

Detroit Oral Cancer Prevention Project

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Research Strategies to Reduce the Burden of Oral Cancer

- Basic science research
 - Genetic markers for very early detection
 - Diagnosis
 - Treatment modalities
 - Determinants of tumor initiation, growth, and response to treatment
- Clinical research (surgery, radiation, chemotherapy, new targeted approaches)
- Oral health promotion and prevention
 - Preventive Marketing

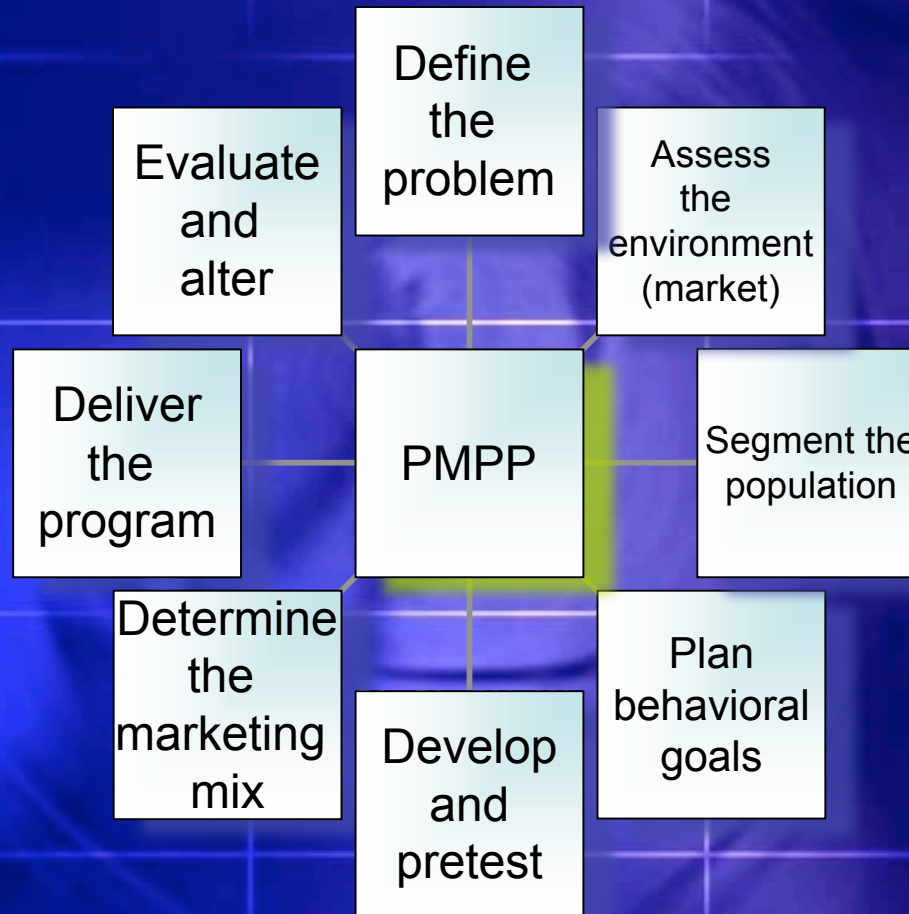
Research Strategies to Reduce the Burden of Oral Cancer

- **Basic science research**
- **Clinical research**
 - Oral health promotion and prevention

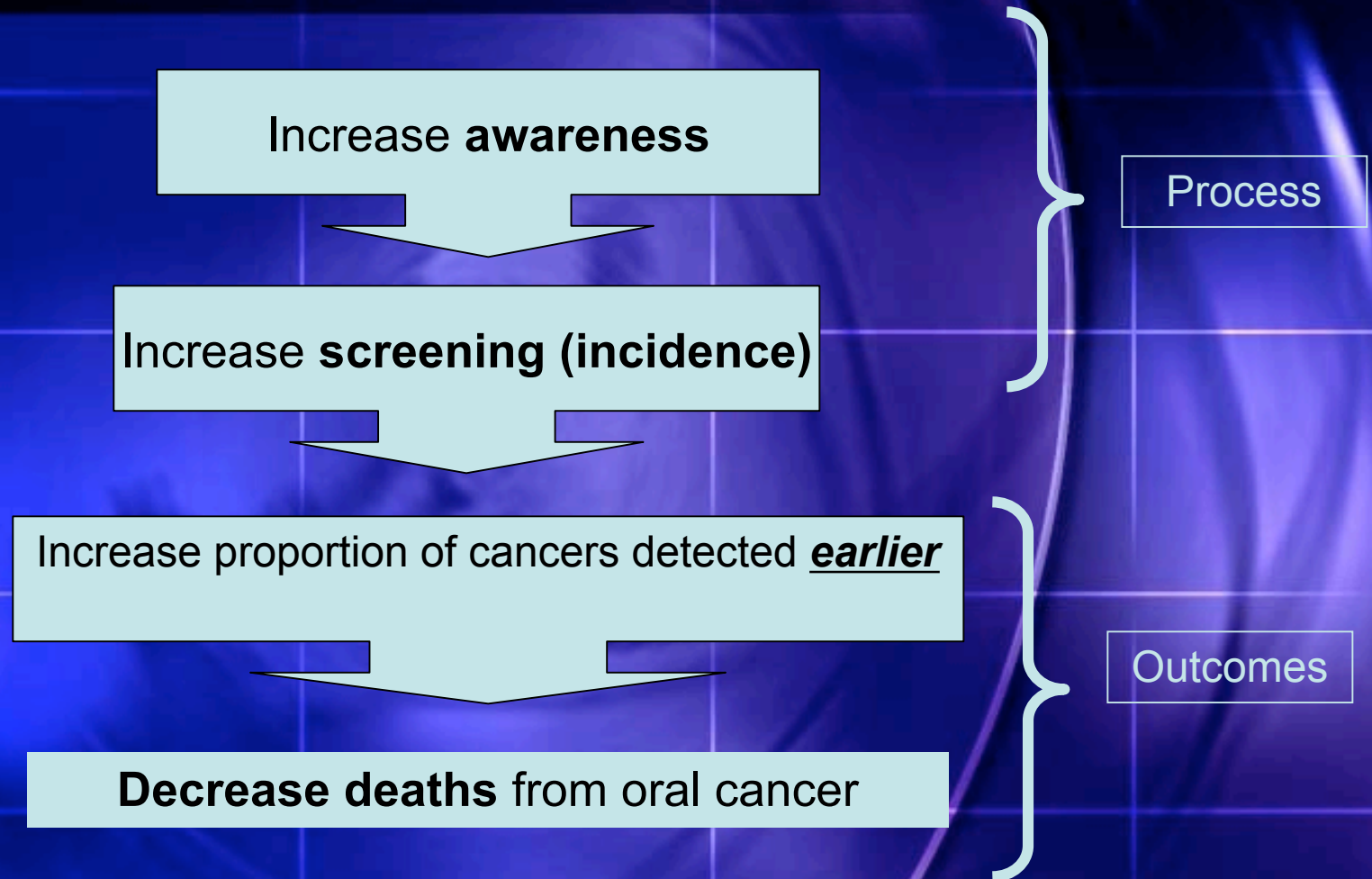
Prevention Marketing

- Employs principles from three disciplines: behavioral sciences, social marketing, and community development
 - Why people behave as they do?
 - How to change behaviors?

