

2012 HOPI ON-RESERVATION HEALTH SURVEY

**Lori Joshweseoma MPH, Director
Hopi Department of Health & Human
Services**

**HOPI COMMUNITY PRESENTATION
9th Annual Arizona Tribal Collaborative Conference
Tuesday, November 17, 2015**

TOPICS

PROJECT HISTORY

SURVEY RESULTS

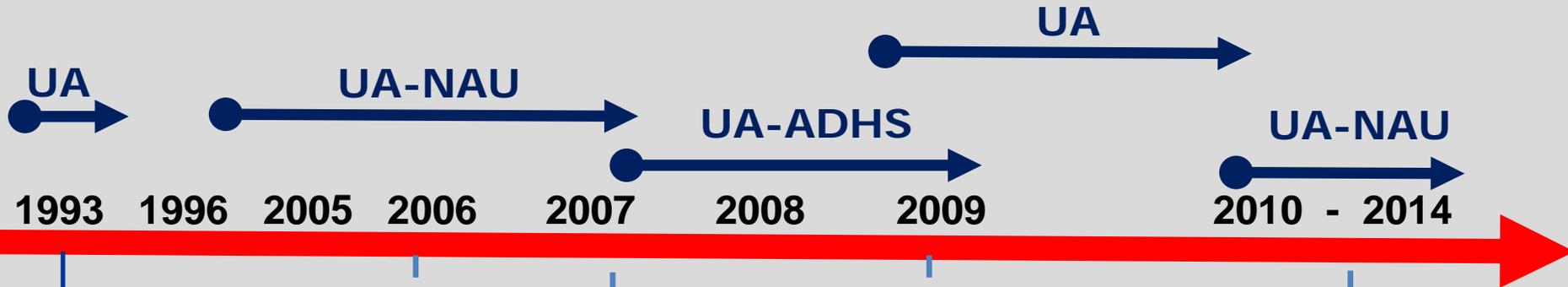
1. *CANCER SCREENING*

2. *COMMUNITY HEALTH*

- FOOD CONSUMPTION
- WEIGHT
- EXERCISE
- TOBACCO USE
- CHRONIC DISEASES (EXCLUDING DIABETES)

3. *DIABETES*

HOPI RESEARCH COLLABORATIONS



**1993
Women's
Survey**

**2006
HWHP
Evaluation**

**2006-07
Women's
Survey**

**Cancer
Burden
1995-2005**

Surveys
****On-reservation****
Urban, Convenience
Adult Hopi enrollees

HOPI HEALTH PRIORITIES

- *GOAL*: To improve the health of the Hopi People

- *CONCERNS* :
 - Cancer
 - Diabetes
 - Tobacco
 - Environment

- *APPROACH*: Modify current programs or develop new programs to address concerns

- *ISSUE*: Need data to support applications for funding for tribal programs

FUNDING

- PARTNERSHIP FOR NATIVE AMERICAN CANCER PREVENTION (NACP), 2010-2013

Project Co-leaders: Lori Joshweseoma (Hopi), Sylvia Brown (UA), Priscilla Sanderson (NAU).

The Comprehensive Minority Institute/Cancer Center Partnership of the National Cancer Institute funded through the University of Arizona-Northern Arizona University Comprehensive NAU/AZCC NACP 1U54 CA143925-04) [PI: David Alberts (UA) , Laura Huenneke (NAU)]

- Arizona Biomedical Research Commission (ABRC) – 2011-2014 - Arizona Department of Health Services, Contract to UA :ADHS 13-031255 / Sylvia Brown [PI]

ON-RESERVATION SURVEY DESIGN

- 250 men / 250 women : age 18+
 - Randomly selected from Hopi Tribal Enrollment Listings
 - Living on the reservation at the time of recruitment
 - Extensive effort: 1,567 persons approached
- Each gender and enrollment village represented according to population size
- Hopi Interviewers formally trained in interviewing techniques and Human Subjects protection
- In-person interviews, using laptop to record responses
- Interviewers & participants compensated

APPROVALS OBTAINED

APPROVAL	DATE
Hopi Tribal Resolution	December 2010
UA Office of Research Waiver (for Hopi pre-approval rights for presentations and publications)	May 2011
Hopi-UA Memorandum of Understanding	July 2011
Hopi-NAU Memorandum of Understanding	September 2011
UA American Indian Studies	September 2011
NAU IRB approval for on-reservation focus groups	August 2011
NAU IRB approval for off-reservation focus groups	June 2012
UA Arizona Cancer Center Scientific Advisory Committee	September 2011
UA IRB approvals for survey research: On-reservation Survey	September 2011, March, May, June, July 2012
UA IRB approvals for survey research: Off Reservation Survey	April 2013
UA IRB approvals for survey research: Convenience Survey	Submitted / under review

SURVEY CONTENT

200+ QUESTIONS: single response, multiple choice, open ended

➤ Topics

- Demographics
- Cancer : Attitudes
- Cancer Experience (self & family)
- Cancer Screening
- Chronic Disease & Conditions including Diabetes and Asthma
- Tobacco use
- Food Consumption
- Exercise
- Caregiving
- Personal Health
- Sun Exposure
- Oral Health
- Environment
- Information Sources
- Experience with Tribal Programs

2012 HOPI ON-RESERVATION SURVEY PROJECT COMPONENTS

QUESTIONNAIRE DEVELOPMENT

HOPI-UA-NAU TEAM

Sept 2010-May 2012

HOPI Priorities and Goals - Customary
Questions - Research Goals - Focus

TECHINCAL TASKS

Sept 2011-June 2012

1. Creation of Data Entry Screens
2. Develop Quotas
3. Create Randomization
4. Write Interviewer Training Manual
- 5, Refine Survey based on Field Test

INTERVIEWER TRAINING

Feb 2012, June 2012

1. Purpose of Study
2. Interviewing Techniques
3. Software usage
4. Tracking contacts made
5. Human Subjects Protection

SURVEY ADMINISTRATION / MANAGEMENT

June 2012-Dec 2012

1. Apply randomization scheme to Enrollment Listing
2. Track fulfillment of Village/Gender Quotas
3. Allocate contacts to interviewers
4. Back up data
5. Maintain correct database on each laptop
6. Track compensation
7. Data Entry of Tracking Data

DATA CLEANING, ANALYSIS, REPORTING

Jan 2013 -Present

1. Data aggregation, cleaning and recoding
2. Reconcile Tracking and Response Databases
3. Analyze responses
4. Create Tribal Report & Disseminate to Tribe

INTERVIEWER EFFORT

- 3,120 Contact Attempts
- 1,567 Persons Contacted (women: 594 / men: 973)
- 4,850 Miles driven for the 500 interviews completed

Enrollment Village	Persons selected by randomization procedure		Eligible Persons from randomization procedure	Eligible Persons who completed survey	Persons who completed survey
	N	(%)	N	N	%
Bacavi	61	(4%)	35	26	74 %
Hotevilla	214	(14%)	100	59	59 %
Oraibi	80	(5%)	31	22	71 %
Moencopi	229	(15%)	113	72	64 %
Mishongnovi	119	(4%)	62	42	68 %
Kykotsmovi	98	(6%)	69	42	61 %
Sipaulovi	80	(5%)	38	25	66 %
Shungopavi	244	(16%)	126	77	61 %
Sichomovi	151	(10%)	88	52	59 %
Tewa	199	(13%)	95	56	59 %
Walpi	92	(6%)	45	27	60 %
Total	1,567	(100%)	802	500	62 %

SURVEY RESULTS

CHARACTERISTICS OF THE PARTICIPANTS

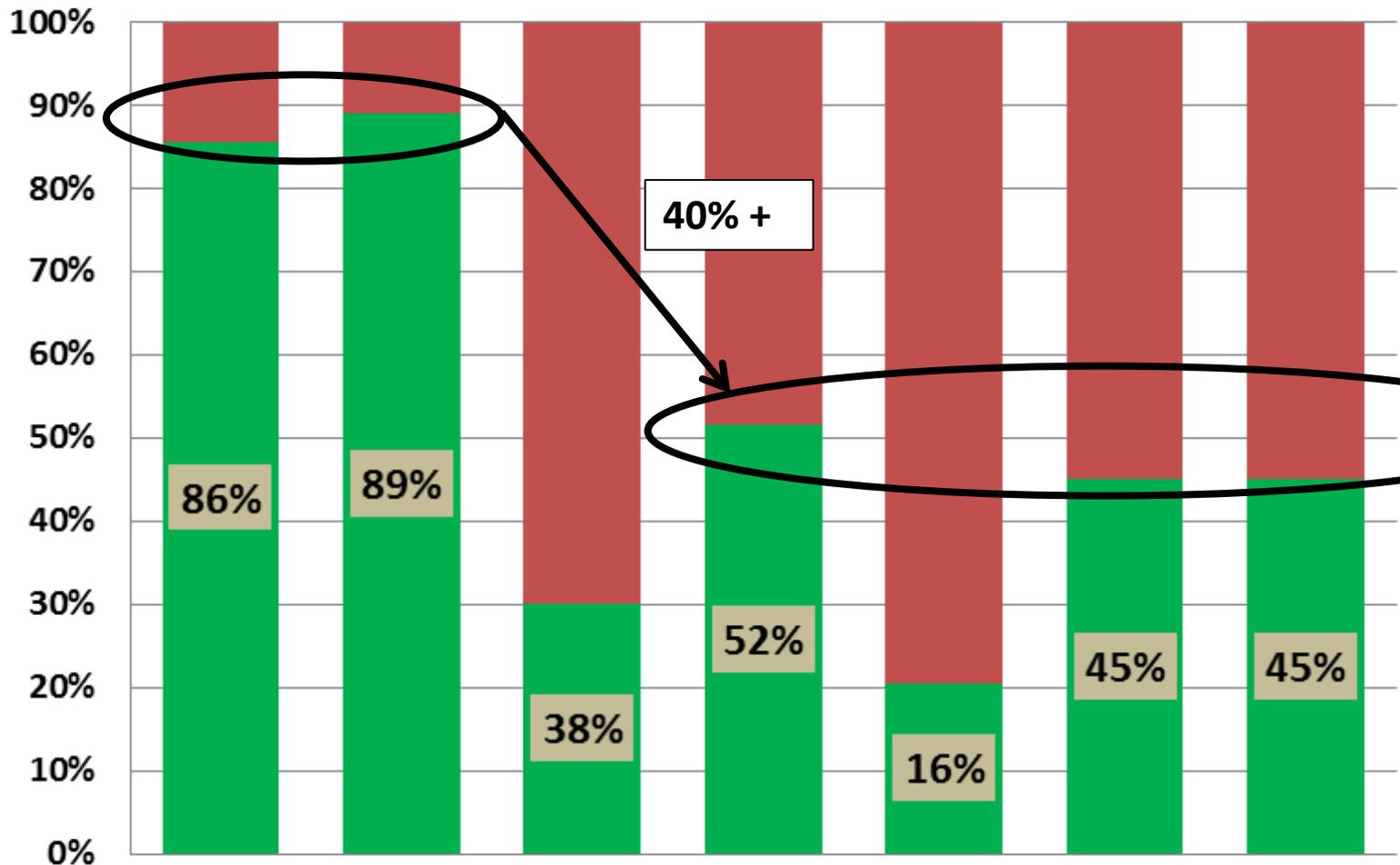
DEMOGRAPHIC CHARACTERISTIC	MEASURE
Average Age (years)	46
Average number of persons in household	5
Average time (years) living on the reservation	25
Education: Some education beyond HS	50%
Primary Language Spoken at home: Hopi	28%
Never lived off the reservation	25%
Used services of traditional healer at least 5 times in last 5 years	52%
Household Income: <\$10,000	47%
Have reliable form of transportation	80%
Have cell phones	82%
Use Internet	47%

CANCER SCREENING

SCREENING ELIGIBILITY AND SCREENING BEHAVIOR

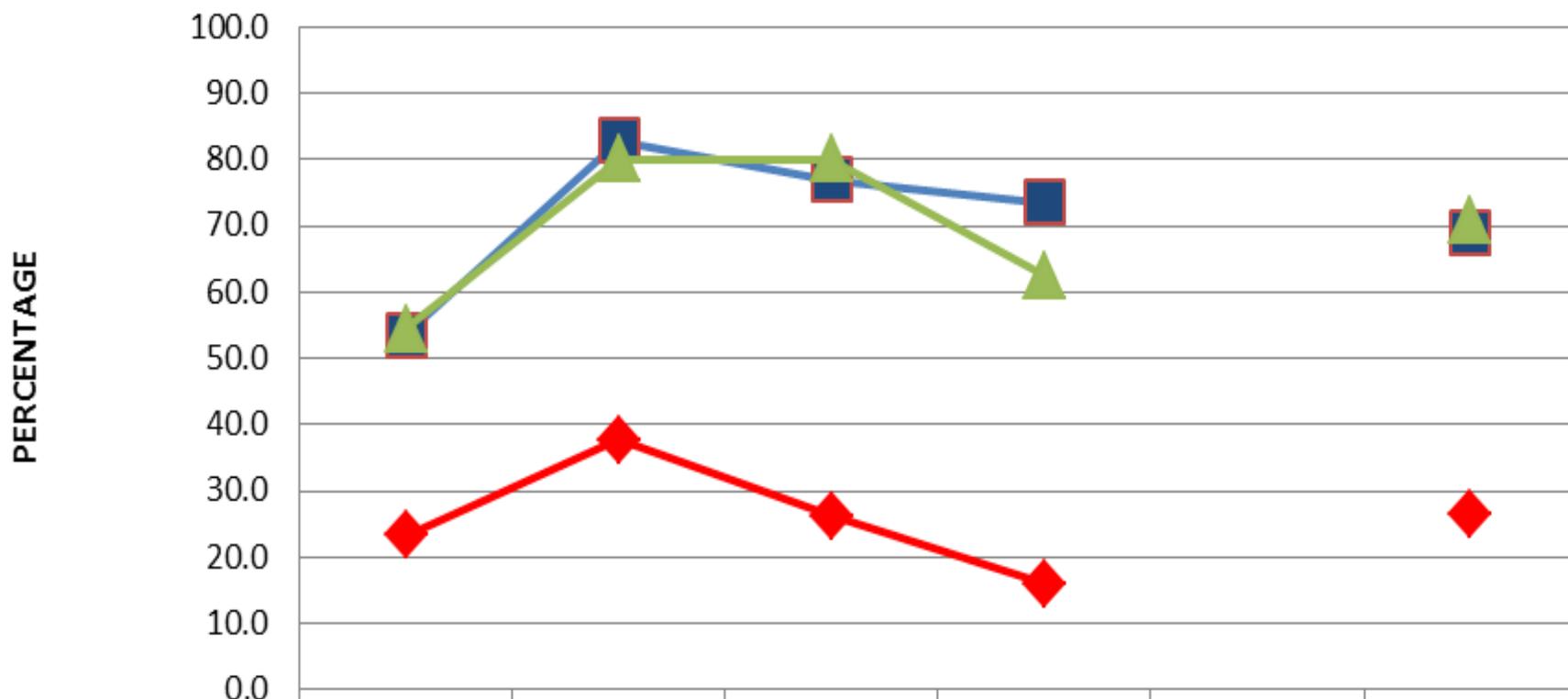
<i>Cancer</i>	CERVICAL	BREAST	PROSTATE		COLORECTAL			
<i>Screening Test</i>	<i>PAP</i>	<i>MAMMOGRAM</i>	<i>PSA</i>	<i>DIGITAL RECTAL</i>	<i>FOBT</i>	<i>COLONOSCOPY</i>		
<i>Gender</i>	<i>F</i>		<i>M</i>		<i>F</i>	<i>M</i>	<i>F</i>	<i>M</i>
<i>Age</i>	18+	40+	45+		50+			
<i># Eligible</i>	252	155	126	126	122	102	122	102
<i># Ever Had test</i>	216	138	38	28	63	16	55	46
<i>% Ever Had Test</i>	86%	89%	30%	22%	52%	16%	45%	45%

