

COMMUNITY CANCER SCREENING PROGRAM

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University of Nebraska
Medical Center



Nebraska
Medicine

DISCLOSURE DECLARATION

No Conflict of Interest to disclose.



Objectives

Colon cancer overview

Update on FQHC collaboration

Implement a community-initiated program

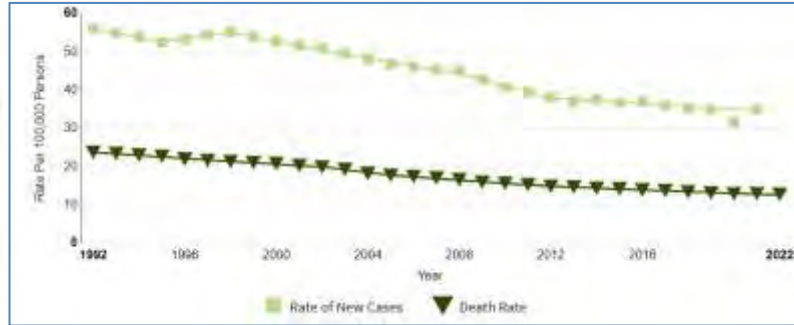
Future directions



Colorectal cancer statistics

Estimated New Cases in 2024 152,810
 % of All New Cancer Cases 7.6%

Estimated Deaths in 2024 53,010
 % of All Cancer Deaths 8.7%

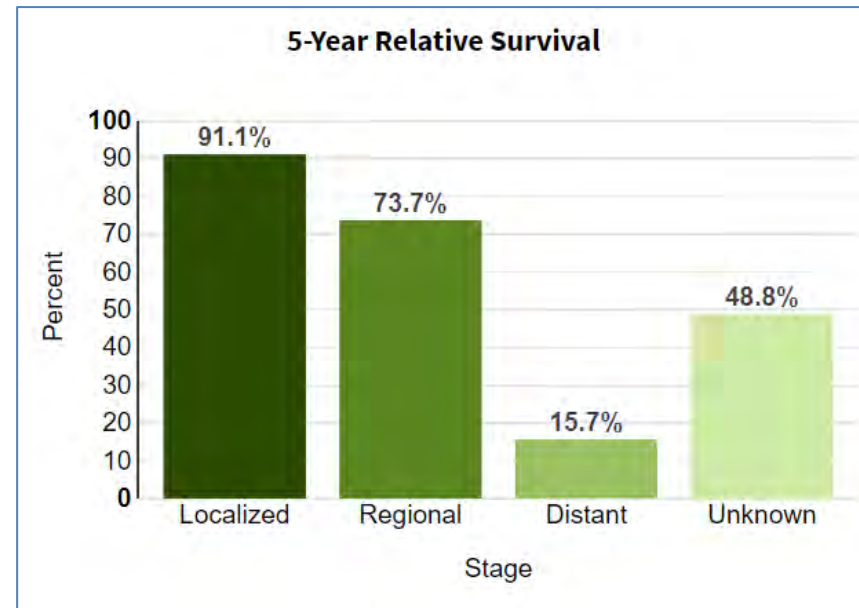
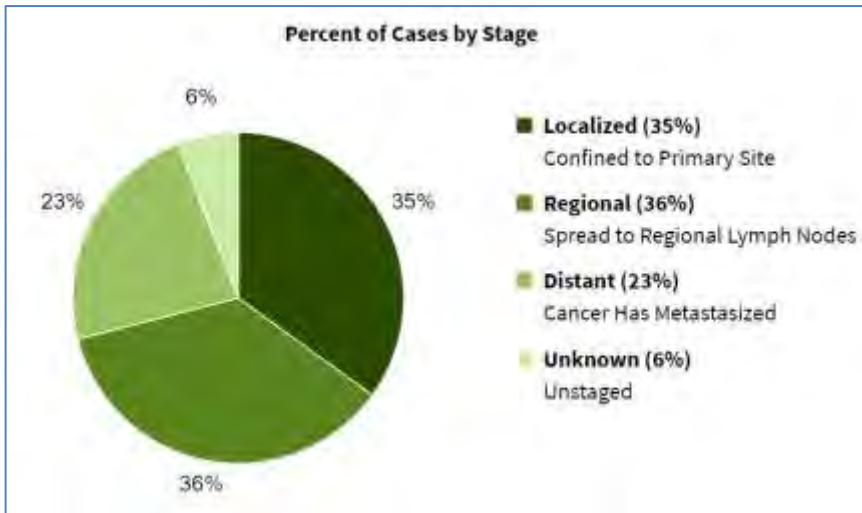


