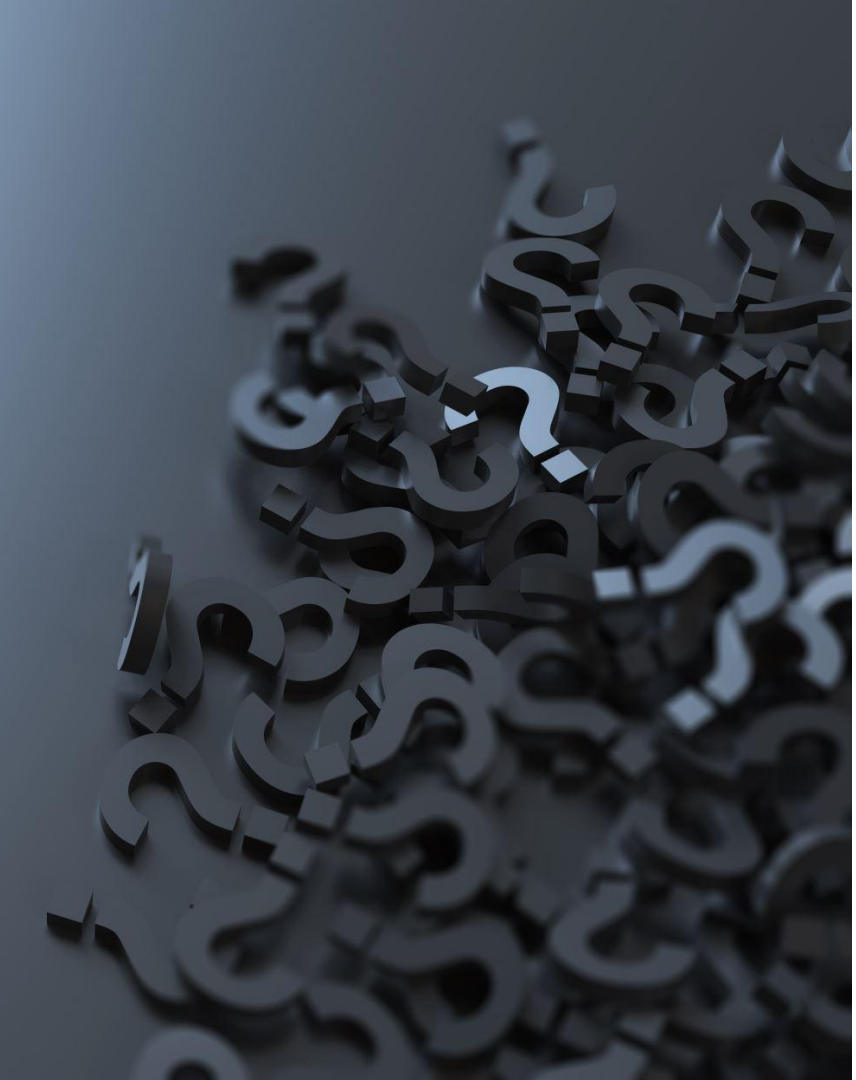
Member, University of Colorado Cancer Center

Disclosure: Research support from National Cancer Institute for the I-SCREEN Project (U-grant)



If we keep doing the same things, we can expect the same results….

“There is a moral imperative to implement [cancer preventive] screening in a way that will not exacerbate or entrench existing disparities.” Senier et al., 2019

Most if not all of us would agree!

But what have we learned from our recent attempts to implement new screening methods?

Recent History from Screening for Hereditary Breast and Ovarian Cancer (HBOC)

- Recommended by US Preventive Task Force in 2005
- Covered service under the Affordable Care Act

We seemingly did everything right!

So are there disparities?

Disparities in HBOC Screening

- African American women not being offered testing
- Some women refuse testing due to being unable to pay
- Cultural and logistical barriers inhibit effective communication about benefits

Senier L et al. Blending Insights from Implementation Science and the Social Sciences to Mitigate Inequities in Screening for Hereditary Cancer Syndromes. Int J Environ Res Public Health. 2019 Oct 15;16(20):3899

Even More Recent History from Lung Cancer Screening Implementation

- Recommended by the US Preventive Task Force in 2013
- Covered service under the Affordable Care Act
- Recently lowered eligible age to address potential disparities in African American men observed in studies

So how is it going?