PERCENT OF ELIGIBLE EVER SCREENED



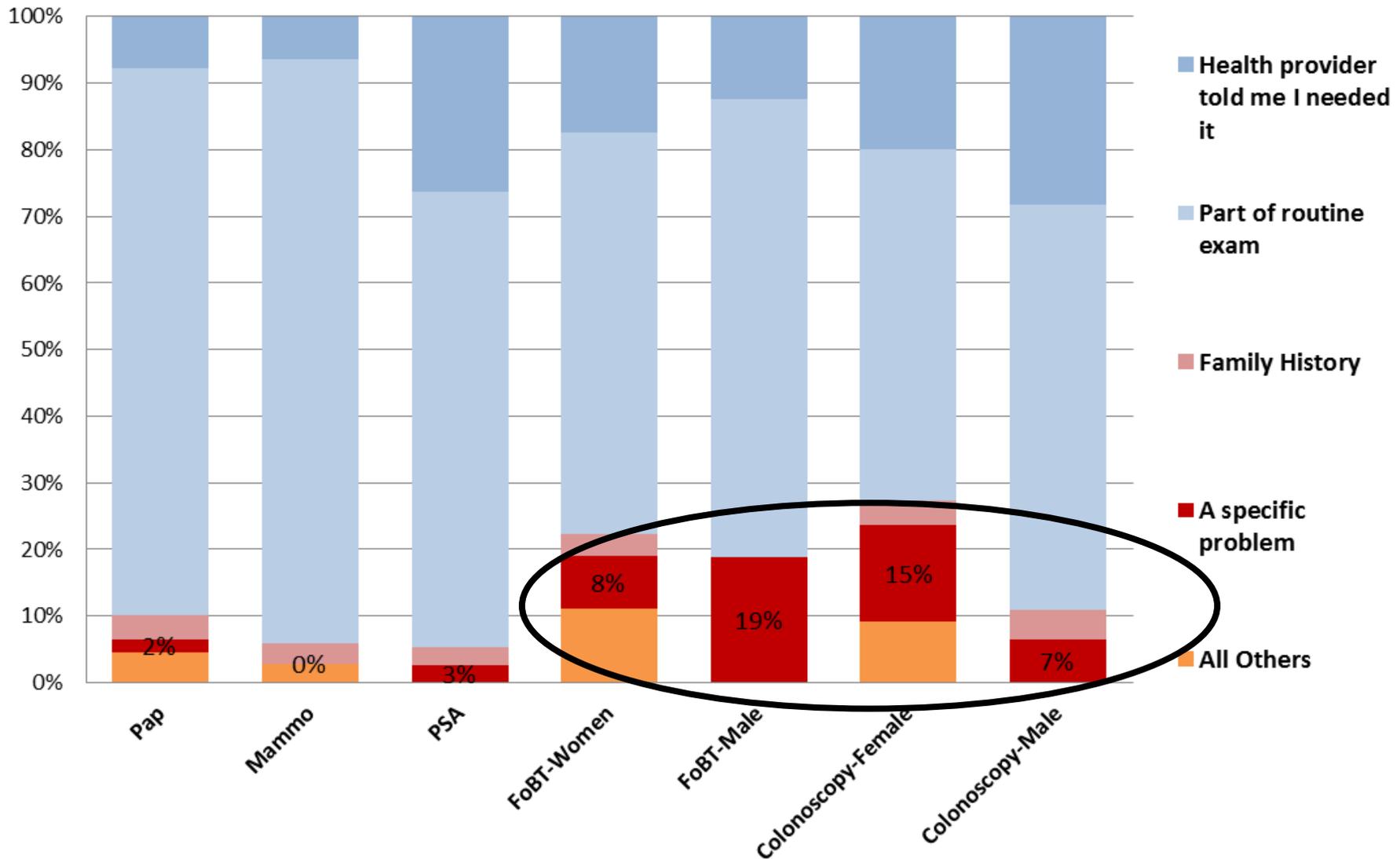
■ SCREENED ■ NOT SCREENED

CHANGE IN PERCENT OF HOPI WOMEN AGE 40+ REPORTING MAMMOGRAM SCREENING WITHIN PAST 2 YEARS

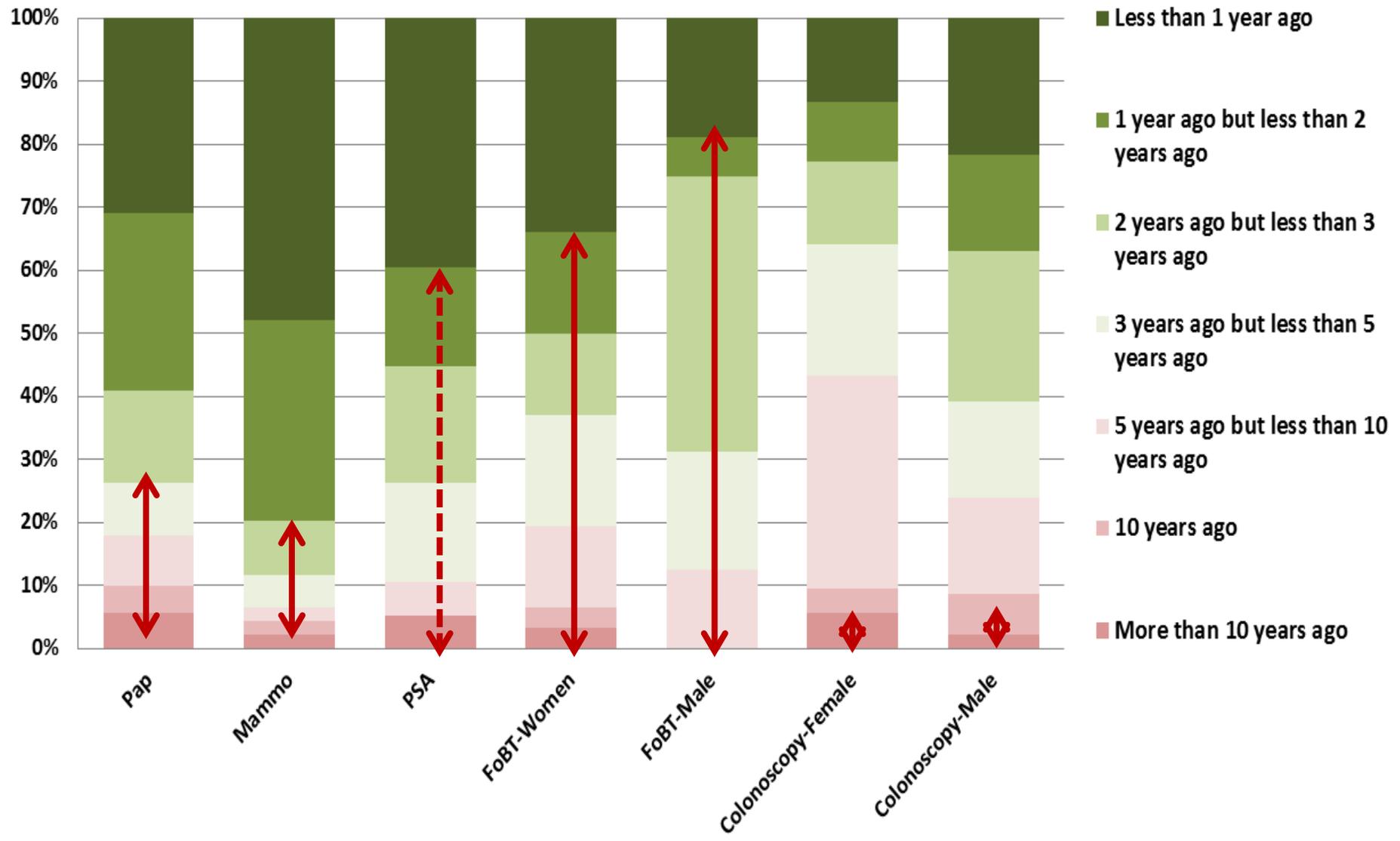


	40-49	50-59	60-69	70+		All 40+;
1993 Survey	23.4	37.8	26.2	16.1		26.4
2006 Survey	53.6	82.9	76.9	73.5		68.9
2012 Survey	54.5	80.0	80.0	62.5		70.9

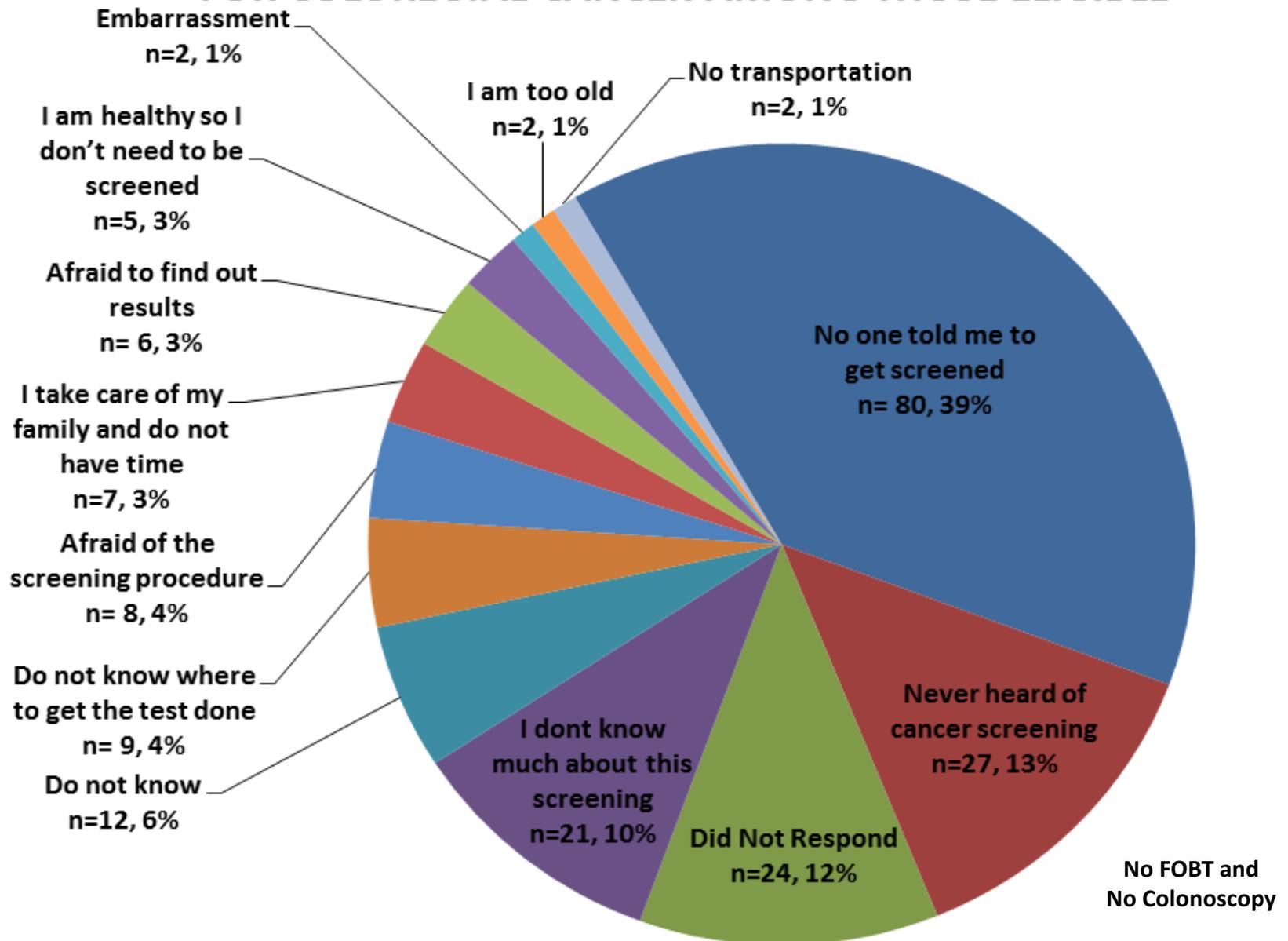
REASON FOR MOST RECENT SCREENING TEST AMONG THOSE EVER SCREENED