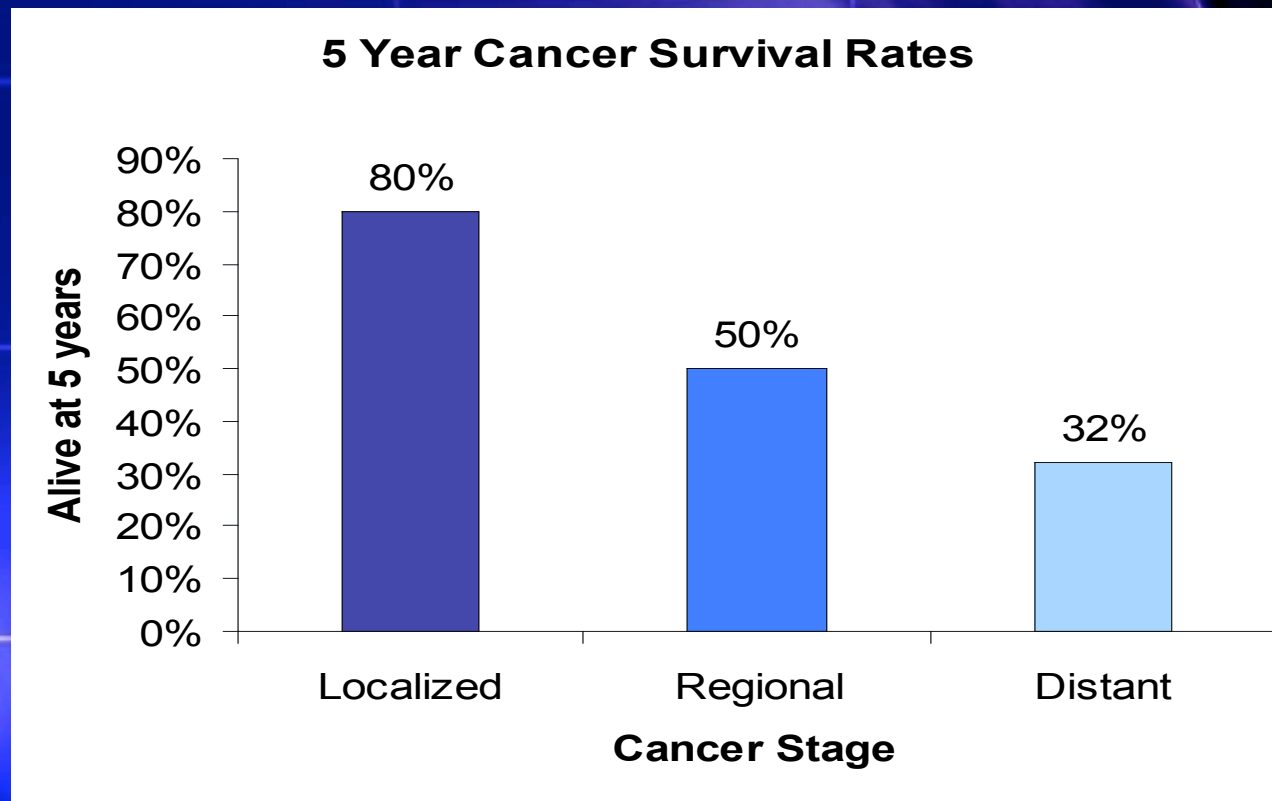
Prevention Marketing Planning Process (PMPP)



Outcomes of the Detroit Oral Cancer Prevention Project



Early Detection



Push and Pull

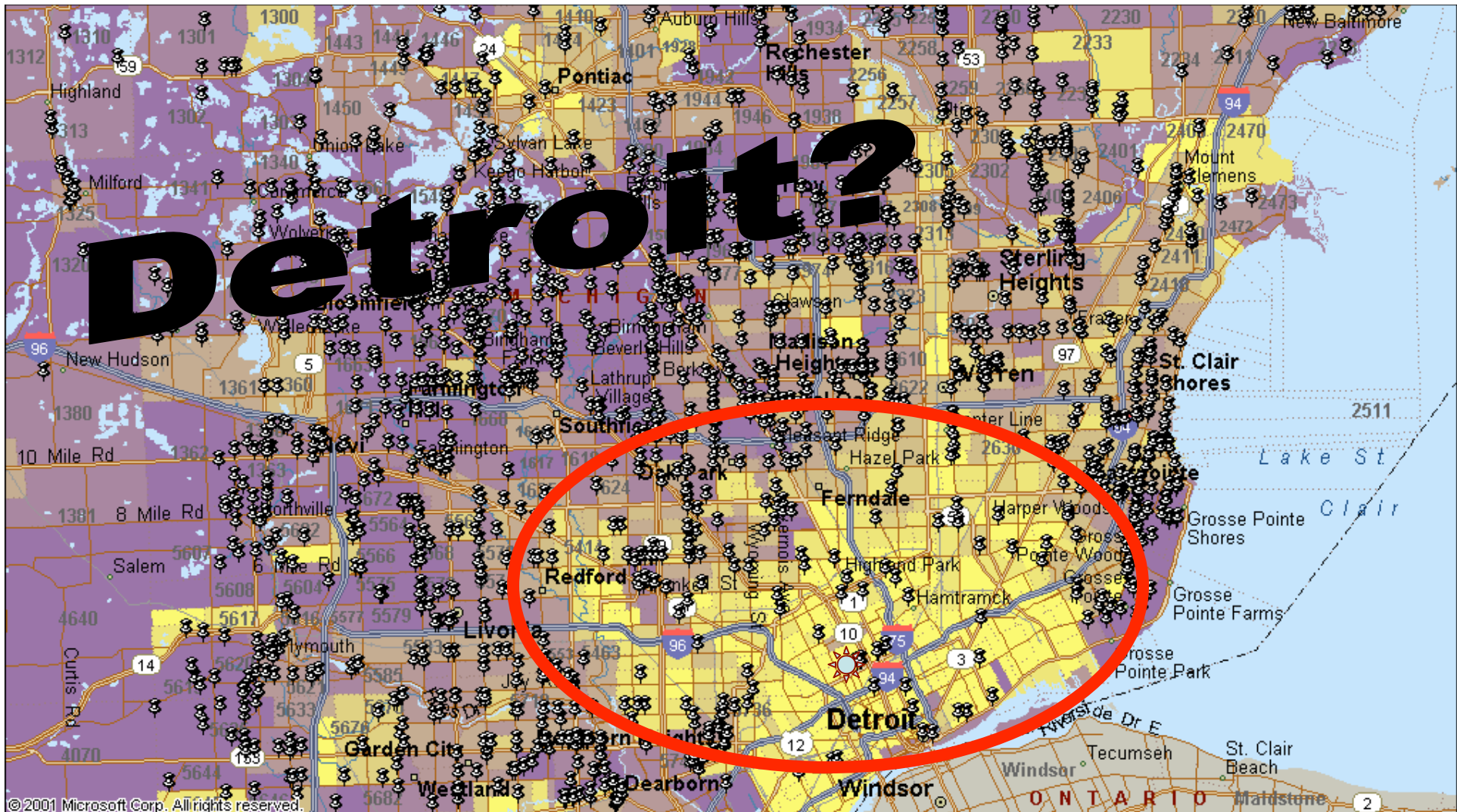
- **Push:** focuses on increasing professional awareness and adoption of a particular behavior.
E.g. Detailing, CE, ads in professional journals
- **Pull:** focuses on patients and aims to create “consumer” demand for a product or behavior.
E.g. TV ads for Nexium