5-Year
Relative Survival

65.0%

2014-2020

Percent of Cases & 5-Year Relative Survival by Stage at Diagnosis: Colorectal Cancer



Colonoscopy and prevention



Hiromi Shinya and William Wolff,
~1975

1969- they did the first colonoscopy
at New York Beth Israel Medical
Center using a scope developed in
Tokyo by Dr. Niwa and Dr. Yamagata

Dr. Shinya also developed the wire
loop snare cautery for polyp removal

From June 1969 to June 1972, the
pair performed 1600 colonoscopies



May 18, 2021

Screening for Colorectal Cancer

Updated Evidence Report and Systematic Review for the US Preventive Services Task Force

Investigators reviewed 11 306 unique citations and 502 full-text articles for all KQs ([Figure 2](#)). Overall, 196 studies reported in 255 publications were included, 70 of which were newly identified since the prior review. A full list of included studies by KQ is available in the [Supplement](#).

Jennifer S. Lin, MD¹; Leslie A. Perdue, MPH¹; Nora B. Henrikson, PhD¹; [et al](#)

Table 1. Key Question 1: Overall Summary of Impact of Screening vs No Screening on Colorectal Cancer Incidence and Mortality

Table 1. Key Question 1: Overall Summary of Impact of Screening vs No Screening on Colorectal Cancer Incidence and Mortality

Screening test (sample No.)	No. of studies (participants)	Rounds (intervals)	Follow-up, y	CRC incidence	CRC mortality
Colonoscopy ^{37,47}	2 cohort studies ^a (n = 436 927)	1	8-24 ^b	With polypectomy: HR, 0.53 (95% CI, 0.40 to 0.71) ^c Negative colonoscopy result: HR, 0.47 (95% CI, 0.39 to 0.57) ^c Age 70-74 y: RD, -0.42% (95% CI, -0.24% to -0.63%) ^d Age 75-79 y: RD, -0.14% (95% CI, -0.41% to -0.16%) ^d	HR, 0.32 (95% CI, 0.24 to 0.45) ^c
Flexible sigmoidoscopy ^{19,24,29,31}	4 RCTs ^b (n = 458 002)	1-2 (every 3-5 y)	11-17	IRR, 0.78 (95% CI, 0.74 to 0.83)	IRR, 0.74 (95% CI, 0.68 to 0.80)
Hemoccult II ^{20,21,27,16,39}	5 RCTs ^b (n = 419 966)	2-9 (every 2 y)	11-30	RR range, 0.90 (95% CI, 0.77 to 1.04) to 1.02 (95% CI, 0.93 to 1.12)	RR range, 0.78 (95% CI, 0.65 to 0.93) to 0.91 (95% CI, 0.84 to 0.98) ^f
FIT ⁴⁶	1 cohort study ^a (n = 5.4 million)	Every 2 y	6 (mean, 3)	NR	RR, 0.90 (95% CI, 0.84 to 0.95)

Abbreviations: CRC, colorectal cancer; FIT, fecal immunochemical test; HR, hazard ratio; IRR, incidence rate ratio; NR, not reported; RCT, randomized clinical trial; RD, risk difference; RR, relative risk.

^a Includes newly identified studies or newly identified articles with additional follow-up to a previously included study.

^b Twenty-two-year follow-up for incidence; 24-year follow-up for mortality.

^c Adjusted for age, body mass index, family history, smoking status, physical

activity, diet, vitamin use, aspirin use, nonsteroidal anti-inflammatory drug use, cholesterol-lowering drug use, hormone replacement therapy.

^d Standardized 8-year risk.

^e One RCT in Finland that only has interim follow-up is not represented in this table (n = 360 492).

^f Annual RR from 1 trial only, 0.68 (95% CI, 0.56-0.82); 11 rounds every 1 year, 30-year follow-up.

Screening Guidelines for Average Risk

Age \geq 45 yrs

No family history of colon, other GI, GU, lung or breast cancers

No personal history of inflammatory bowel disease



Colonoscopy should be offered first. If negative, repeat every 10 years until age 75y.