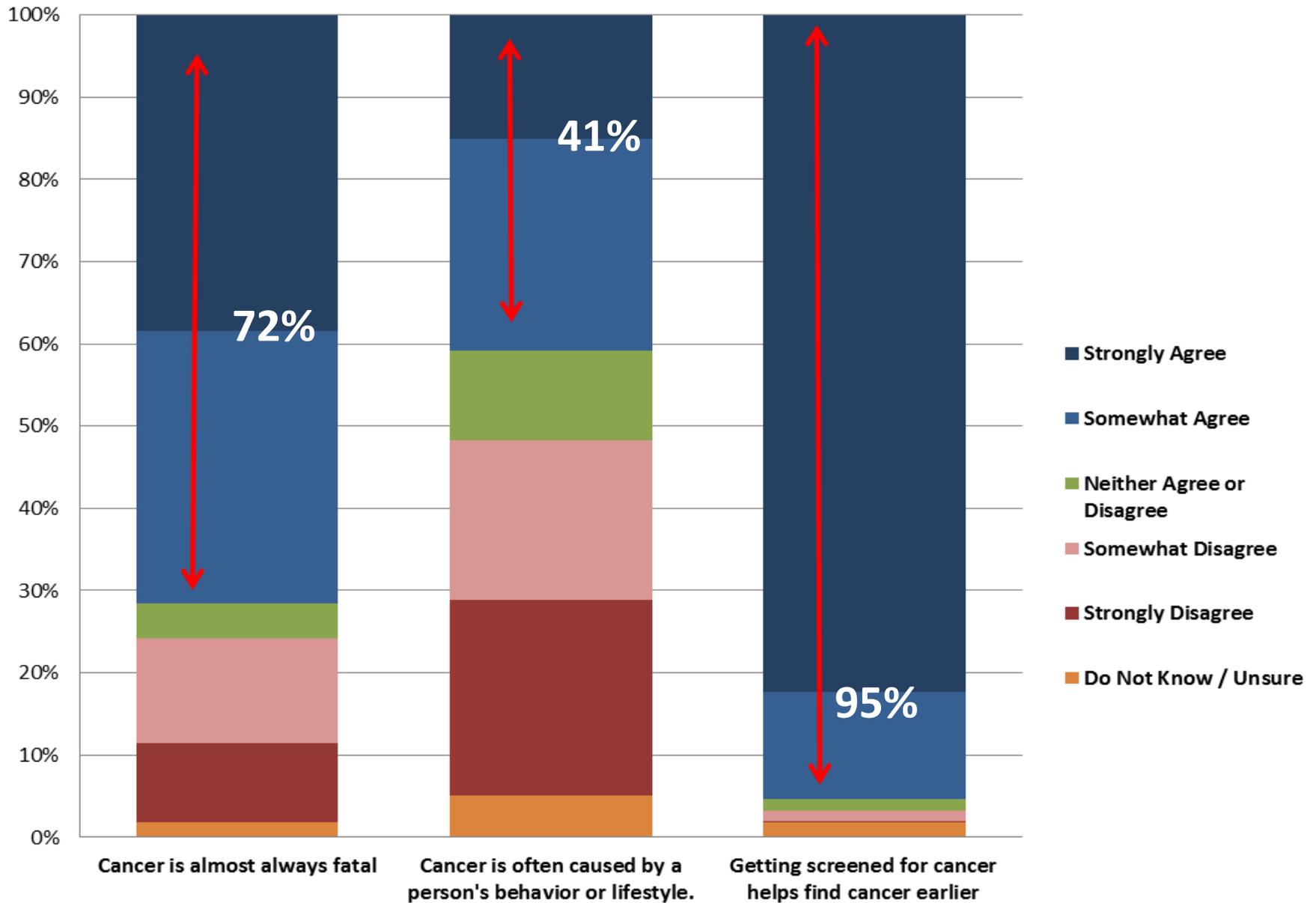
LENGTH OF TIME SINCE LAST SCREENING TEST AMONG THOSE EVER SCREENED



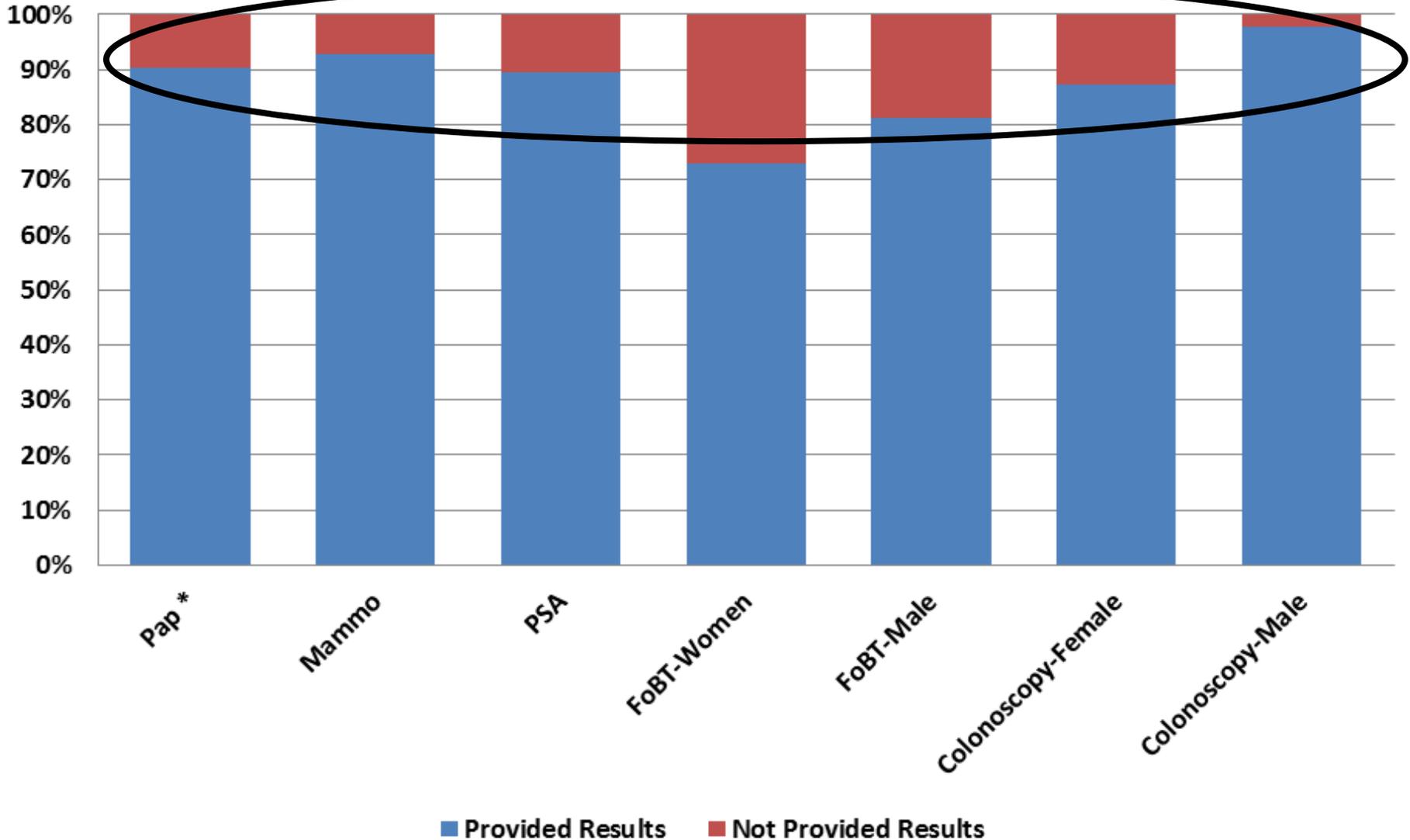
REASONS GIVEN (n=205) FOR NOT BEING SCREENED FOR COLORECTAL CANCER AMONG THOSE ELIGIBLE



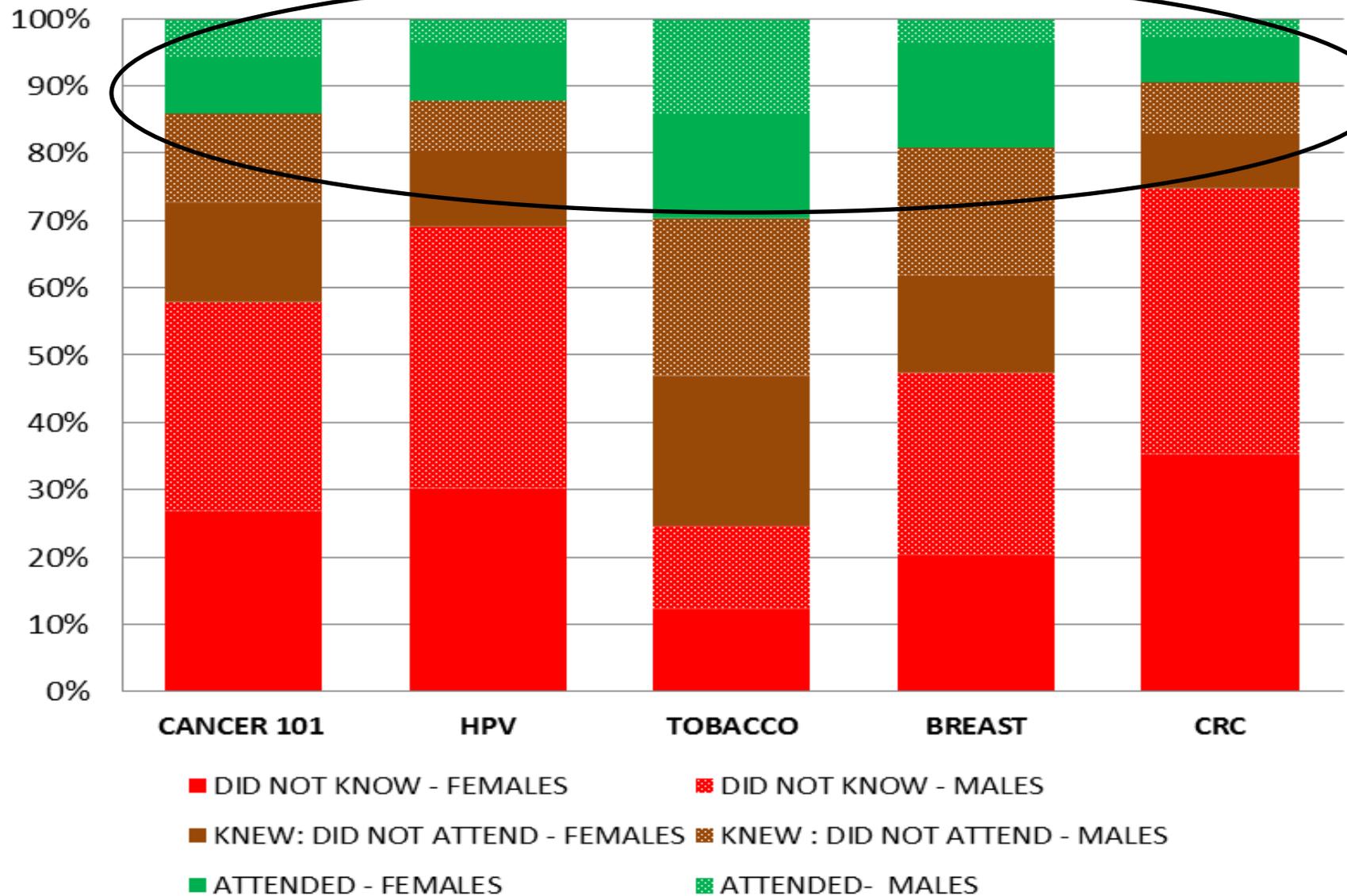
CANCER ATTITUDES (n=500)



PERCENT OF PERSONS WHO WERE PROVIDED TEST RESULTS AMONG THOSE TESTED



KNOWLEDGE OF AND ATTENDANCE AT HOPI PROGRAM PRESENTATIONS



PRELIMINARY RESULTS

POSSIBLE PREDICTORS OF CRC SCREENING

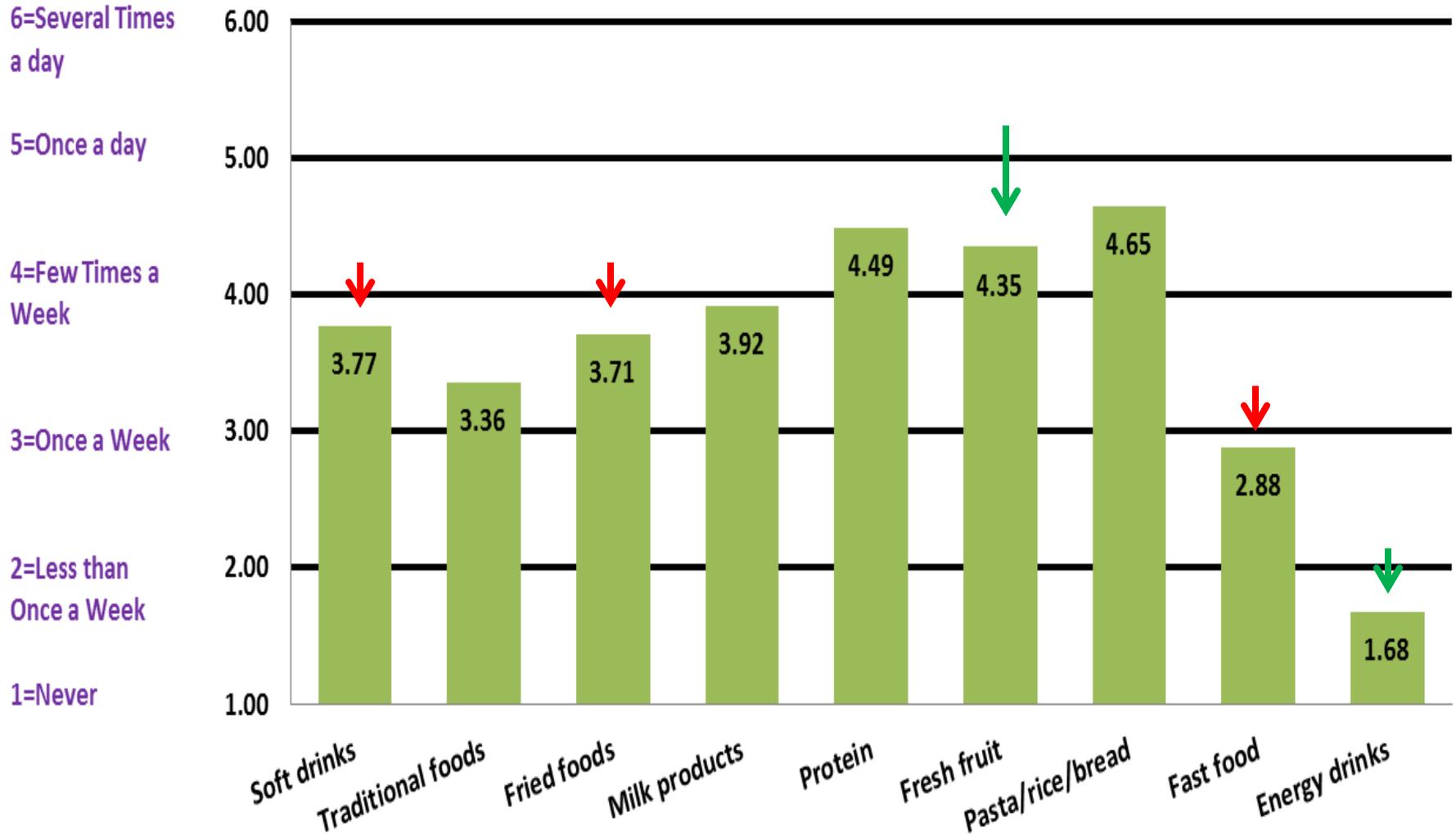
- Eligible Participants with the following characteristics were **26-71% MORE** likely to be screened for CRC
 - Attended Tribal educational presentations
 - Were ever screened for other cancers
 - Applied for RECP
 - Are caregivers to someone with cancer
 - Have / had cancer
 - Ever been to a dentist
 - Ever had their teeth cleaned
 - Use sunscreen
 - Know what BMI is

- Eligible Participants with the following characteristics were **22% LESS** likely to be screened for CRC
 - Male participants
 - Participants under 65