Detroit Oral Cancer Prevention Project Action and Service Research

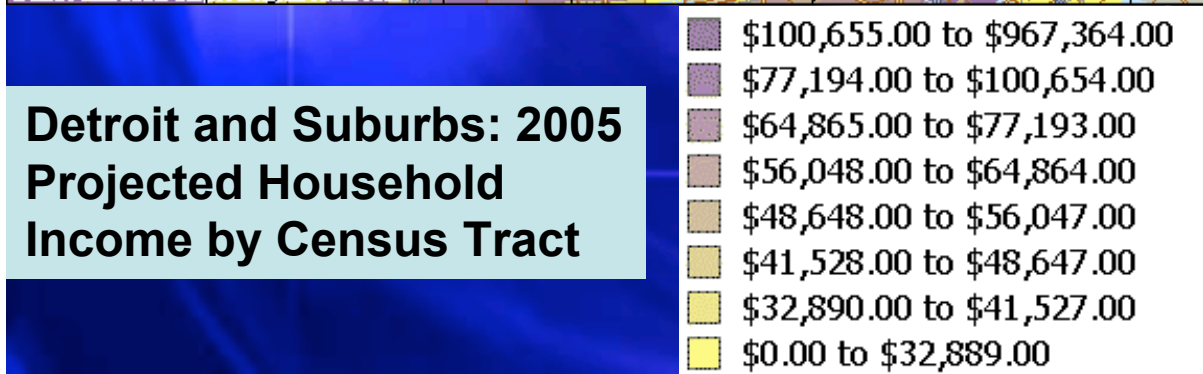
- Intervention city: Detroit
- 5-year project
- Increase awareness of oral cancer and promote early screening through:
 - Community education campaign
 - Media campaign (Billboards, radio, newspaper)
 - Toll-free information line (1-877-7-CHECKED)
 - Screening clinic(s)
 - Biopsy clinic
 - Oral surgery clinic
 - Provider education (Online CDE and CME)

Comparison Counties

- Berrien, Calhoun, Genesee, Ingham, Jackson, Muskegon, and Saginaw
 - After Wayne county, these counties have the highest concentration of African-Americans in Michigan
- CE only



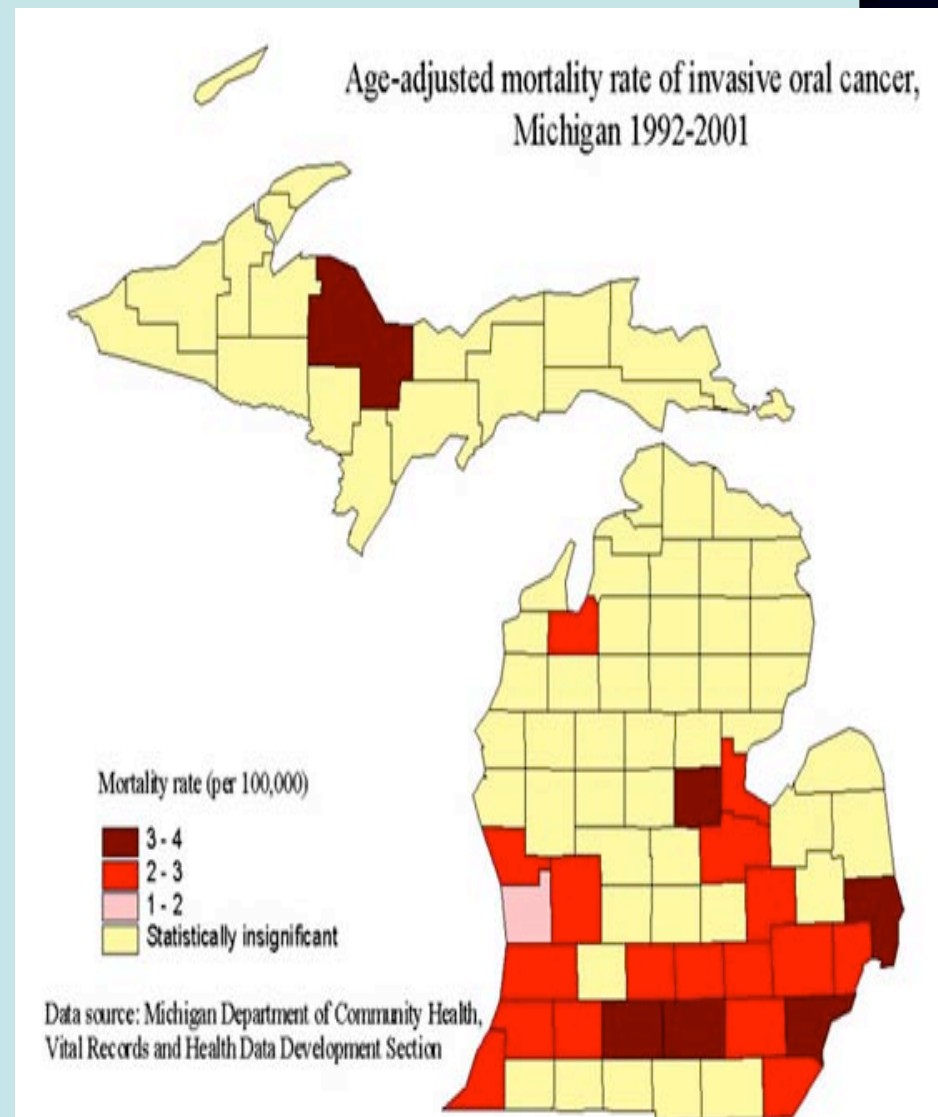
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Push pins are private practice dentists.