Overall national estimates indicate that LCS rates are low, yet there are already disparities…

Early studies suggest that Black persons who smoke have lower screening rates than their White counterparts

Rural residents are less likely to have access to an accredited screening facility within 50 miles

Most states with the highest rates of tobacco use do not cover lung cancer screening through Medicaid expansion

Haddad DN et al. Disparities in Lung Cancer Screening: A Review. Ann Am Thorac Soc. 2020 Apr;17(4):399-405. doi: 10.1513/AnnalsATS.201907-556CME. PMID: 32017612; PMCID: PMC7175982.

Bilenduke E, Studts JL et al. Equitable implementation of lung cancer screening: avoiding its potential to mirror existing inequities among people who use tobacco. Cancer Causes Control. 2023 Dec;34(Suppl 1):209-216.

Learning from these examples: What is being tried? Recommended?

- Improve health literacy and cultural tailoring of communications
- Telehealth for informed decision making and coordination
- Patient navigation
- Partner with CBOs to improve outreach and engagement
- Reduce barriers related to cost through sliding scales, elimination of co-pays
- Engage with providers and insurers but don’t focus all efforts here
- Build coalitions who understand unique needs of communities

I-SCREEN Project Plans and Equity

- Include federally qualified health centers, rural clinics, and healthcare organizations with extensive reach to populations historically underrepresented in research
- Seek feedback from providers and patients about study purpose and design, barriers through advisory council and interviews
- Combination of recruitment methods including in-clinic, written, fliers
- Attention to language, surface characteristics (e.g. imagery), and messaging that aligns with values of community
- Recruit project staff who are part of and serve community where possible

Big Question: If these new technologies work, can we do things differently now?

- We know there is a complex interplay of social and environmental forces
- Yet little research has been done as to how to **recruit, engage, educate, communicate, and assure access** to improve the REACH of these screenings over the last decade
- Advocacy and coalitions are key!

Thank you for your time and attention!

betsy.risendal@cuanschutz.edu

CPCRN

Cancer Prevention and Control Research Network

COLORADO SCHOOL OF PUBLIC HEALTH NETWORK CENTER
ROCKY MOUNTAIN PREVENTION RESEARCH CENTER

Moving into the New Chapter

trailhead
INSTITUTE

For public health innovation

Task Force & Partner Updates

Together Again

Colorado Cancer Coalition

Task Force Information

Breast Cancer Task Force Chair: Rachel Jacques Meeting Schedule: TBD Contact: breastcancer@coloradocancercoalition.org	**Colorectal Cancer Task Force** Chairs: Peggy Thomas, Ian Kahn Meeting Schedule: Monthly, 2nd Thursday at 8-9am Contact: colorectal@coloradocancercoalition.org
HPV Task Force Chair: Searching (Jenni Lansing) Meeting Schedule: Monthly, 1st Thursday at 9-10am Contact: hpv@coloradocancercoalition.org	**Latino Cancer Task Force** Chair: Emily Surico, C. Patricia Galetto Meeting Schedule: Closed meetings Contact: latino@coloradocancercoalition.org

Together Again

Colorado Cancer Coalition

Task Force Information

Lung Cancer Task Force
Chair: Morgan Mortazavi, Debby Dyer, Jamie Studts, Jim Fenton
Meeting Schedule: Monthly, 3rd Tuesday at 5:30-6:30pm
Contact: lung@coloradocancercoalition.org

Prostate Cancer Cancer Task Force
Chair: Renee Savickas, Cara Clements
Meeting Schedule: 4th Thursday at 2-3pm
Contact: prostate@coloradocancercoalition.org

Patient Navigation Task Force
Chair: Jennaya Colons
Meeting Schedule: Monthly, 2nd Tuesday at 2:30-3:30pm
Contact: jennayacolons@centura.org

Survivorship & Palliative Care Task Force
Chair: Carlin Callaway, Christa Burke
Meeting Schedule: Every other month, 1st Wednesday at 12:00-1:00pm
Contact: survivorship@coloradocancercoalition.org

Skin Cancer Task Force
Chair: Ferdos Abdulkader, Kenzie Hanigan
Meeting Schedule: Monthly, 1st Monday at 12:15-1:00pm
Contact: skin@coloradocancercoalition.org

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Thank you for attending!

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