Other screening modalities can be offered if the patients refused colonoscopy



Stool tests

Fecal Occult Blood Test

- + No bowel preparation
- + Sampling is done at home
- + Low cost
- + Noninvasive
- May require multiple stool samples
- Will miss most polyps and some cancers
- Higher rate of false-positives than other tests
- Pre-test dietary limitations
- Slightly more effective when combined with a flexible sigmoidoscopy every five years
- **Colonoscopy necessary if abnormalities are detected**
- Interval: Annual

Threshold Analyses to Inform National Coverage Determinations for the Center for Medicare and Medicaid Services

Test Name	Price
Gualiac FOBT	\$4.54
Fecal immuno-chemical test (FIT)	\$22.22
Stool DNA test	\$94 to \$151 (\$350-\$850 in practice)

FIT: <http://www.cms.hhs.gov/mcd/coverage/techassess.asp?where=stool%20>

Stool DNA: <http://www.cms.hhs.gov/mcd/coverage/techassess.asp?9:212>

Stool DNA Test

- + No bowel preparation
- + Sampling is done at home
- + Requires only a single stool sample
- + Noninvasive
- Will miss most polyps and some cancers
- High cost compared to other stool tests
- New technology with uncertain interval between testing
- **Colonoscopy necessary if abnormalities are detected**
- Interval: Annual



Treatment options

Precancerous: Polypectomy via colonoscopy (cure)

Early localized disease (stage I & II): Surgery with lymph node dissection

Locally advanced (stage III): Surgery follow by adjuvant chemotherapy

Metastatic (stage IV): chemotherapy follow by surgery if resectable

Rectal cancer treatment difference (stage II & III): neoadjuvant chemotherapy follow by surgery

**The best treatment of colorectal cancer is
PREVENTION!!!**



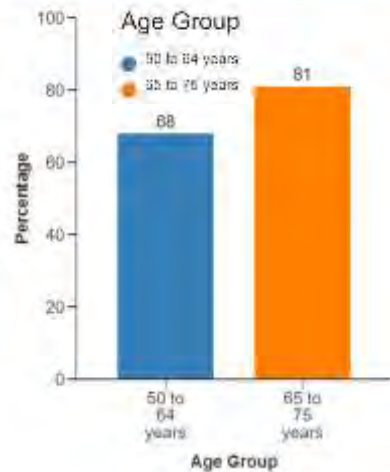
Current Screening Rates in Nebraska reported by the CDC

Overall Percentage of Adults Who Are Up to Date with Colorectal Cancer Screening

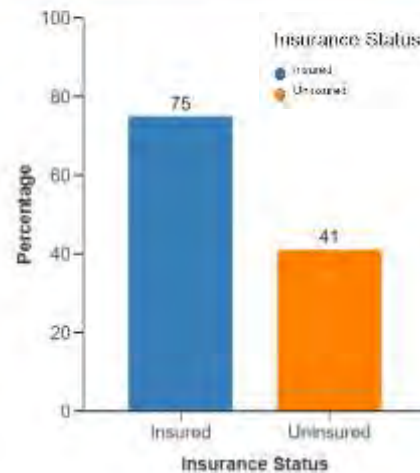
Healthy People 2030 target: 74.4%

73%

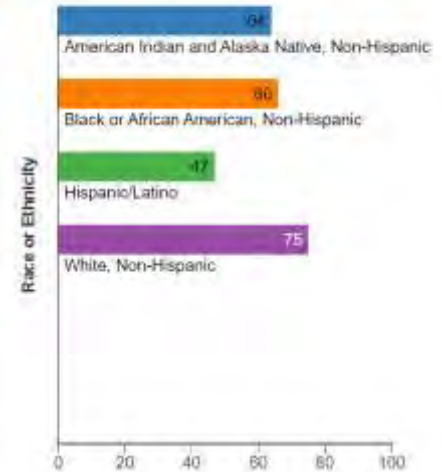
Percentage Up to Date with Colorectal Cancer Screening, by Age



Percentage Up to Date with Colorectal Cancer Screening, by Insurance Status



Percentage Up to Date with Colorectal Cancer Screening, by Race or Ethnicity



One World Connection

Introduction on 4/13/2021 and had first meeting on 6/14/2021 with Dr. Kris McVea

- no mammograms since 3/2020

- many patients with FOBT+ but can't get a colonoscopy

>48,000 patients

6775 patients between 50-74 with only 3141 (46.4%) completed cancer screening (FOBT)



Nebraska Medicine's Commitment

Meeting with NM CFO, COO in July 2021 - were in support of outreach.