COMMUNITY HEALTH

FOOD CONSUMPTION

AVERAGE FREQUENCY OF CONSUMING
SPECIFIC FOOD TYPES

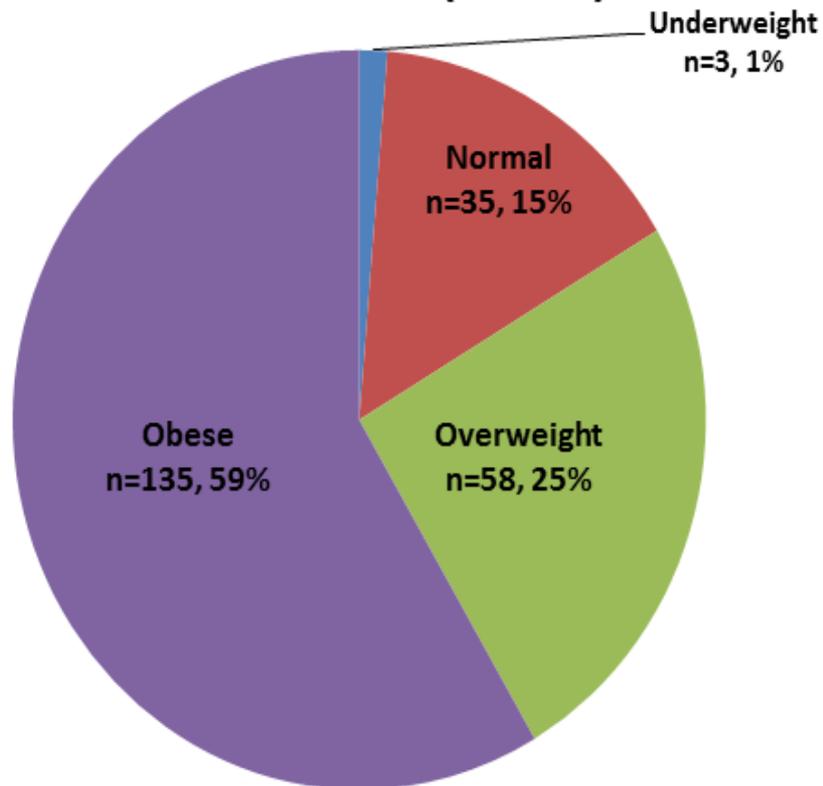


WEIGHT

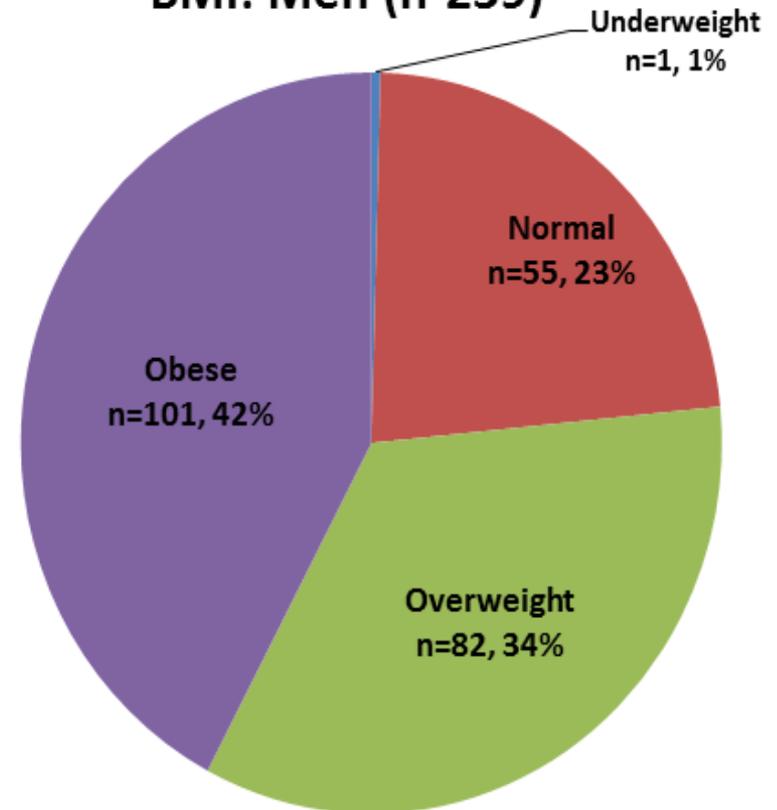
“Body Mass Index (BMI) is a number calculated from a person's weight and height. BMI is a fairly reliable indicator of body fatness for most people”

43% of participants did not know what BMI is

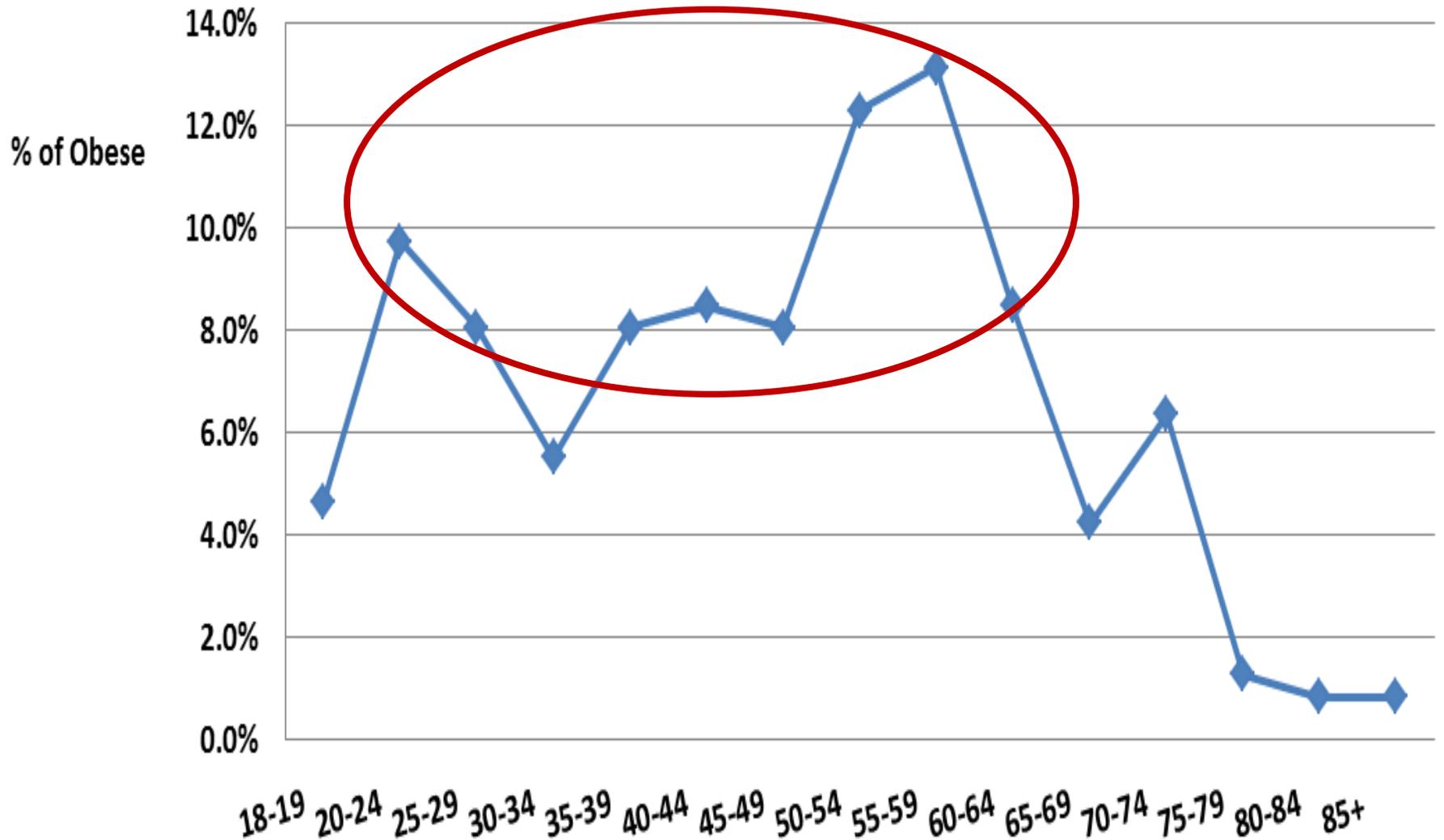
BMI: Women (n=231)



BMI: Men (n=239)



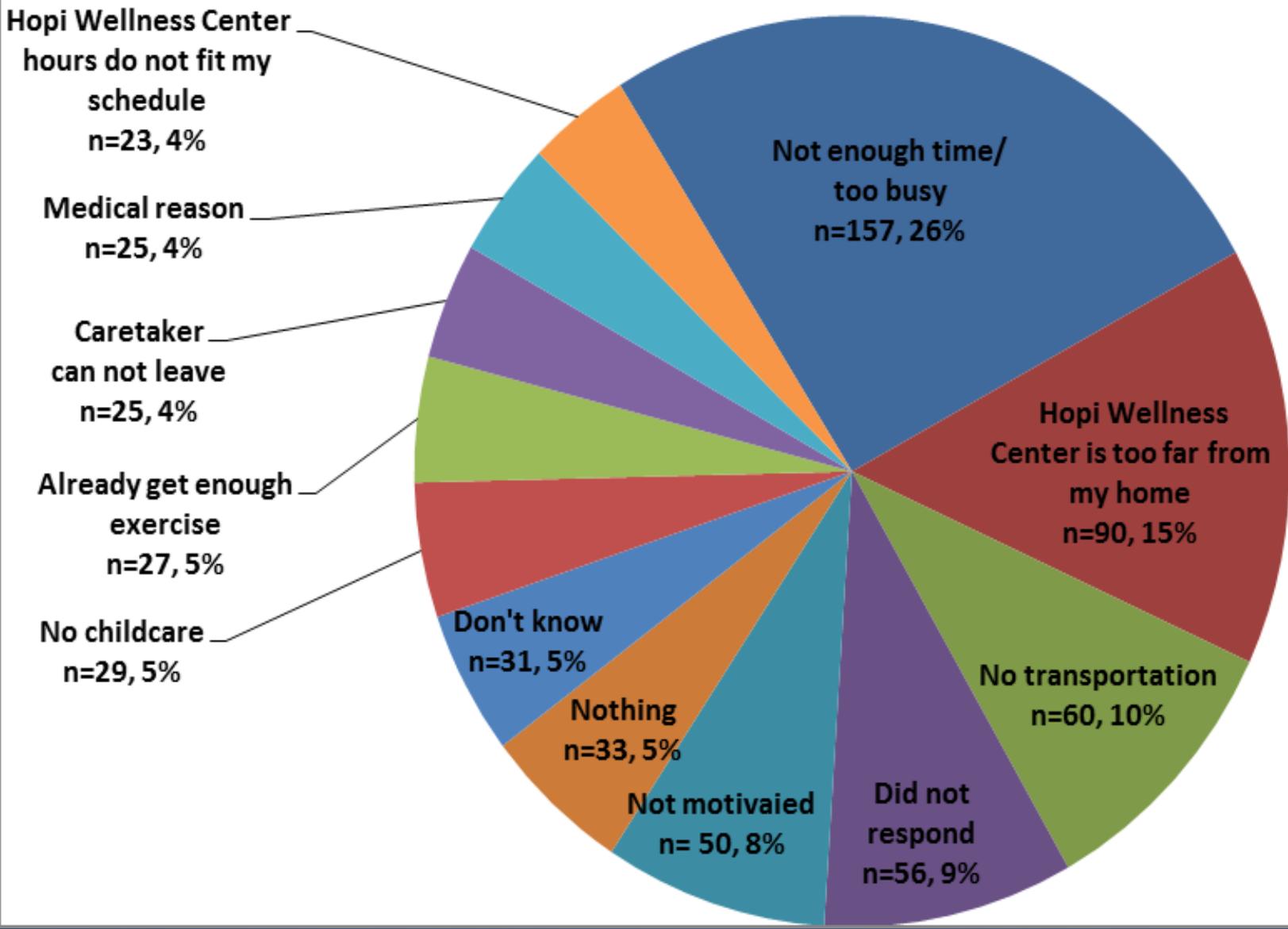
AGE CONCENTRATION OF OBESITY (n=236)



EXERCISE

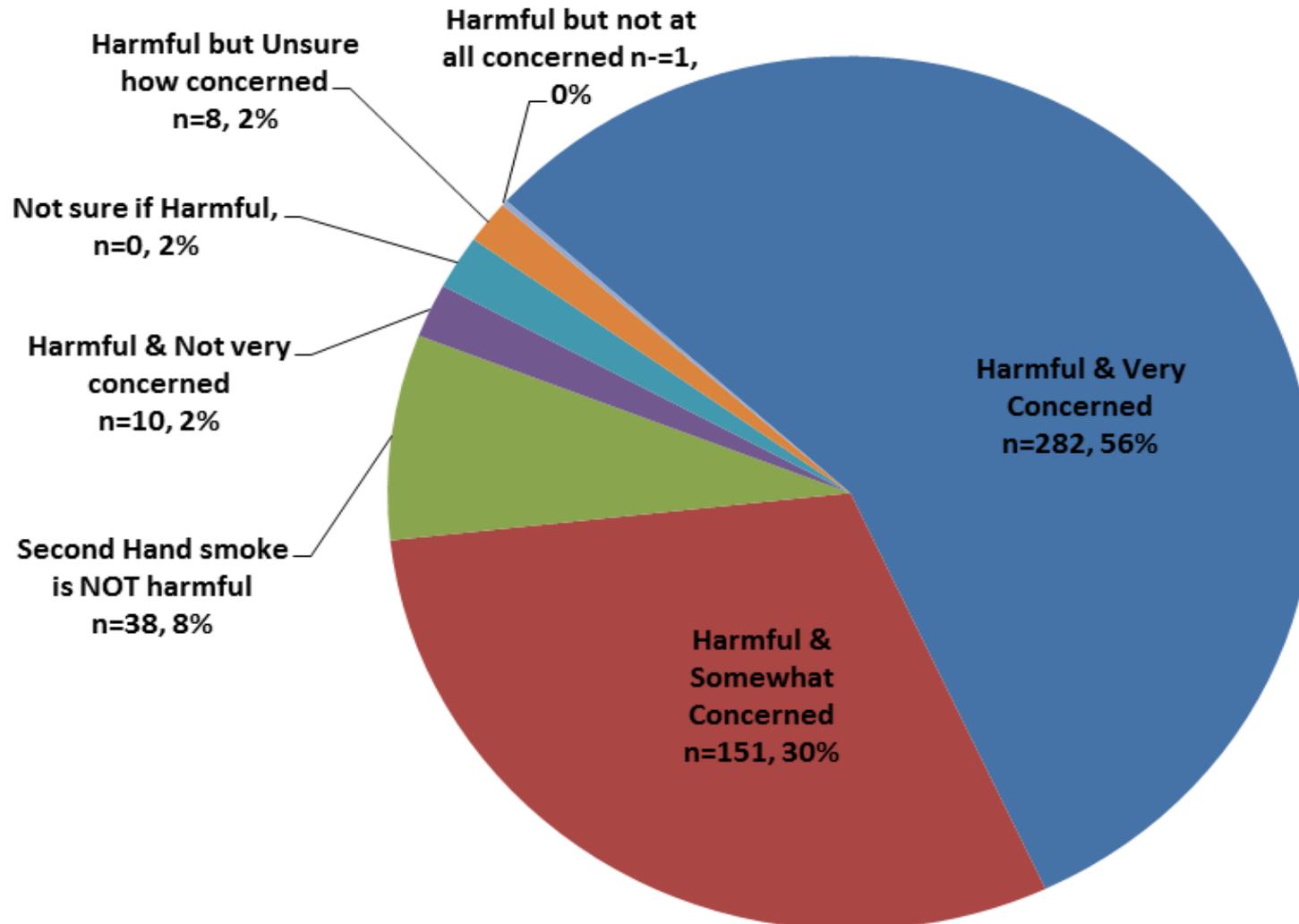
	FEMALES	MALES
HOW MANY PARTICIPANTS EXERCISED IN PAST MONTH ?	74% (n=186)	83% (n=206)
HOW MANY DAYS PER WEEK DID THEY EXERCISE (MEDIAN)	4 days per week	5 days per week
HOW MANY MINUTES PER DAY DID THEY EXERCISE? (MEDIAN)	45 minutes per day	60 minutes Per day
WHAT PERCENTAGE OF EXERCISERS EXERCISED AT THE WELLNESS CENTER?	57% (n=106)	52% (n=107)