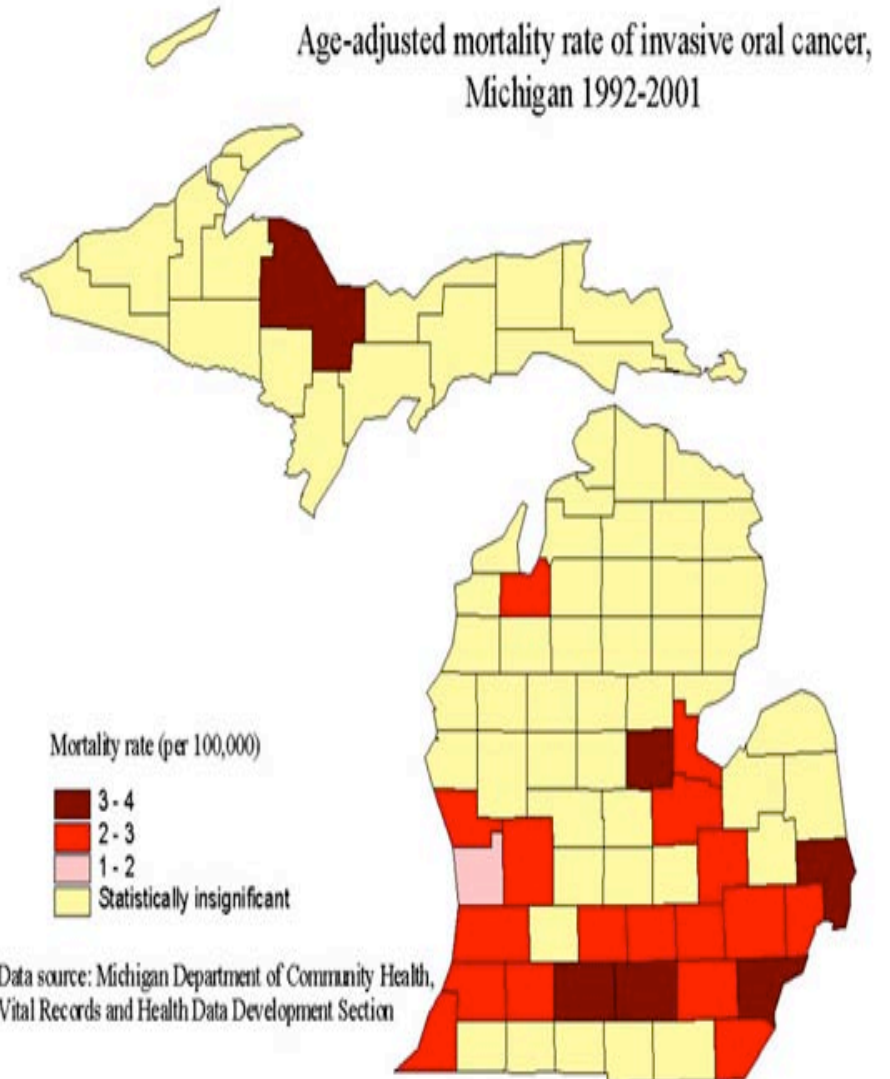
Why Detroit?

- Between 1993 and 2002 there were **2,594 deaths** due to invasive oral cancer in Michigan.
- **27% of all deaths** related to oral cancer were clustered in Detroit/Wayne County.
- **City of Detroit** had a mortality rate that was higher than that of the state (4.2/100,000).

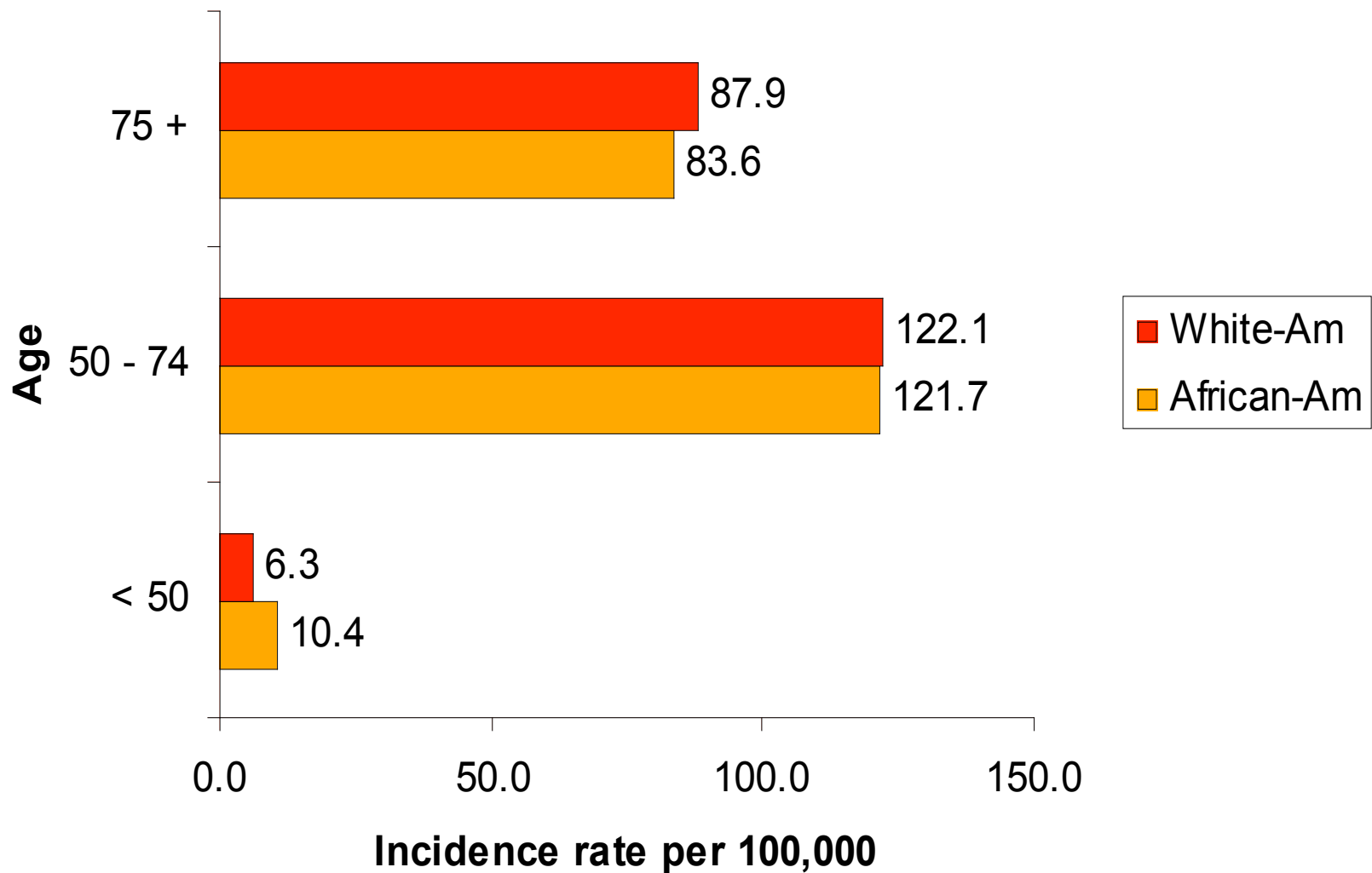


Why Detroit?