Learned about Dr. Taylor's colonoscopy program at Bellevue (10 /yr)

September 2021- Group meeting of Bellevue staff with One World team: reviewed of 3 patients

December 2021- One World asked for recurrent meeting, colonoscopy needs not met (10 – 15 per month)

February 14, 2022- meeting with One World and NM VP for finance – program was expanded.



Colon cancer screening program



Dr. Robert Taylor/ Kelly Vaughn started a screening program in 2020

5/2021-2/2022: 10 referrals, 6 completed (55-97 days, mean 67.5), 1 tubular adenoma

3/1/22 to 12/31/22: 38 referrals, 25 scheduled with 20 completed (22-245 day, mean 89)

Colonoscopies	2021	2022	2023	10/2024
NM (BMC/Dr. Taylor)	6(6)	23(23)	136(63)	29(18)



Summer Undergraduate Research Program to understand the barriers to screening

with support from Dr. Delair, Dr. Mercer and Dr. Mammen



I developed the questionnaires, edited by Dr. Delair, translated by our NM Spanish interpreters.

Students were trained by Dr. Delair to conduct the survey in both English and Spanish

Students called over 600 patients over 2 weeks



Barriers to Screening Colonoscopy for Hispanic Patients in Omaha, Nebraska

Bryan Lugo¹, Angel Lehn¹, Bryan Benitez¹, Shirley Delair²MD, PhD, Quan P. Ly¹, MD
Department of Surgery¹, Department of Pediatrics², University of Nebraska Medical Center, Omaha, NE 68198.

347 patients
contacted, 92
consented to
the survey

Table 1: Demographic Characteristics of Patients

Sample Characteristics	n	%
Gender		
Men	33	36
Women	59	64
Education		
High School or Less	76	83
Some College	4	4
Bachelor/Graduate	9	10
Employed Status		
Employed for Wages	42	46
Self-Employed	4	4
Homemaker/Unemployed	25	27
Retired	18	20
Insurance Status		
Self-pay/Slide	37	40
Hope	6	7
Medicare/Medicaid	17	18
Private Insurance	33	36

Note: N=92. Patients were between the ages of 35-75, average 54.7 (SD= 9.64)