BARRIERS TO EXERCISING AMONG ALL PARTICIPANTS



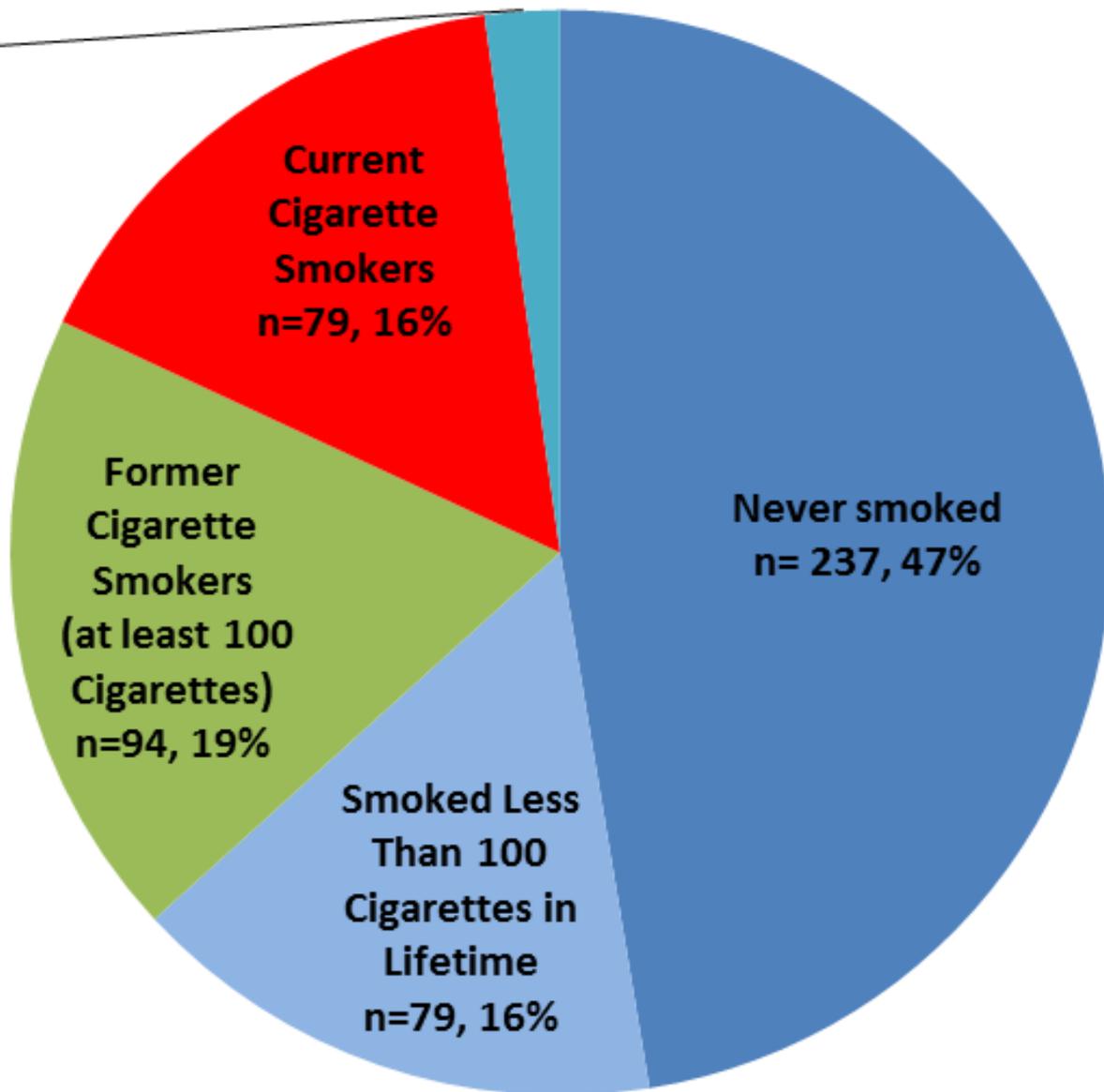
TOBACCO

SECOND HAND SMOKE : HARM CAUSED AND CONCERN ABOUT ITS EFFECT ON HEALTH

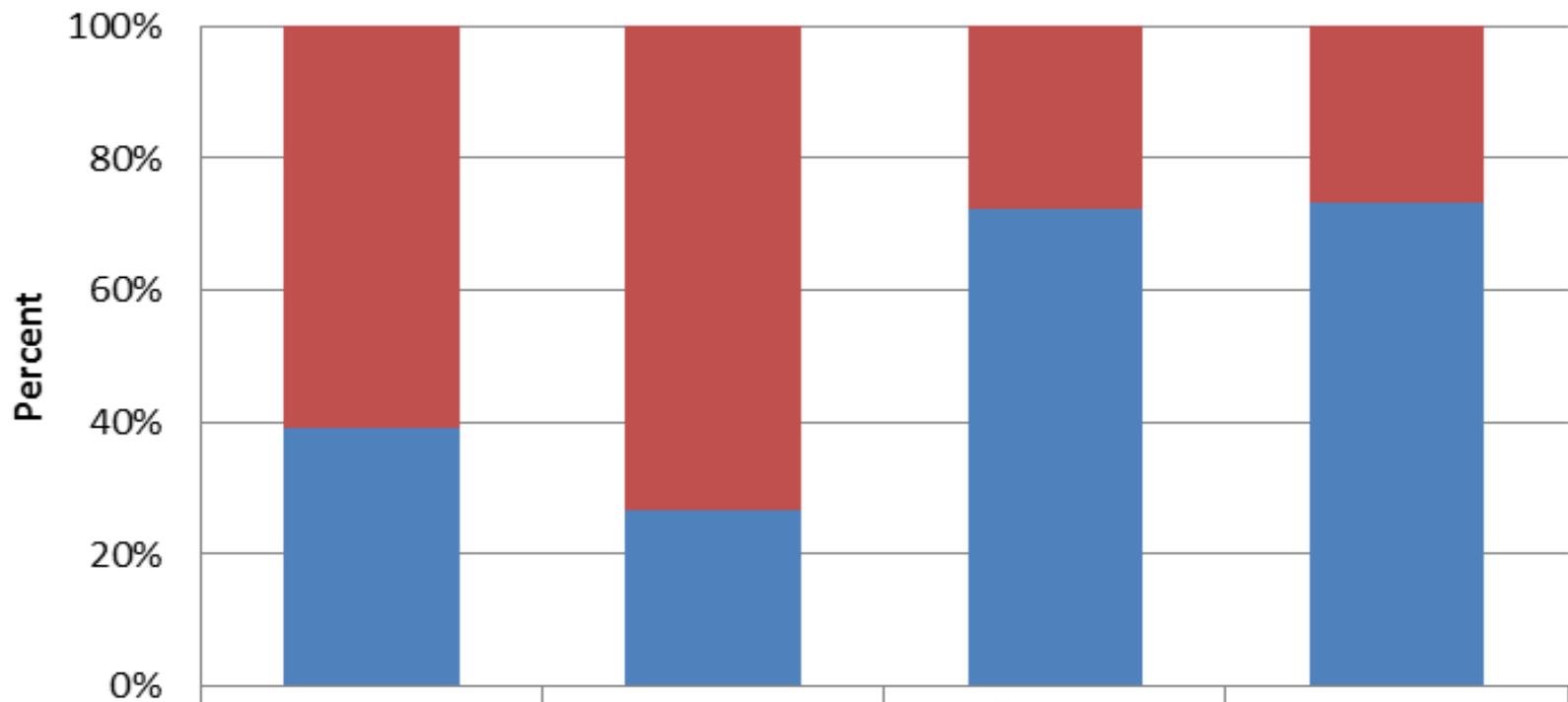


CIGARETTE SMOKING STATUS (n=500)