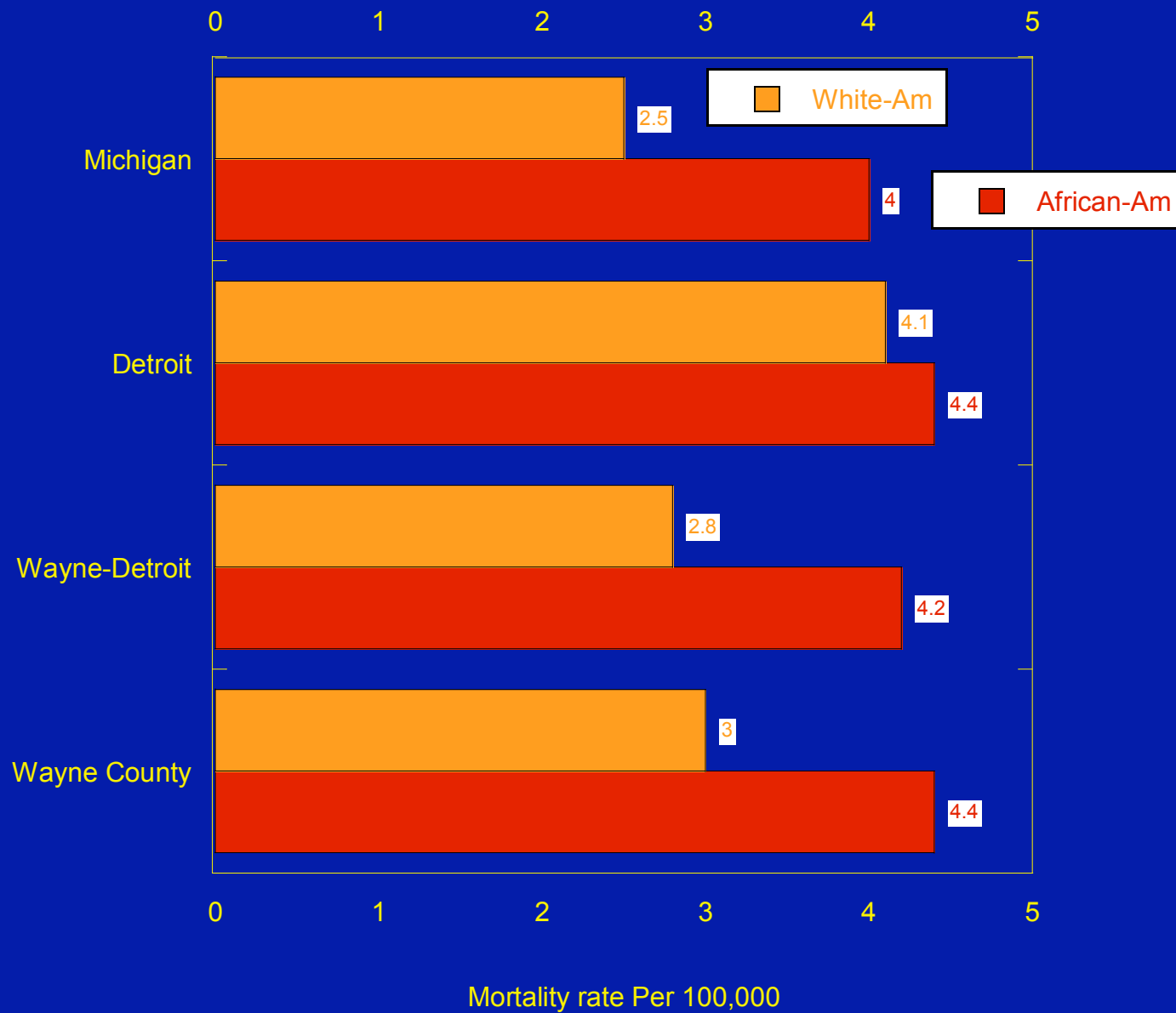
- **African Americans** had a 1.6 higher death rate from oral cancer in Michigan than white Americans.
- Early-stage detection: Detroit was **28.3%** and Michigan was **37.6%** in 2000-2002.
- Oral cancer is the **4th most common cancer** among African-American men in Detroit after cancers of the 1) prostate, 2) lung and bronchus, and 3) colon and rectum.



Incidence rate in White and African-American Males in Detoit, 1993-2002.



Mortality Rate in Michigan, Wayne County, and Detroit, 1993-2002.



Five-year Survival Rates in Michigan

Year of Diagnosis	All Races		White		Black	
	Rate		Rate		Rate	
1993	51.8		55.0		32.7	
1994	54.6		56.6		37.7	
1995	57.8		60.8		39.4	
1996	52.9		55.0		39.3	
1997	56.6		59.2		39.1	
1998	54.6		56.8		34.9	

Media Campaign

	Round	Dates	Radio Ads	Billboards	Newspaper Ads
Year 1	1	March 05 - August 05	210 (60-sec spot on 2 stations for 2 3-week flights – 35 spots per week)	25 (continuous showing for 20 weeks)	10 (every other week in one publication)
	2	September 05 - November 05	79 (66 60-sec and 13 free PSA spots on 1 station for 1 4-week flight – 15 spots per week)	15 (continuous showing for 6 weeks)	0 (cancelled remainder of buy as callers weren't identifying newspaper ads as source of call)
Year 2	1	January 06 – April 06	95 (60-sec spot on 2 stations for 2 6 week flights – 21 spots per week)	15 (continuous showing for 8 weeks)	
	2	May 06 – August 06	136 (60-sec spot on 2 stations for 1 6-week flight – 21 spots per week)	15 (continuous showing periods)	
	3	September 06 - November 06	80 (60-sec spot on 2 stations for 1 6-week flight – 21 spots per week)	2 (continuous showing for 6 weeks)	

Toll-Free Information Line

1-877-7-CHECKED or 1-877-724-3253

- Operated by the Neighborhood Services Organization
- 24 hours
- Information
- Consent
- Questionnaire
- Real-time scheduling for screening
 - 1164 calls as of 11/28/06



ORAL CANCER?

GET CHECKED!

IT'S PAINLESS & FREE.

1.877.7 CHECKED





CAN'T TASTE

**ORAL
CANCER?**

GET CHECKED!

IT'S PAINLESS & FREE.

1.877.7CHECKED



CAN'T SING

**ORAL
CANCER?**
GET CHECKED!

IT'S PAINLESS & FREE.