Figure 1: Barriers to Screening Colonoscopy Assessed

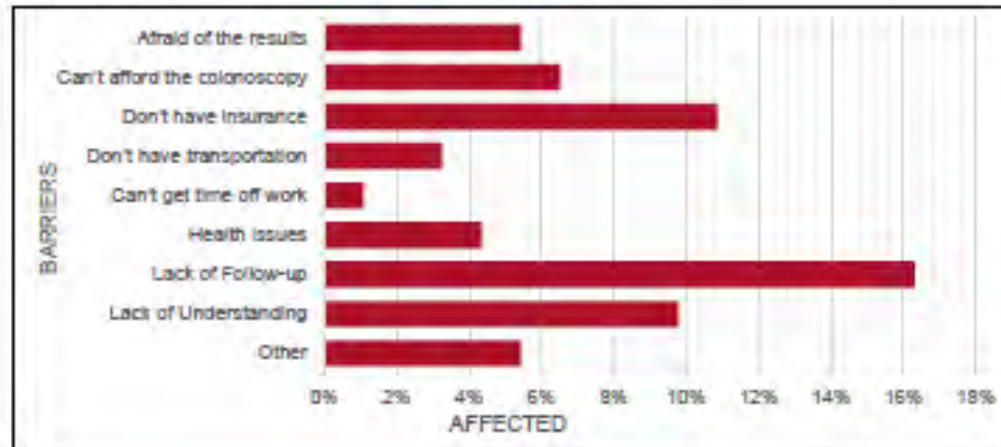


Figure 3: Lack of Understanding of the Procedure by Level of Education

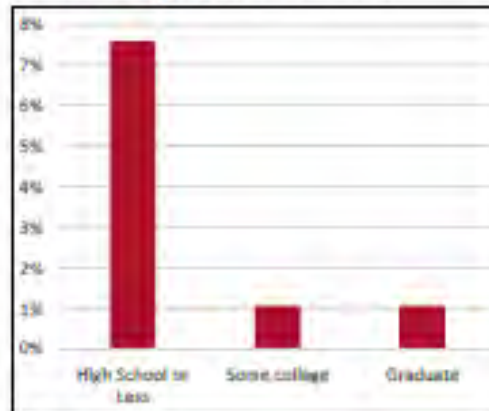
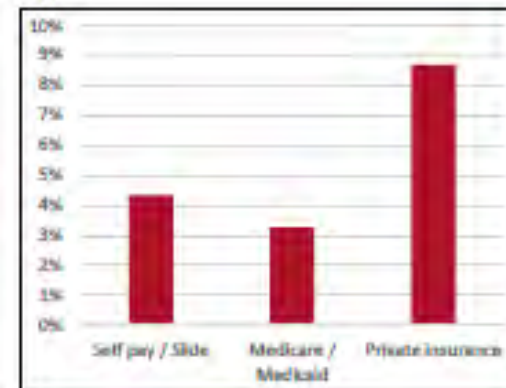


Figure 4: Lack of Follow-up by Insurance Type



Understanding Barriers in Breast Cancer Screening in Hispanics

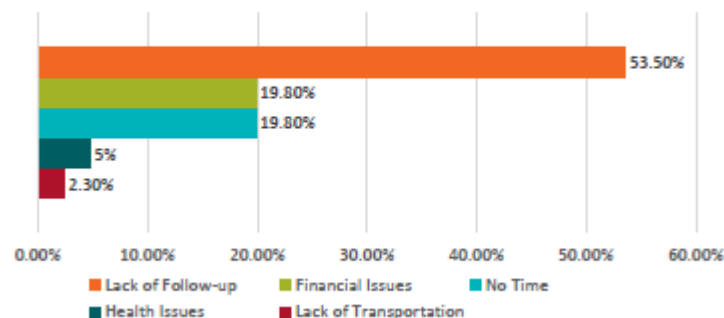
Bryan Benitez¹, Bryan Lugo¹, Angel Lehn¹, Shirley Delair² MD, PhD, Quan Ly¹, MD
 Department of Surgery¹, Department of Pediatrics², University of Nebraska Medical Center, Omaha, NE 68198.

Students called about 700 pts
 212 consented to participate

Table 1. Demographic Data of Patients who Responded to Survey (N=212)

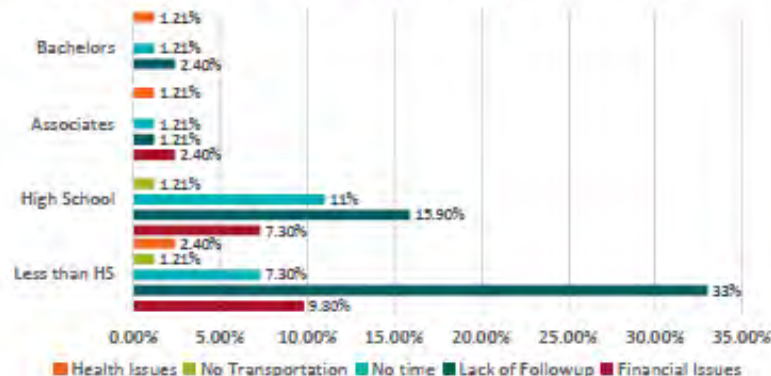
Categories	Completed Mammogram	Incompleted Mammogram	Total %
Age			
30-44	0	39	18.6
45-65	97	44	67.5
66+	29	0	13.9
Race			
Hispanic	113	73	87.7
White(Non-hispanic)	11	9	9.4
Black	3	1	1.9
Education Level			
Less than HS	63	44	50.7
High School	43	29	34.1
Bachelors	12	4	7.6
Associates	6	6	5.7
Insurance			
EWM	3	2	2.4
Private	28	15	20.5
Hope	16	11	12.9
In house	5	10	7.1
Medicaid	18	11	13.8
Medicare	16	1	8.1
Self-Pay	41	33	35.2

Figure 2. Percentage of Barriers Cited for Not Attending Mammogram



Results cont.

Figure 3. Most Prevalent Barriers Cited According to Educational Level





Students' plans

- Expand surveys to other clinics
- Volunteer as navigators to help makes the appt for the patients
- **Educators-** if you're interested, let's get together to see how we can put together a program to give college students volunteer opportunities that teach them about health disparity, communication, and strengthen their applications into healthcare careers



Medical Mistrust and Distrust



The U.S. Public Health Service Untreated Syphilis Study at Tuskegee

EXPLORE TOPICS ▾

Q SEARCH

In 1932, the U.S. Public Health Service, working with the Tuskegee Institute, began a study to record the natural history of syphilis. It was originally called the “Tuskegee Study of Untreated Syphilis in the Negro Male”

The study initially involved 600 Black men – 399 with syphilis, 201 who did not have the disease.