Smoke
Only in
Kiva
n=11, 2%



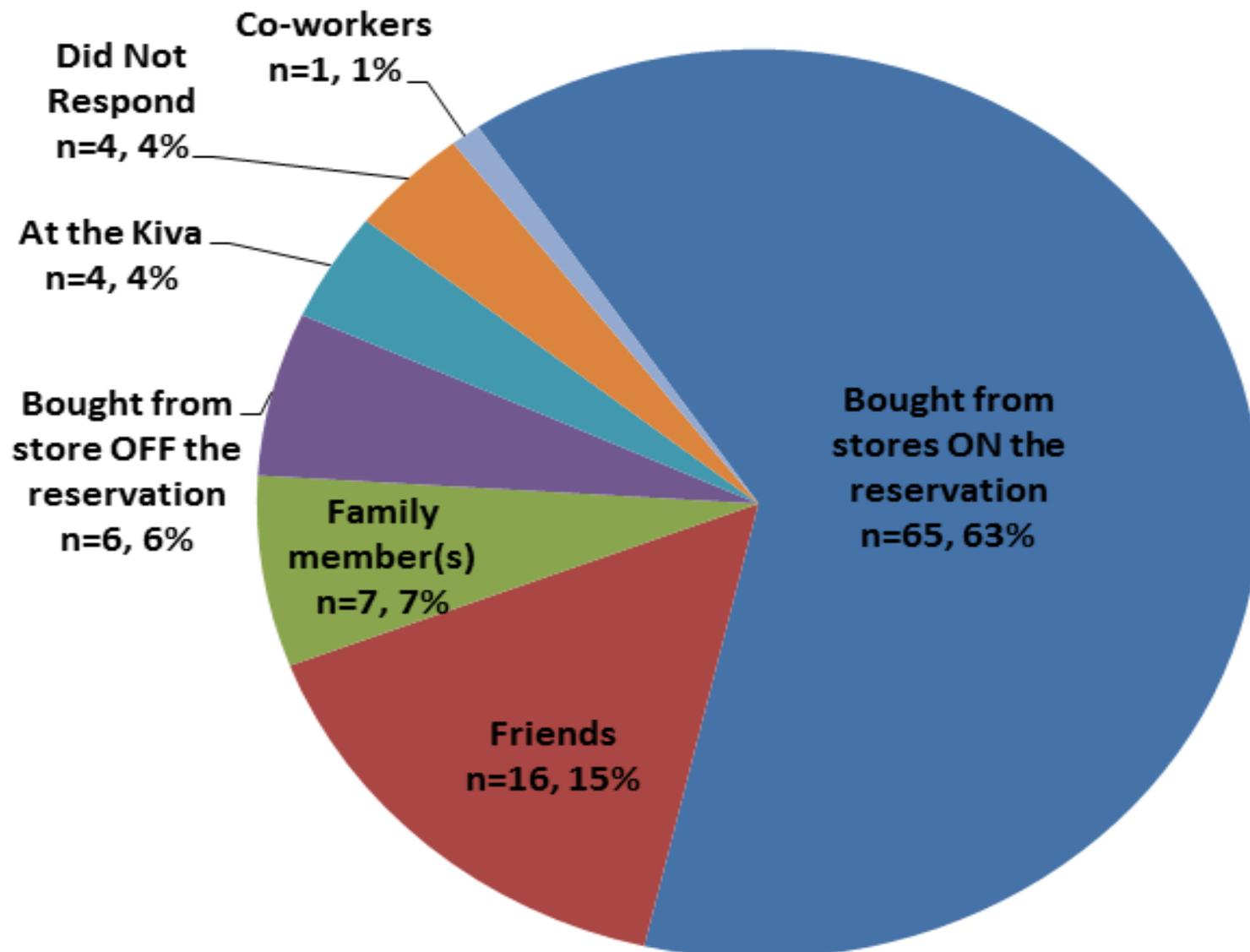
CIGARETTE SMOKING STATUS BY GENDER



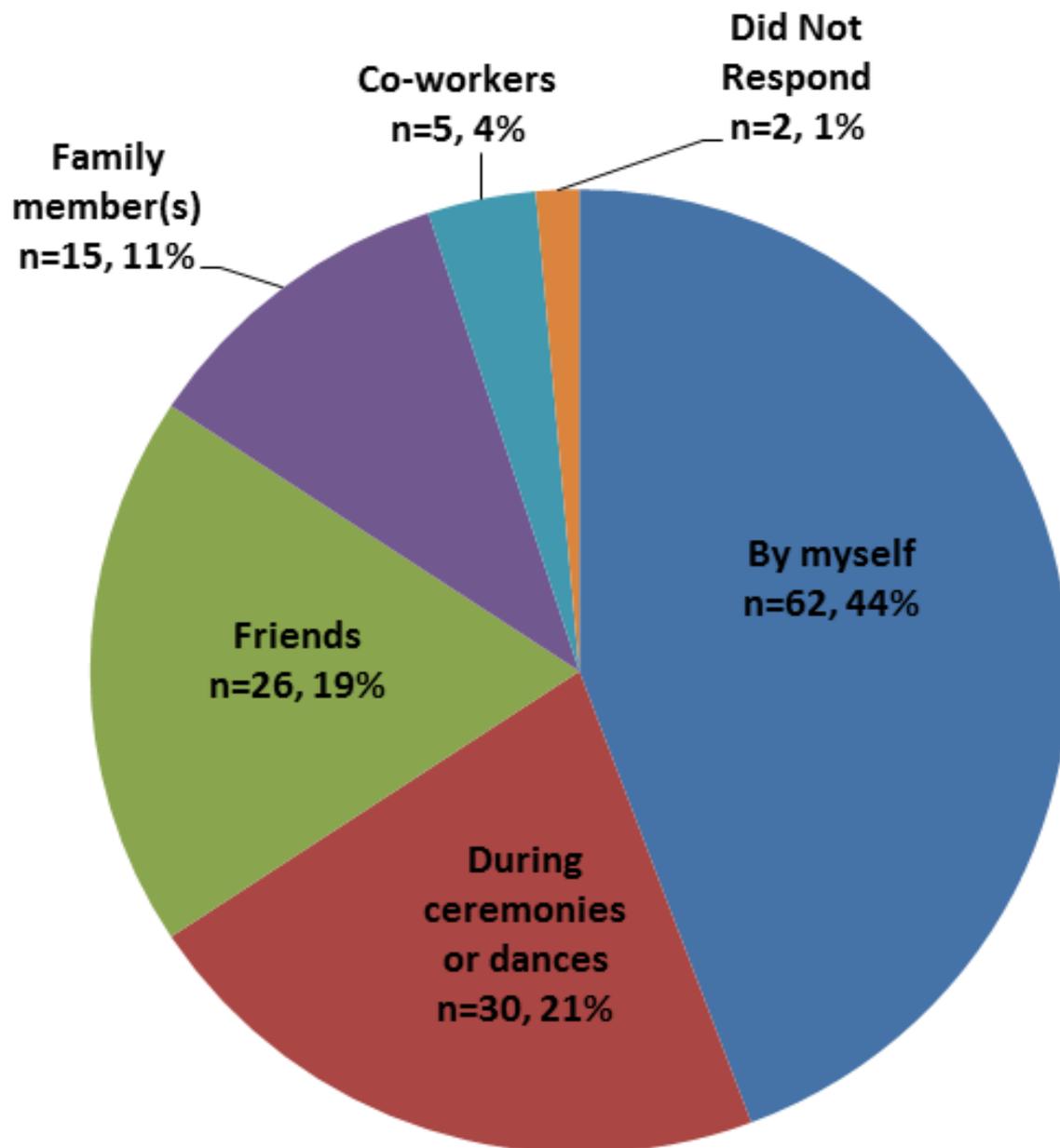
	Never smoked	Smoked Less Than 100 Cigarettes in Lifetime	Former Cigarette Smokers (at least 100 Cigarettes)	Current Cigarette Smokers
■ FEMALES	144	58	26	24
■ MALES	93	21	68	66

Note: 11 current male smokers smoke only in the Kiva

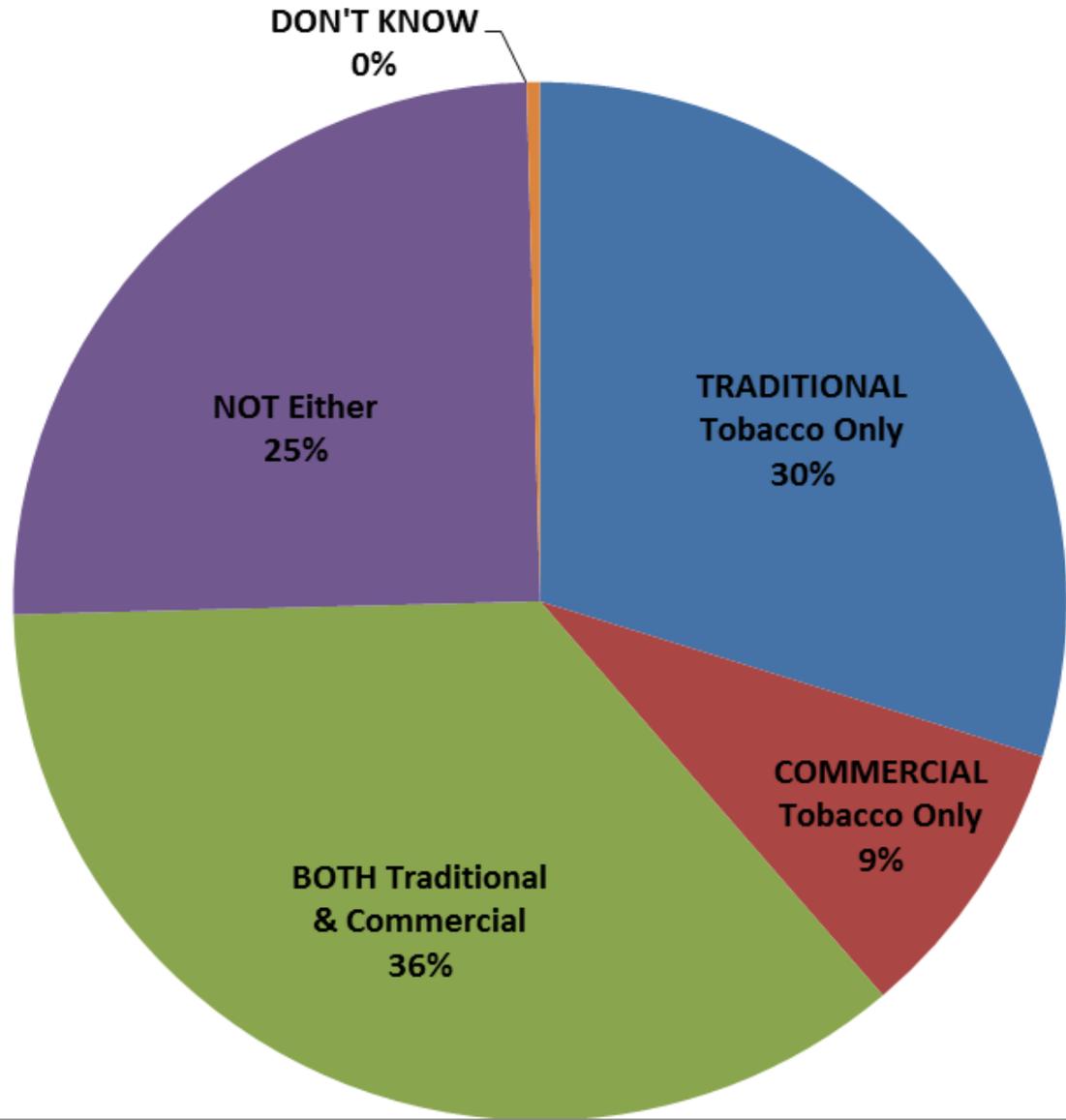
CURRENT SMOKERS: SOURCE OF CIGARETTES



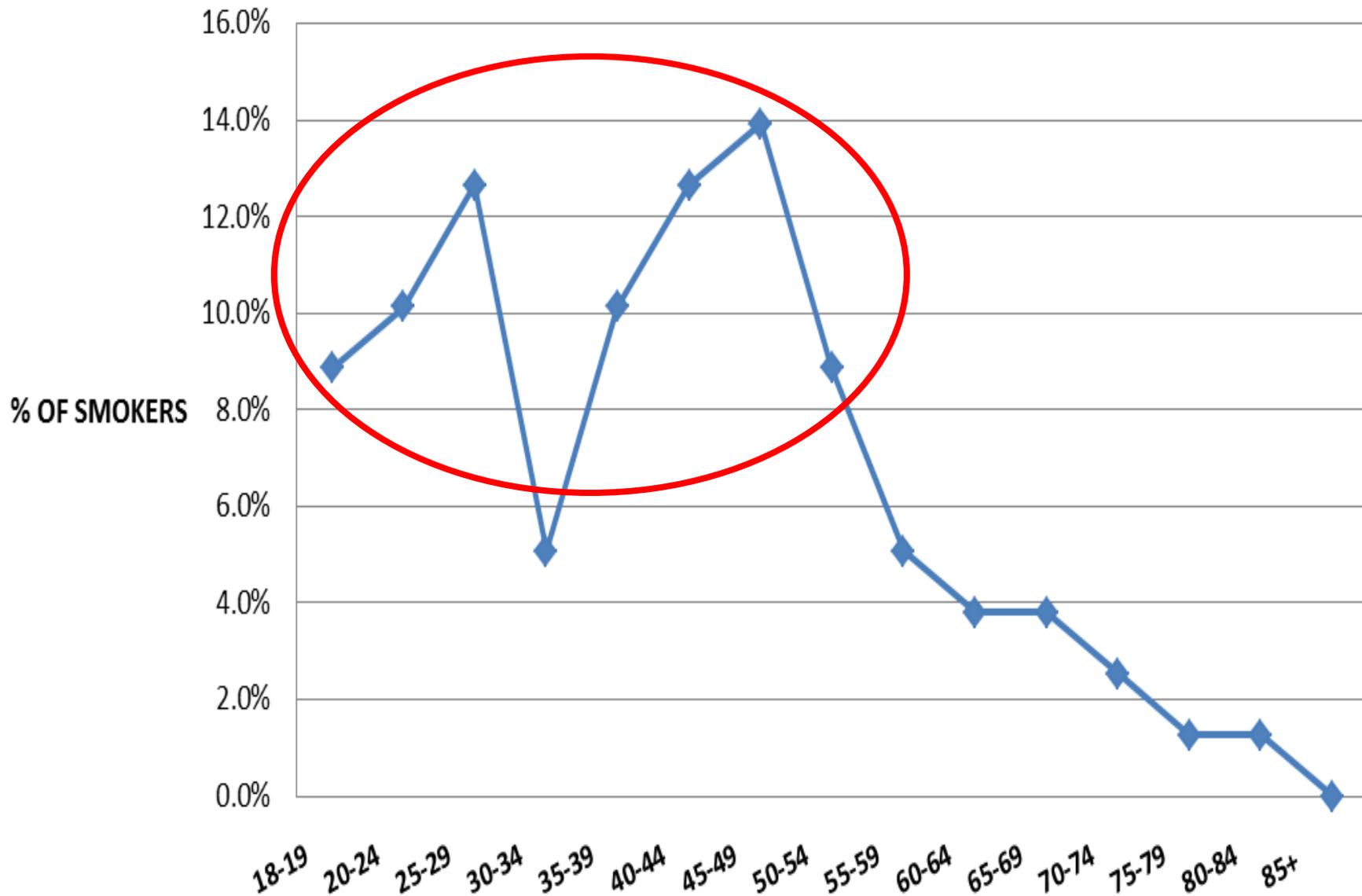
WHEN DO SMOKER'S SMOKE?



TYPE OF TOBACCO USED DURING CEREMONIES (Male Only)



AGE CONCENTRATION OF CURRENT SMOKERS (n=79)

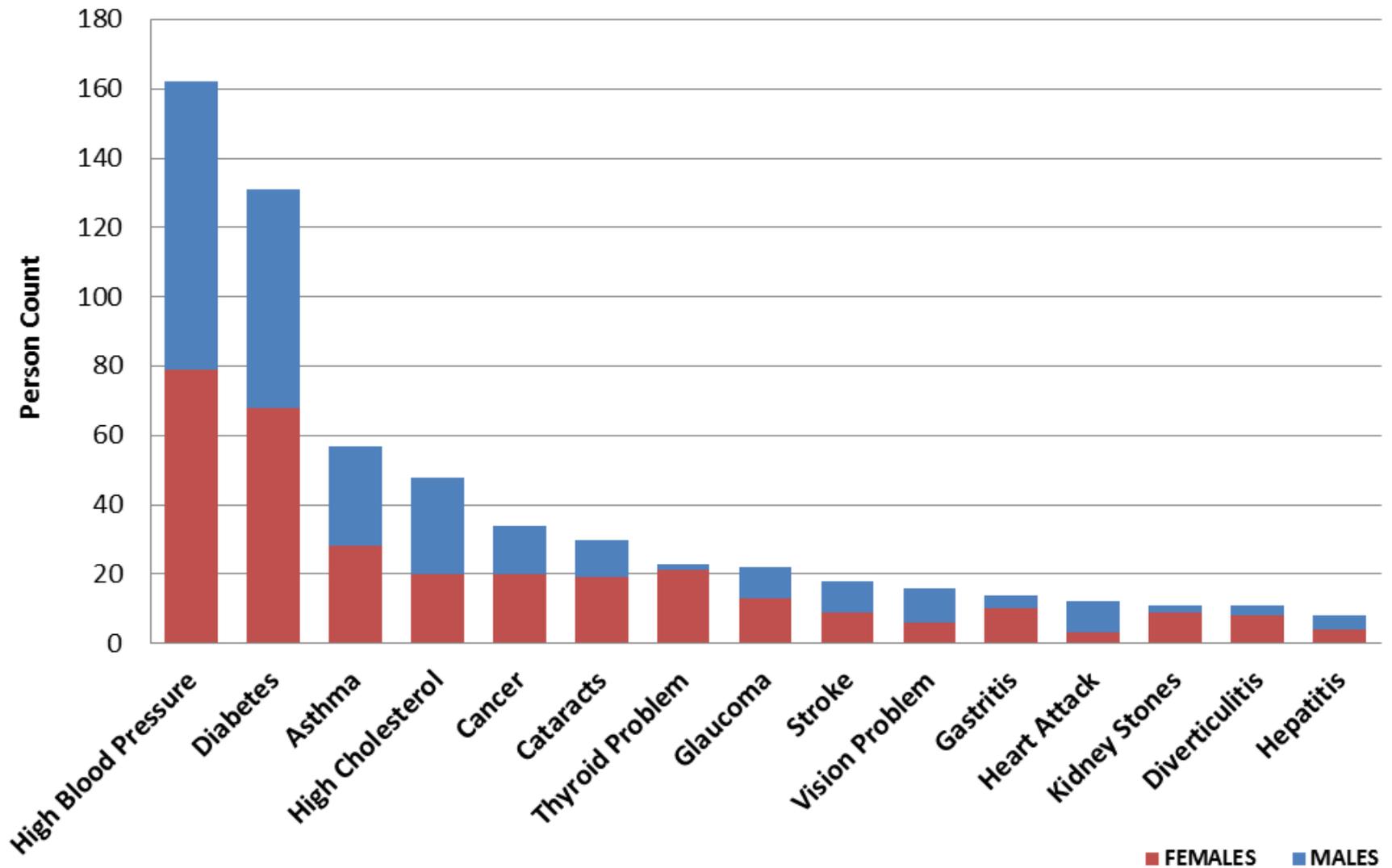


**CHRONIC DISEASES
(EXCLUDING DIABETES)**

Percent of Participants with Chronic Disease/Conditions Affecting 4% or more of the surveyed population

GENDER	FEMALES n=252	MALES n=248	TOTAL n=500
	% of Females	% of Males	% of Total
High Blood Pressure	31.35	33.47	32.40
Diabetes	26.98	25.40	26.20
Asthma	11.11	11.69	11.40
High Cholesterol	7.94	11.29	9.60
Cancer	7.94	5.65	6.80
Cataracts	7.54	4.44	6.00
Thyroid Problems	8.33	0.81	4.60
Glaucoma	5.16	3.63	4.40