1.877.7 CHECKED



**BEAT
ORAL CANCER!**

GET CHECKED! IT'S PAINLESS & FREE. 1.877.7CHECKED



KNOCK OUT

ORAL CANCER!

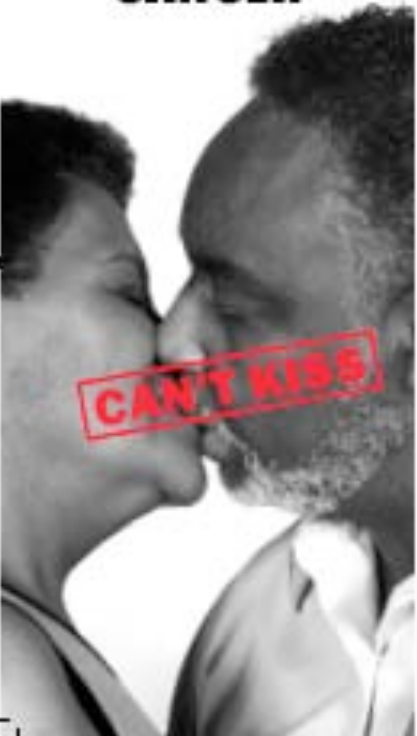
GET CHECKED! IT'S PAINLESS & FREE.

1.877.7 CHECKED

Screening Brochure

One of the many **EFFECTS** of

ORAL CANCER



1.877.7CHECKED

Did you know?

- African-American men in Detroit have one of the highest rates of oral cancer in the U.S.
- African-American men over age 30 have the greatest risk.
- Each year, 20,000 Americans are diagnosed with oral cancer and nearly 8,000 die from it.
- Oral cancer is the sixth most common cancer.
- Smoking and heavy drinking increase your chances of getting oral cancer.
- Oral cancer has a 90% cure rate if it is detected early.


Get checked before it's too late!

Call **1.877.7CHECKED**
(1.877.724.3253)

Detroit Oral Cancer Prevention Project
www.DetroitOralCancer.org

Sponsored by
WOMEN'S CANCER RESEARCH CENTER
University of Michigan School of Dentistry
University of Detroit Mercy School of Dentistry

ORAL CANCER? GET CHECKED!



1.877.7CHECKED

An ORAL CANCER check-up can save your life!

Think about how many times a day you use your mouth. Now imagine life without your tongue, your teeth, sense of taste, or full use of your jaw! You would never be able to enjoy some of the best things in life like eating, drinking, talking, or kissing. That's what could happen if you get oral cancer.

What is oral cancer? Oral cancer is a result of abnormal cell changes in your mouth.

Who can get oral cancer? Oral cancer is most common in men, African Americans, Native Americans, adults over age 40, smokers, and heavy alcohol drinkers. However, one out of four cases occur in non-smokers and people under age 30. Other causes include viral infection, too much sun exposure to the lips, and poor diet.

What are the symptoms? One of the real dangers of oral cancer is that in its earliest stages you may not be able to see the cancer yourself. The good news is that your dentist can! Symptoms of oral cancer include:

- A sore which does not heal
- A lump in the mouth or neck
- Painful or difficulty swallowing or chewing
- Voice hoarseness which lasts for a long time
- Numbness in the mouth region
- White or red patches that appear on the gum, cheeks, or under the tongue

IMPORTANT: If you experience any of the above symptoms for longer than 10 days, it is vital that you get checked as soon as possible.

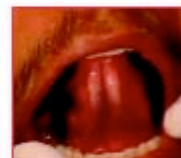
What can I expect during an oral cancer check-up? An oral cancer check-up is painless and only takes a few minutes. During an exam, a dentist will perform the following:



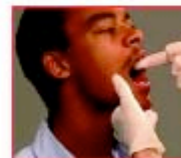
Check neck, face, and lips. The dentist will ask you many questions about your lifestyle and any symptoms you may have. Next, the dentist will look at and feel the outside of your neck, face, and lips.



Check cheeks, gums, and throat. Using a bright light and mirror, the dentist will look at and feel your gums, the inside of your cheeks, the roof of your mouth, your throat and your tonsils.



Check tongue and floor of mouth. The dentist will thoroughly examine all sides of your tongue and the floor of your mouth.



Further checking. If oral cancer is suspected, you will be referred to a specialty clinic for further tests. If oral cancer is found, the clinic will help coordinate treatment.

*The Detroit Oral Cancer Prevention Project does not cover the cost of care. Assistance may be available for those without insurance or income.

How can I reduce the risk of oral cancer?

To lower your chances of getting oral cancer it is important that you do the following:

- Stop smoking or chewing tobacco
- Stop or reduce alcohol consumption
- Eat more fruits and vegetables
- Ask your healthcare provider to check for oral cancer

What happens if I get oral cancer? When oral cancer is caught early, the chance of a complete cure is high. However, when it is detected in the later stages, oral cancer can be devastating. Treatments for later stages of oral cancer may include: chemotherapy, surgery and radiation.

Can I die from oral cancer? Yes. If not caught early, oral cancer has a very high death rate.

Where can I get an oral cancer check-up? The Detroit Oral Cancer Prevention Project is giving free & painless check-ups to all Detroiters. To schedule an appointment:

Call **1.877.7 CHECKED**
(1.877.724.3253)

Get checked before
It's too late!

www.DetroitOralCancer.org

Radio Messages



IMAGINE 1



IMAGINE 2

Newspaper Advertisements



ORAL CANCER?

**GET CHECKED BEFORE
IT'S TOO LATE.**

Call
1.877.7 CHECKED
(1.877.724.3253)
IT'S PAINLESS AND FREE.

Did you know?

- African-American men in Detroit have one of the highest rates of oral cancer in the U.S.
- African-American men over age 40 have the greatest risk.
- Each year, 20,000 Americans are diagnosed with oral cancer and nearly 8,000 die from it.
- Smoking and heavy drinking increase your chances of getting oral cancer.
- Oral cancer is the sixth most common cancer.
- Oral cancer has a 90% cure rate if it is detected early.

Sponsored by: MDCR/MH Grant No. R19 DE016786-01, University of Michigan School of Dentistry, University of Detroit Mercy School of Dentistry, Delta Dental Fund

Let's Talk About Oral Cancer

Let's Talk About Oral Cancer

The Detroit Oral Cancer Prevention Project is offering FREE educational sessions on oral cancer to community and faith-based organizations.

(313) 875-4329

or

(313) 875-4352

Oral Cancer is the 4th most common cancer among African American men.

LET'S TALK!