Participants’ informed consent was not collected.

Researchers told the men they were being treated for “bad blood,” a local term used to describe several ailments, including syphilis, anemia, and fatigue.

In exchange for taking part in the study, the men received free medical exams, free meals, and burial insurance.



In 1972, an [Associated Press story](#) about the study was published.

In October 1972, the panel advised stopping the study. A month later, the Assistant Secretary for Health and Scientific Affairs [announced the end](#) of the study.

In March 1973, the panel also advised the Secretary of the Department of Health, Education, and Welfare (HEW) (now known as the Department of Health and Human Services) to instruct the USPHS to provide all necessary medical care for the survivors of the study².

The Tuskegee Health Benefit Program (THBP) was established to provide these services. In 1975, participants' wives, widows and children were added to the program.

In 1995, the program was expanded to include health, as well as medical benefits. The last study participant died in January 2004.

Spotlight

By 1943, penicillin was the treatment of choice for syphilis and [becoming widely available](#), but the participants in the study were not offered treatment.

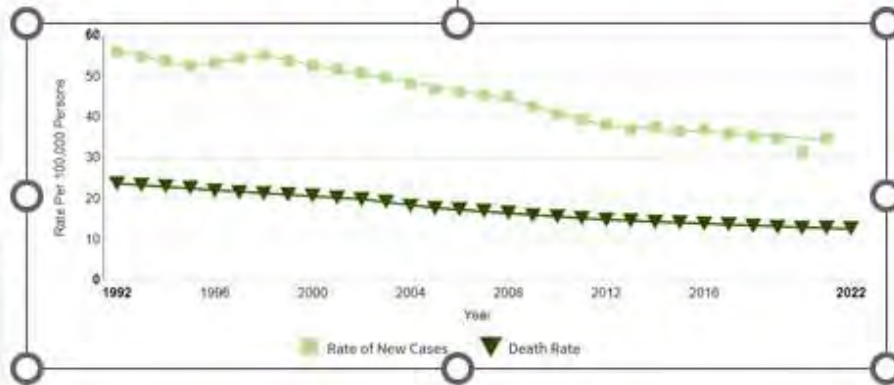
Overcoming patients' mistrust by proving providers' trustworthiness

Why should we care?

Colorectal cancer statistics

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% of All New Cancer Cases 7.6%

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5-Year
Relative Survival

65.0%

2014-2020



**ONE
STOP
CANCER
SHOP**



Christ Love Unity Church

**UNMC
Nebraska Medicine
&
College of Nursing**



AARP®
North Omaha
Chapter #5253

**Two Events: 9/28/24 and
10/26/24 from 10-2pm**

**4 cancers are screened:
Breast, Colon, Lung, and
Prostate**



ONE STOP CANCER SHOP

Mount Calvary Community Church 9/28/24



71 people received services, 67 came to the events

Over 50 volunteers, 40 nursing students, 6 nursing faculty,
3 mammo techs, 2 CT techs, 2 fleet drivers, access clerks



ONE STOP CANCER SHOP

Mount Calvary Community Church 9/28/24

- 25 mammograms
- 13 low dose CT
- 18 PSA
- 30 FIT tests
- 16 BP readings
- 6 BS checks
- Sign up for insurance
- Connect with NOAH for primary care

- 2 with palpable breast mass were referred directly to breast team



Participants Evaluation (33 Responses)

Satisfaction (Overcall)	4.9
Student Consultation	4.87
Educational Offerings	4.8
Site of the Event	4.8

- I felt special, like people really cared.
- Very good. Knowledgeable and informative.
- Excellent! Very impressed with the services





ONE STOP CANCER SHOP

Nebraskan Urban Indian Health Coalition Clinic 10/26/24



67 people seen
25 Mammograms
12 low dose CT
15 PSA
25 FIT test given



Future directions?

One Stop Cancer Shop to Nebraska Cancer Stop?

Connecting to other community leaders to break down healthcare barriers in Omaha and across the state.

Anyone who is interested- let's meet the patient where they are.



Take away

IF we wait for the community to come to us, it is often too late

Prevention and early detection are the best treatment of cancer

Help us connect with the community and build trust.

Encourage young people to go into health care



Questions?

University of Nebraska
Medical Center



Nebraska
Medicine

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