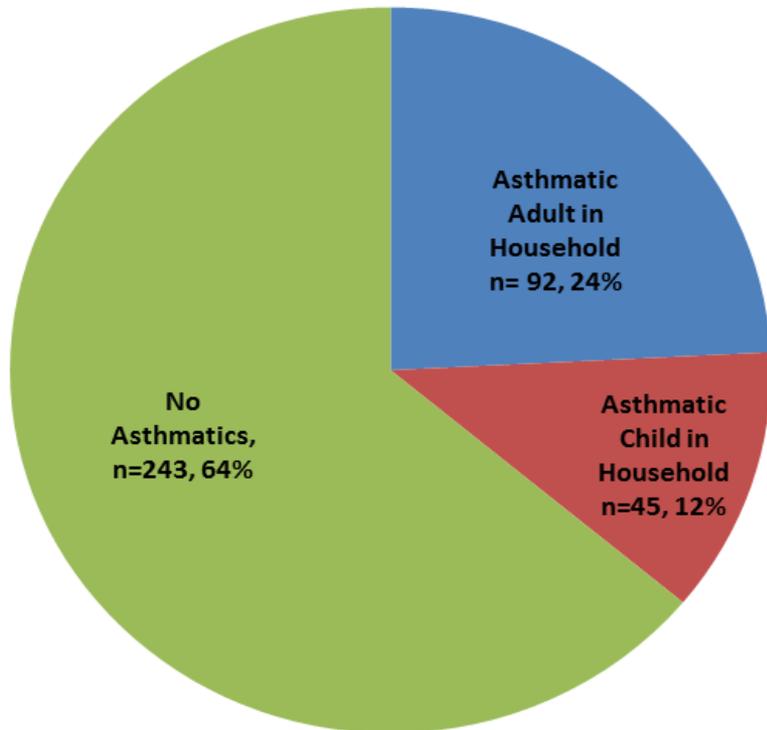
Chronic Diseases affecting >10 persons by Gender



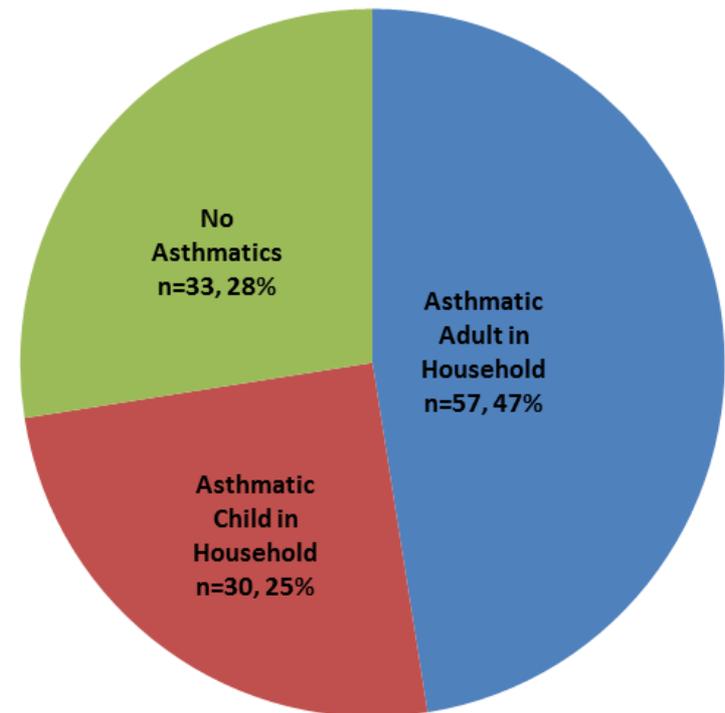
ASTHMA

- 11% (n=57) of Participants report having had an Asthma attack in past year
- 13% (n=63) have undiagnosed asthma

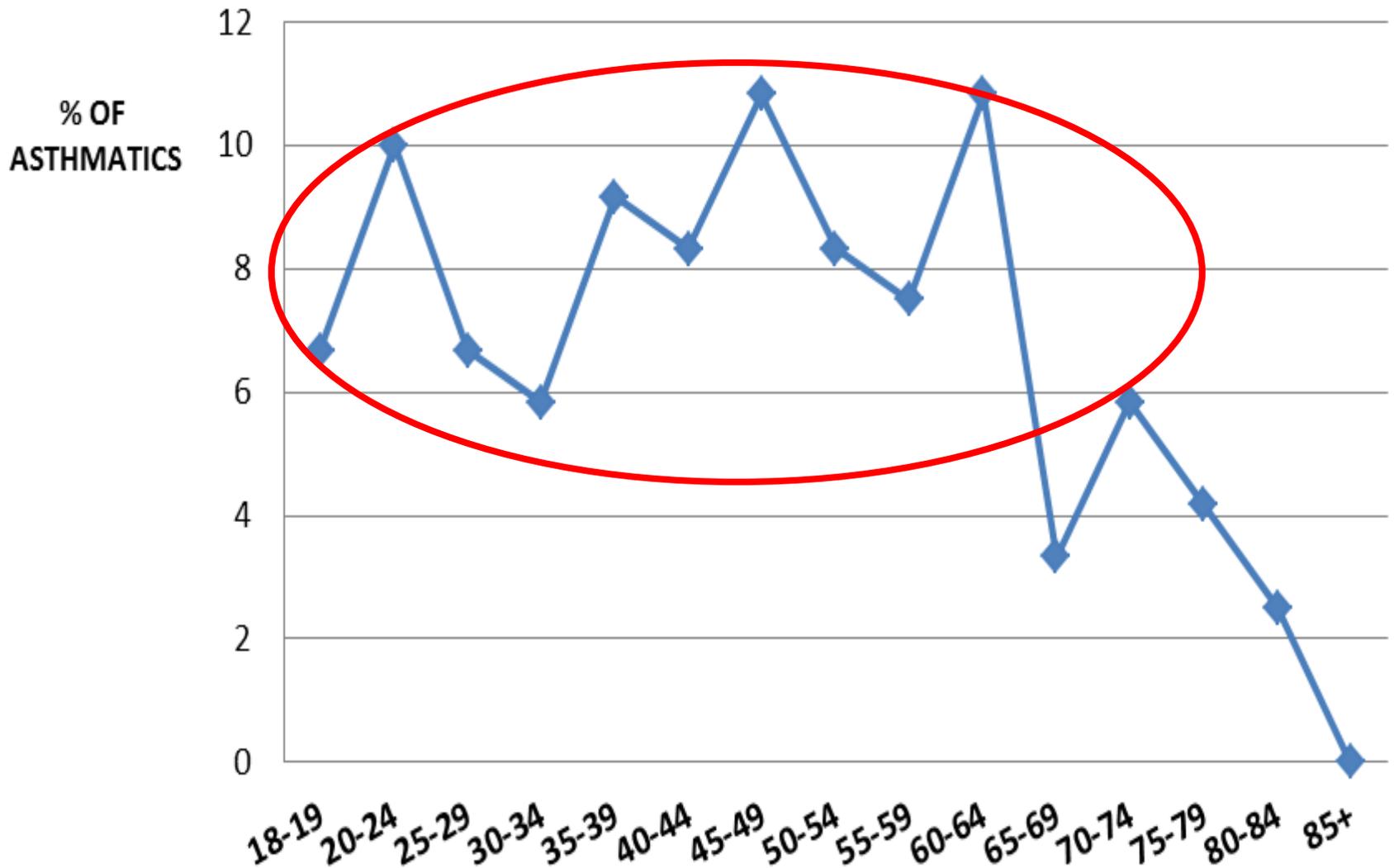
**Prevalence of Asthma in Households
Non-Asthmatic Participants**



**Prevalence of Asthma in Households
Asthmatic Participants**

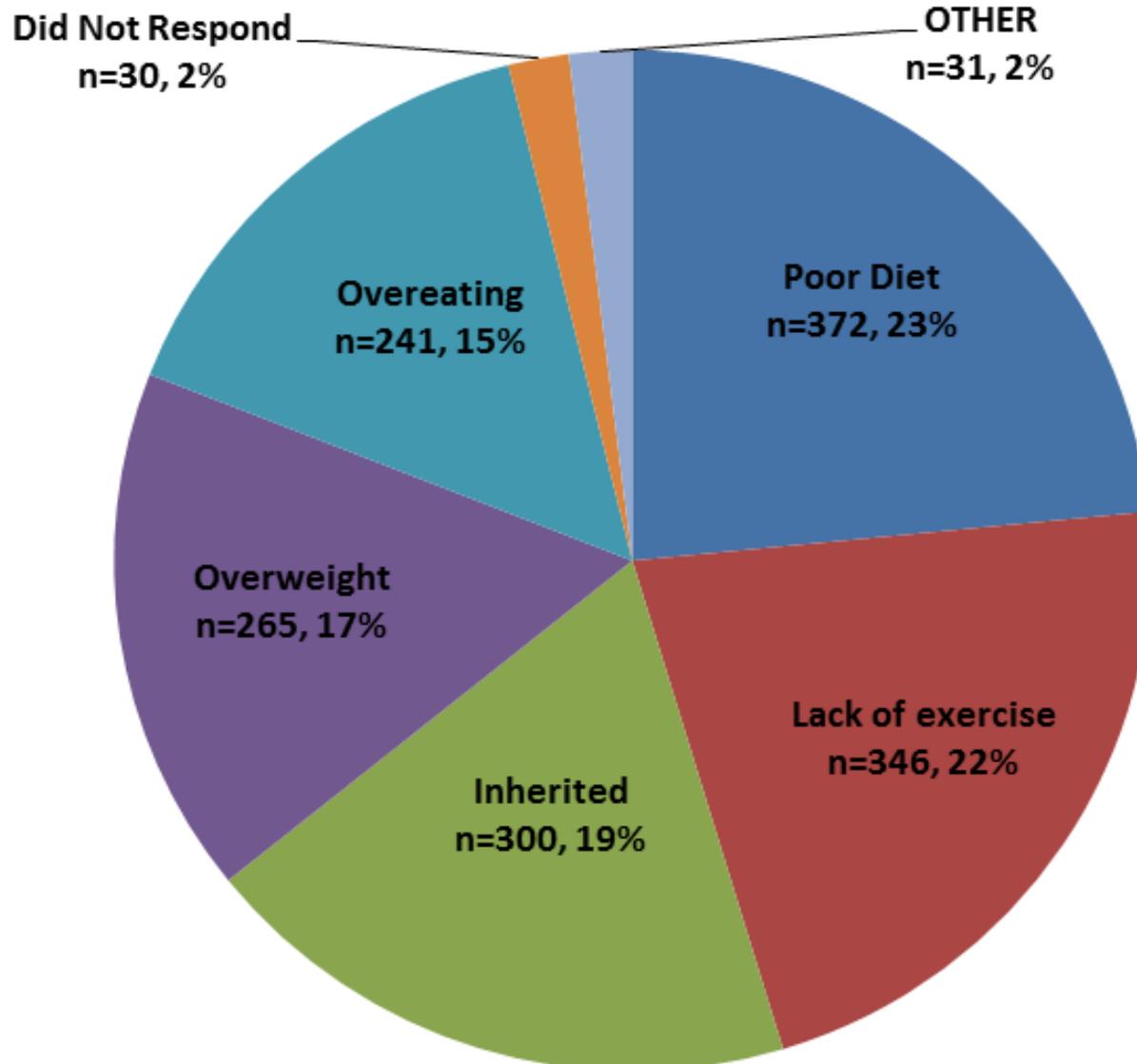


AGE CONCENTRATION OF THOSE WITH DIAGNOSED AND UNDIAGNOSED ASTHMA (n=120)



DIABETES

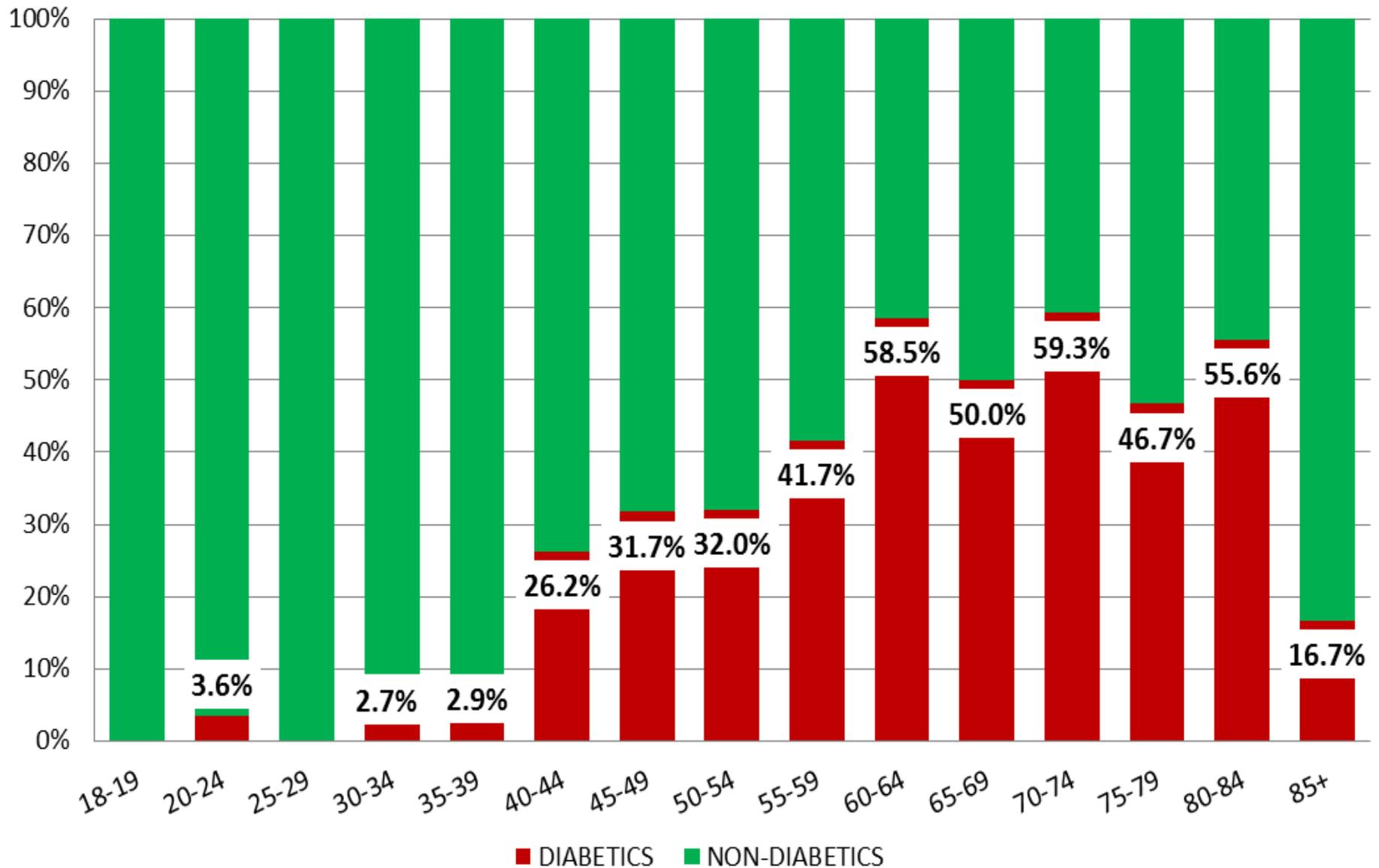
CAUSES OF DIABETES (n=1,585) REPORTED BY ALL 500 RESPONDENTS