Community-based Health Education

- 3 health educators
- 20-minute presentation using flip charts
- Pre- and post questionnaires
- 142 sessions completed since April 05
 - Churches
 - Community Groups

Screening Clinic

- Tuesday, full day
- Dental Assessment Center
- 552 screenings since April 2005
- 54 referrals
- 4 oral cancer cases detected
 - 3 early stage
 - 1 Stage 4

Biopsy and Surgery Clinic

- University of Detroit-Mercy School of Dentistry
- Oral surgery: private practice
- 54 referrals
- Funding from Delta Dental Foundation of Michigan

Continuing Online Education

- November 2006
- Live sessions
- Free (minimal fee) online CE
- Health professionals
- Oral mucosal lesions
 - Normal and pathologies
- Story of a patient
- Detection steps
- Prevention
 - Trans-theoretical model (TTM) and Motivational Interviewing (MI)
 - Tobacco use
 - Alcohol



Detroit Oral Cancer Prevention Project **CONTINUING EDUCATION PROGRAM**

Oral Cancer is a Killer in Michigan. You can Make a Difference!

Each year there are over 1,000 new cases of oral cancer and about 250 deaths in our state.

The Detroit Oral Cancer Prevention Project is offering an
ONLINE continuing education program on oral cancer.

Earn CME or CDE credit hours by accessing:
www.detroitoralcancer.org

Listen to the story of a survivor of oral cancer; watch videos and a slide presentation
on the diagnosis and prevention of oral cancer.

Study # H04-00005506-R1

Oral Cancer is a Killer in Michigan. You Can Make a Difference!

There is a nominal charge of \$15 to issue a CME or CDE certificate

Access the CE program via:
www.detroitoralcancer.org

For questions: Call 734-615-7186
School of Dentistry, University of Michigan

This program is funded by the National Institutes of Health/National Institute of Dental and
Craniofacial Research and the Delta Dental Fund of Michigan.

Study # H04-00005506-R1



Symptoms* Experienced by Callers

consent n = 1118; total call-ins = 1215

Symptom	Percent
Use/Have Ever Used Tobacco/Alcohol	83.5%
41 Years or Older	64.9%
Sore Throat/Something Caught	28.7%
Hoarseness/Voice Change	26.8%
Persistent Ear Pain	13.2%
Numb Area of Mouth	12.0%
Lump on One Side	13.8%
Lump in Neck/Behind Ear/Under Jaw	12.2%
Sore in the Mouth for More than 2 Weeks	9.4%
Swollen Jaw	7.4%

* Percents potentially add to over 100% as the question allowed patient to mark all that apply.

Symptoms* Experienced by Screened Adults

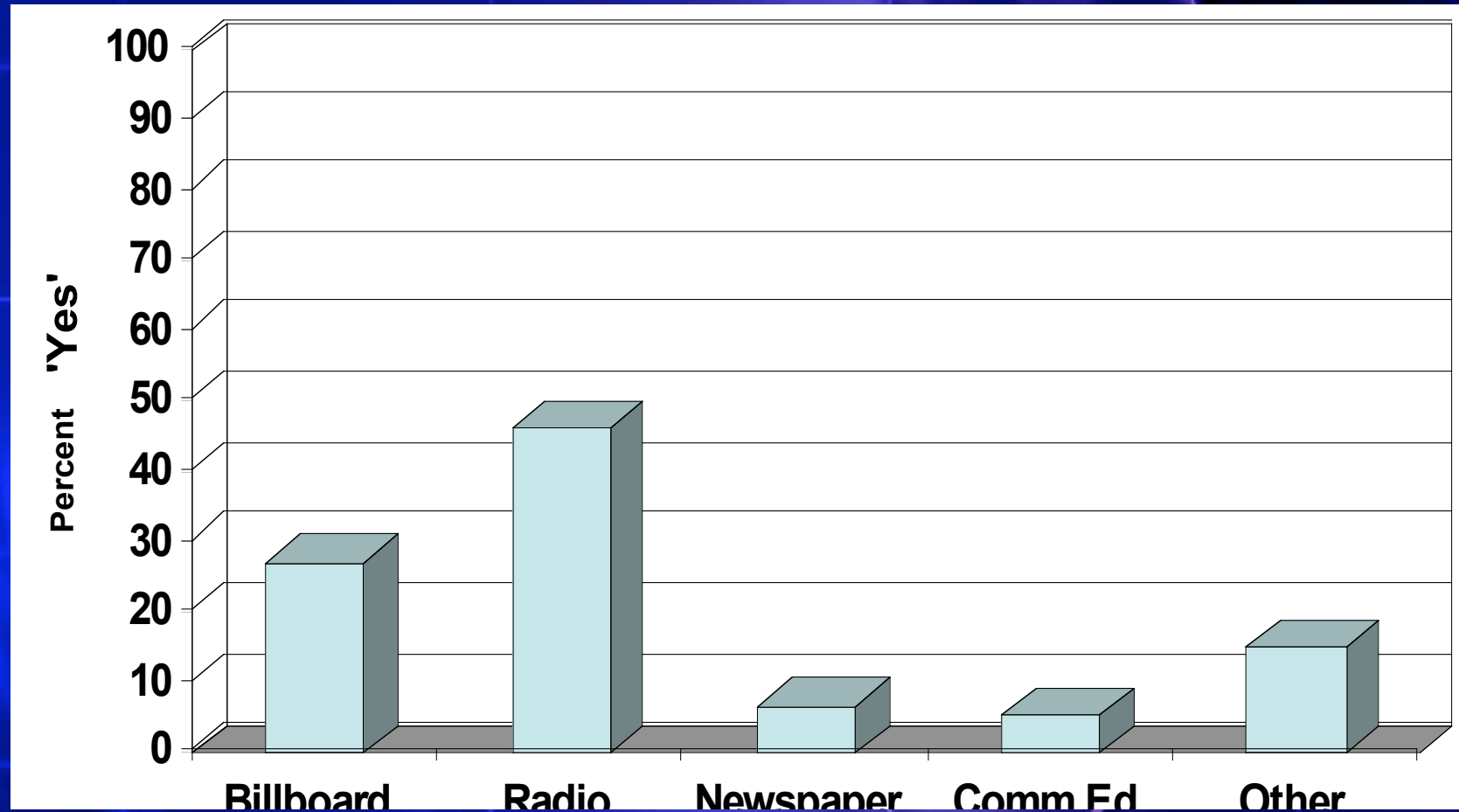
N=552

Symptom	Percent
Hoarseness/Voice Change	31.9%
Sore Throat/Something Caught	27.6%
Numb Area of Mouth	15.9%
Lump in Neck/Behind Ear/Under Jaw	13.6%
Persistent Ear Pain	10.9%
Jaw Swelling from Dentures	8.2%

* Percents potentially add to over 100% as the question allowed patient to mark all that apply.