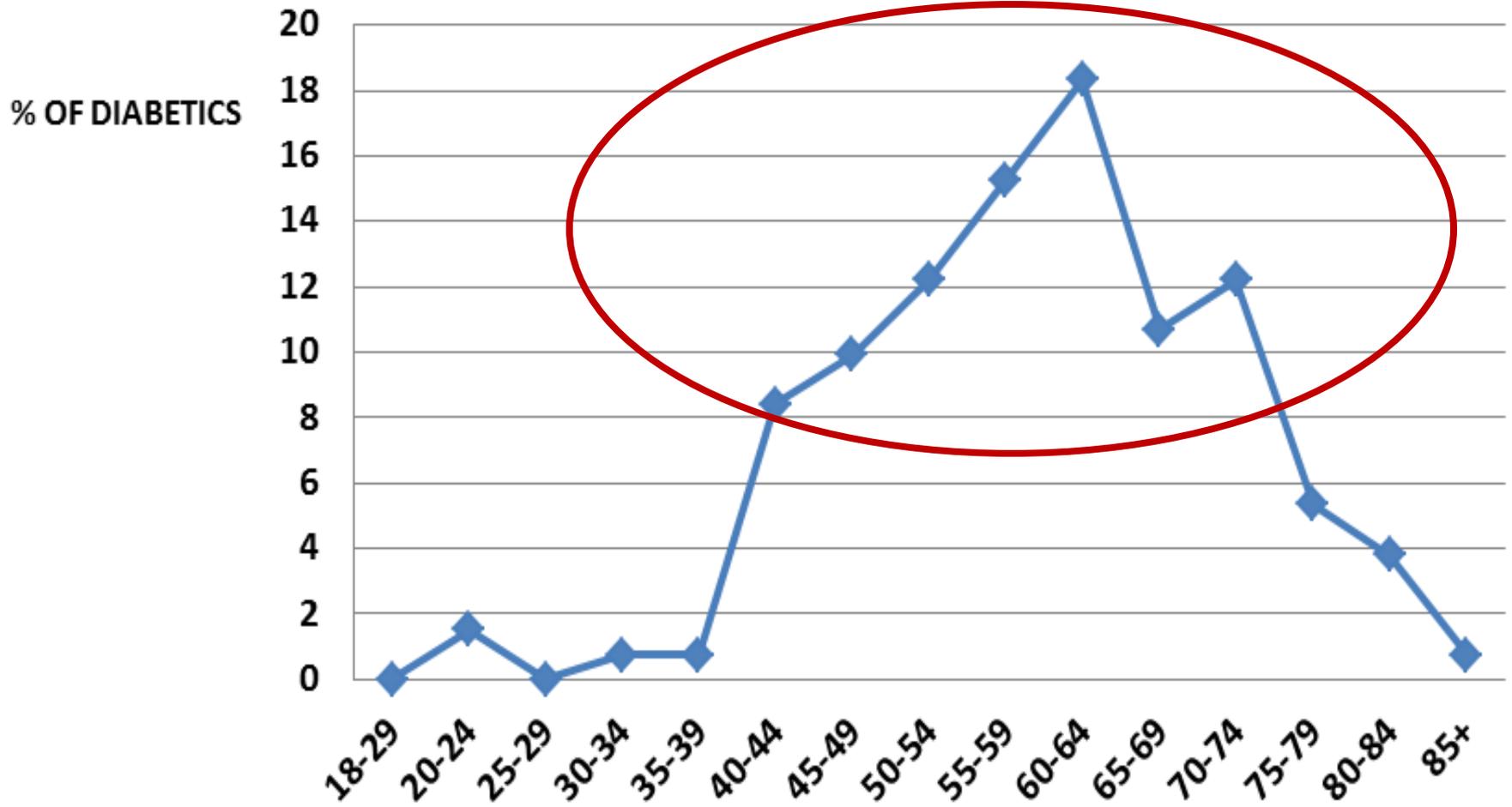
WHO HAS DIABETES?

- 26% (n=131) of those surveyed
- Gender
 - 26% of Males
 - 27% of Females
- Age
 - All ages: 23-88 years old
 - On average, older
 - Average age Diabetics: 60
 - Average Age non-Diabetics: 42

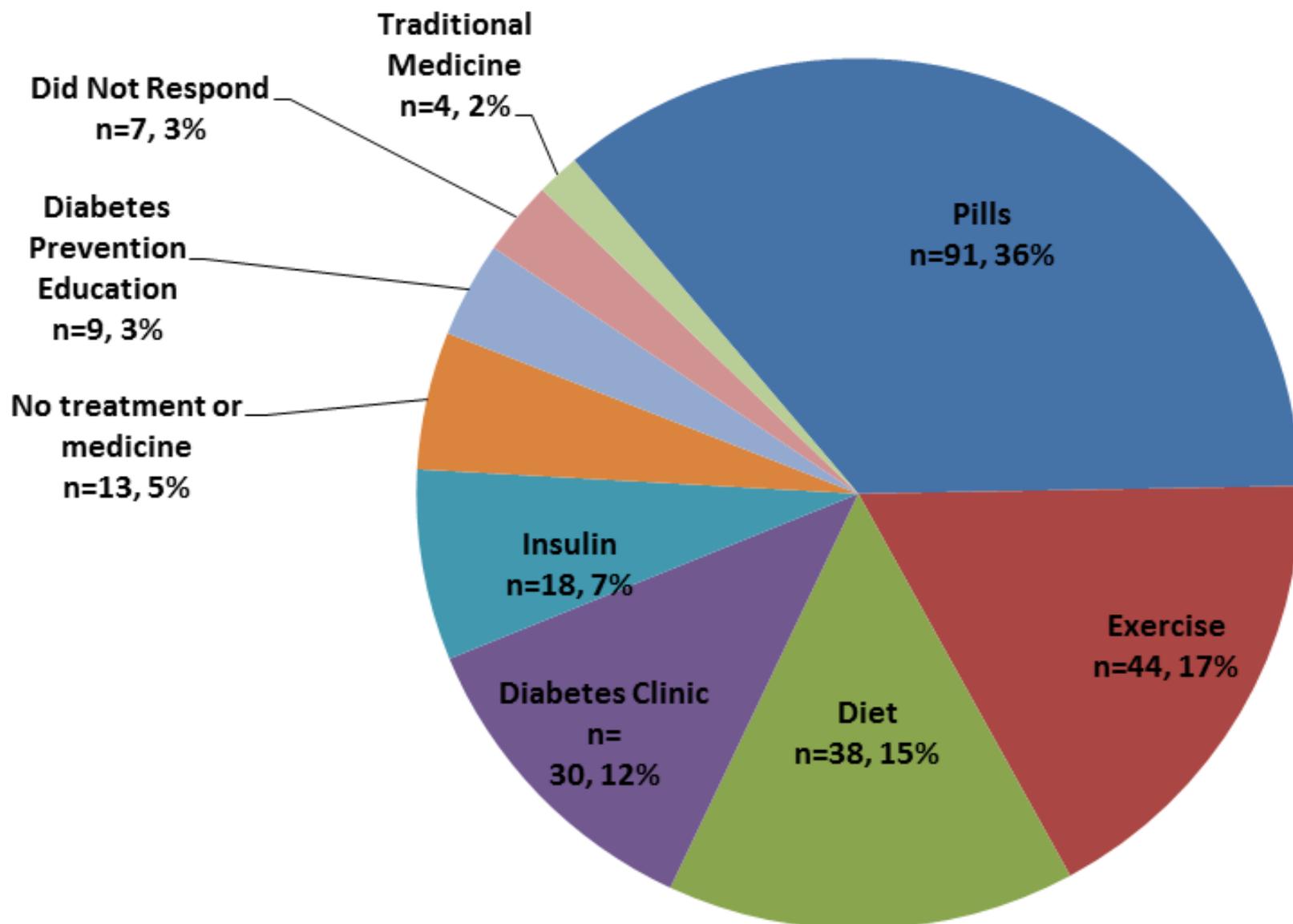
PERCENT OF DIABETICS WITHIN AGE GROUP



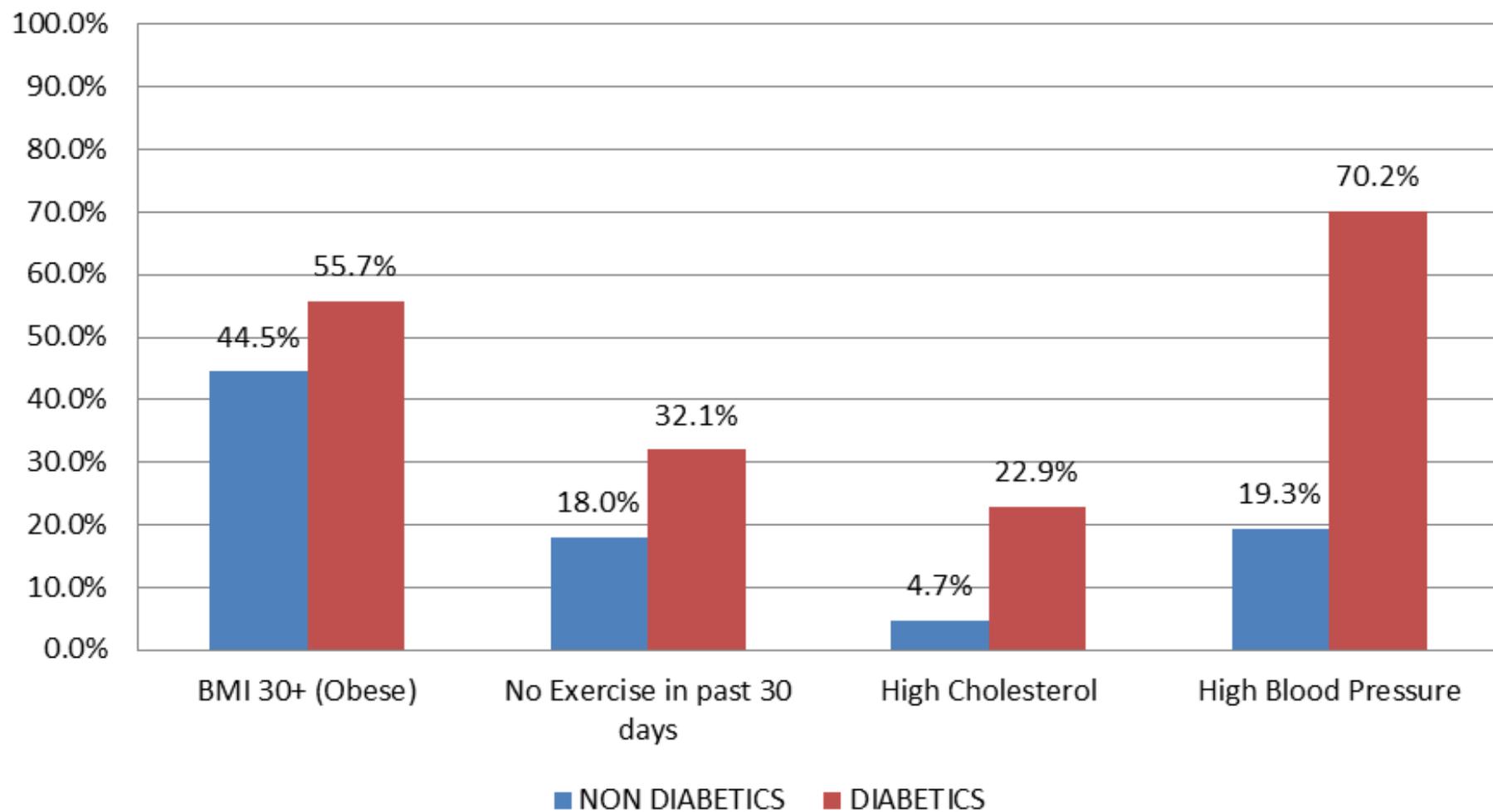
AGE CONCENTRATION OF DIABETICS (n=131)



TREATMENTS (n=254) USED BY DIABETICS



Comparisons of Health Status Between Diabetics and Non-Diabetics



**SPECIAL THANK YOU TO
ALL THE INTERVIEWERS
AND PARTICIPANTS**

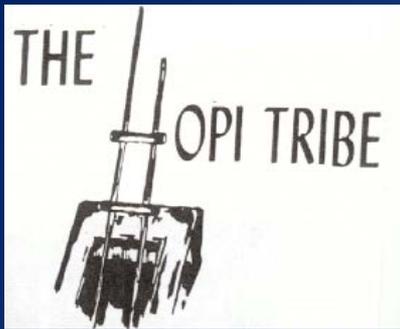
THANK YOU
FOR MAKING THIS SURVEY POSSIBLE
(PEOPLE LISTED IN ALPHABETICAL ORDER)

HOPI TRIBAL COUNCIL
HOPI ,UA, NAU LAWYERS
HOPI, UA, NAU FINANCE PEOPLE
OUR FUNDERS: NACP AND ABRC

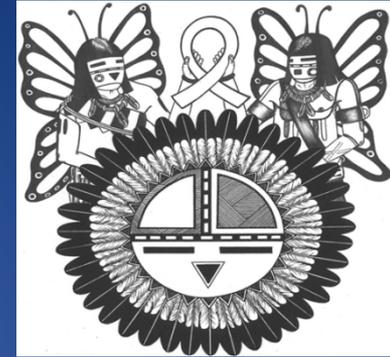
HOPI: Delores Ami, Joyce Hamilton, Lori Joshweseoma, Eldon Kalemisa, Mary Polacca , Kassondra Yaiva

UA: Dave Alberts, Sylvia Brown, Felina Cordova, Robin Harris, Susan Hanson, Jen Prissel, Jason Roberge, Kathy Saboda, Neil Weinstein

NAU: Regina Eddie, Erelida Gene, Laura Huenneke, Maria Jackson, Kwaayesnom Onsaе, Priscilla Sanderson, Rebecca Scranton



Hopi Cancer
Support Services



Namitunatya



**THANK YOU
FOR
LISTENING**



NACP



QUESTIONS?

Arizona
Biomedical
Research
Commission