Media Source: Toll-free Line

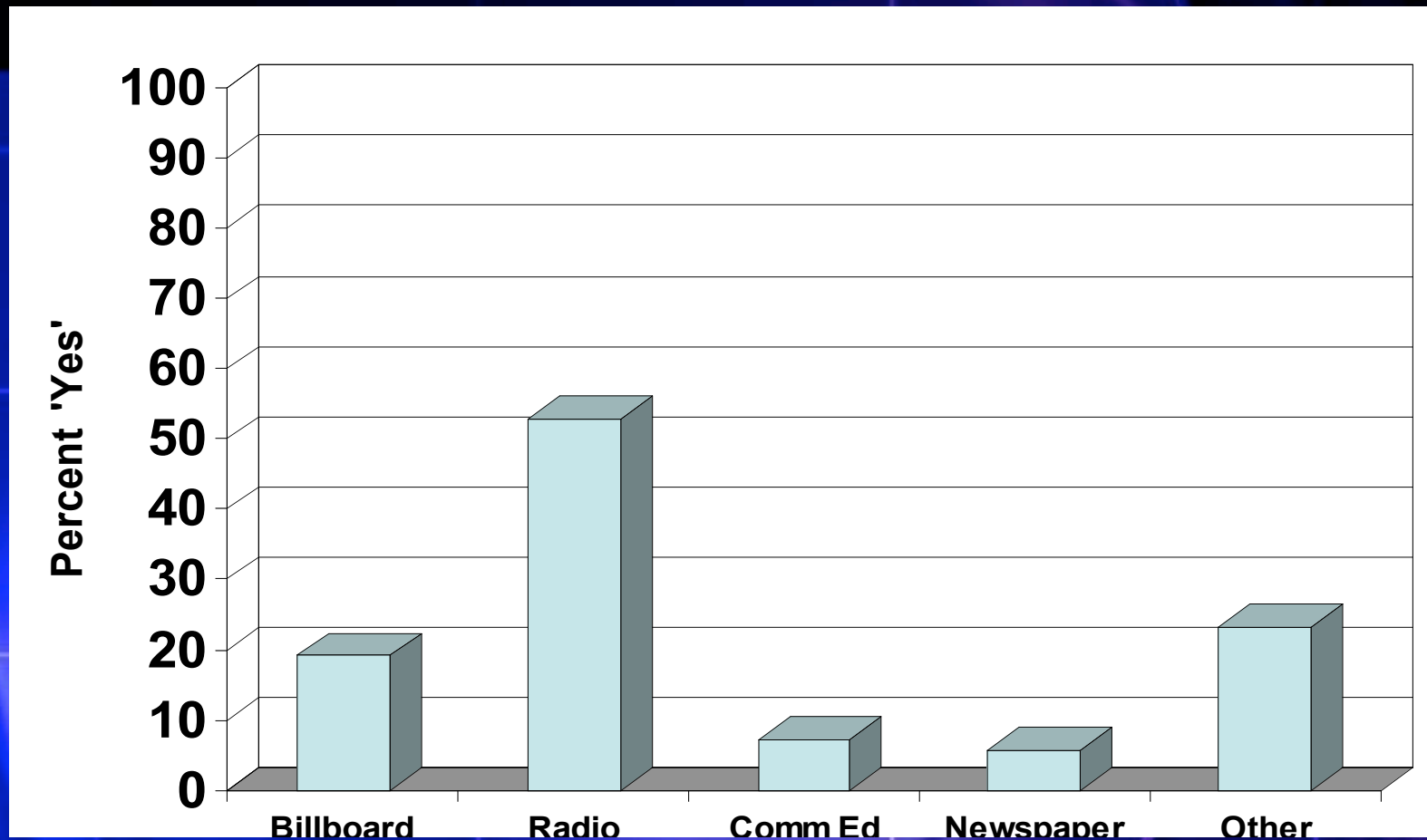
consent n = 1118; total call-ins = 1215



* Percents potentially add to over 100% as the question allowed patient to mark all that apply.

Media Source* of Screened Adults

N=552



* Percents potentially add to over 100% as the question allowed patient to mark all that apply.

Alcohol & Tobacco Use of Screened Adults

N=552

	Percent
Cigarette/Cigar Smoking History	
Smoke Now	39.6%
Smoked Previously	26.6%
Never Smoked	33.9%
Alcohol History	
Never Consumed Alcohol	14.7%
No Longer Consumes Alcohol	20.2%
Monthly or Less	32.7%
2-4 Times a Month	18.0%
2-3 Times a Week	17.7%
4 or More Times per Week	11.4%

Screening Practices of Physicians & Doctors

	Survey 2005		Survey 2006 (prelim results)	
	Dentists n=516	MD n=290	Dentists n=283	MD n=83
Typical Screening Practice				
Screen Patients 18-39 years***				
Routinely	90.3%	27.5%	88.0%	29.9%
Only if risk	8.3%	41.0%	9.5%	40.2%
Do not screen	1.4%	31.5%	2.6%	29.9%
Screen Patients 40+ years***				
Routinely	94.8%	47.2%	91.7%	47.6%
Only if risk	4.6%	36.9%	5.4%	39.0%
Do not screen	0.6%	16.0%	2.9%	13.4%
Factors Determining Screening				
Heavy Alcohol Use*				
Yes	94.1%	89.6%	94.3%	80.3%
No	5.9%	10.4%	5.7%	19.8%
Sun Exposure***				
Yes	84.7%	32.9%	87.0%	31.2%
No	15.3%	67.2%	13.0%	68.8%

*** p<0.001; ** p<0.01; * p<0.05

Oral Cancer Knowledge of Dentists & Physicians

	Survey 2005		Survey 2006 (prelim results)	
	Dentists n=516	MD n=290	Dentists n=283	MD n=83
Area Most Likely to Develop Oral Cancer.***				
All areas	7.8%	12.9%	8.7%	13.6%
Dorsal surface	2.4%	2.1%	2.9%	3.7%
Ventral-lateral border	73.5%	24.5%	70.9%	19.8%
Anterior-lateral border	2.9%	8.0%	2.9%	7.4%
Base of tongue	8.2%	14.3%	9.8%	13.6%
Unsure	5.1%	38.1%	4.7%	42.0%

*** p<0.001; ** p<0.01; * p<0.05

Effects of Education Sessions on Oral Cancer Knowledge

	n	Pre-Session % Agreement	Post-Session % Agreement
Risk Factors of Oral Cancer			
Family history of cancer	939	58.2	53.6
Low consumption of fruits/veggies***	925	38.7	79.0
Use of cigarettes***	969	87.8	94.9
Use of cigars/pipes***	965	79.2	89.7
Use of snuff/chewing/spit tobacco***	967	75.0	87.8
Use of alcohol***	963	50.1	88.7
Older age***	935	32.4	67.5
Use of spicy foods***	928	23.4	36.4
Certain types of viruses***	960	46.2	70.5

*** p<0.001; ** p<0.01; * p<0.05

Conclusions

- We have saved the lives of 4 people with early oral cancer lesions (T0/T1) and this is the ultimate success.
- Media campaign has generated interest from the public.
- Short health education sessions have increased knowledge level on oral cancer.
- There are differences in knowledge and practice between physicians and dentists.