New York State Oral Cancer Partnership

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Objectives

- Develop an organizational infrastructure
- Conduct needs assessment
- Develop interventions for testing in Phase II

Charge

- **Guide the development of a statewide partnership**
- **Develop the mechanisms for providing assistance in public relation messages and skills building sessions on strengthening partnership and coalitions**
- **Address the strategies for action recommended in the proceedings of the National Strategic Planning Conference for the Prevention and Control of Oral and Pharyngeal Cancer.**
- **Specifically, the steering committee will examine the relevance, opportunities and barriers for implementation**
- **Examine the potential for implementing various interventions and the likely support for these interventions and their success.**

Planning Model

PRECEDE (predisposing, reinforcing and enabling constructs in educational/ecological diagnosis and evaluation)

PROCEED (policy, regulatory, and organizational constructs in educational and environmental development)

Social assessment

Obtain evidence to support the following social concerns about oral cancer:

- Oral cancer morbidity
- Delay in diagnosis
- Poor survival
- Facial disfigurement
- Cost to the society
- Slow and painful death

Social assessment	Epidemiological assessment
Obtain evidence to support the following social concerns about oral cancer:	***Assess the following contributing causes of the social concerns:***
• Delay in diagnosis	• Access to care • Utilization of dental services • Affecting sites in the mouth that are not visible • Lack of early detection techniques in dental and medical offices • Lower socioeconomic level • Lower literacy level • Race/Ethnicity

Behavioral assessment	Educational assessment
Explore the reasons for the behavior	***The role of following suspected causes of behavior will be studied:***
■ **Knowledge of risk factors** ■ **Knowledge of oral cancer** ■ **Awareness among health care professionals regarding the magnitude of the problem** ■ **Failure to conduct screenings for oral cancer** ■ **Failure to conduct screenings for oral cancer** ■ **Oral health is not an integral part of overall health** ■ **Rates of screening for oral cancer** ■ **Utilization of dental services**	***Predisposing factors:*** ■ **Lack of knowledge that tobacco and alcohol cause oral cancer** ■ **Lack of awareness of signs and symptoms of oral cancer** ■ **Lack of knowledge that oral cancer examinations are easy and needed** ***Enabling factors*** ■ **Inability to pay for dental visits** ■ **Lack of knowledge among health care providers regarding oral cancer examinations** ■ **Inability to bill for services** ■ **Laws, practice acts, and policies** ***Reinforcing factors:*** ■ **Health providers** ■ **Training programs**

Ecological analysis

Analysis to be undertaken to plan interventions at the following levels:

Intrapersonal

- perception about susceptibility
- perceived benefits and barriers

Interpersonal

- low level of dental care utilization
- low rates of compliance with guidelines for examinations

Organizational

- health insurance coverage
- support of top management

Community

- availability of resources
- accessibility of health services

Public Policy

- integrate oral health into overall health

Specific Aims

- Plan and develop a partnership
- Analyze epidemiological data on morbidity and mortality.
- Conduct an assessment of cancer diagnosis by various health care professionals and the stage in which oral cancers are diagnosed.

Specific Aims

- Assess the general public's knowledge, opinions, and practices about oral cancer prevention and early detection.
- Conduct a survey of New York State health care professionals to assess the knowledge, opinions, and practices about oral cancer.
- Evaluate the types of educational materials available to the public and health professionals

Specific Aims

- Conduct qualitative research using focus groups of dentists and cancer patients, physician interviews, and case studies to clarify the opinions, attitudes and practices about oral cancer.

Figure 1. Trends in incidence of cancers of oral cavity and pharynx. New York State Cancer Registry, 1983-1997.

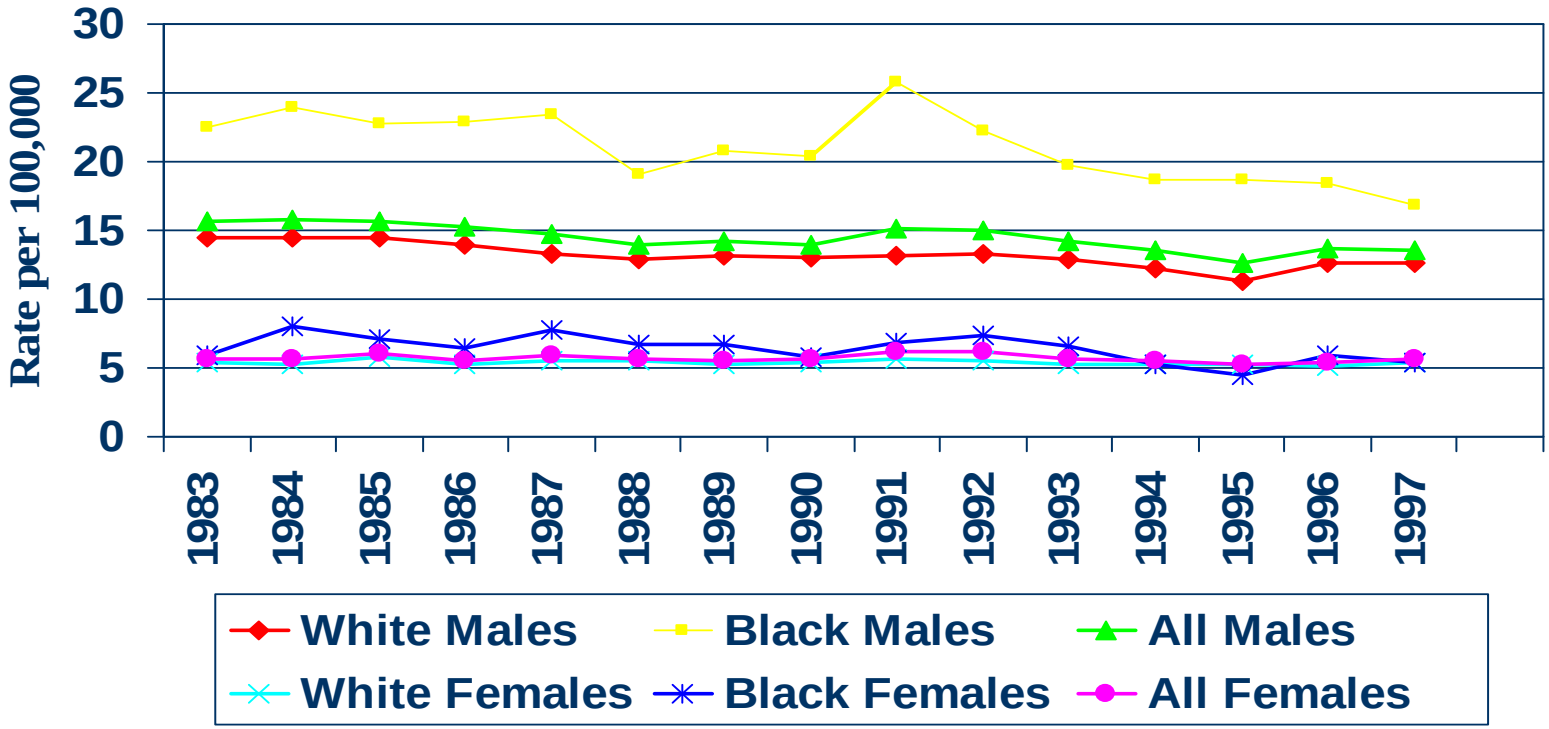


Figure 2. Trends in mortality of cancers of oral cavity and pharynx. New York State Cancer Registry, 1983-1997

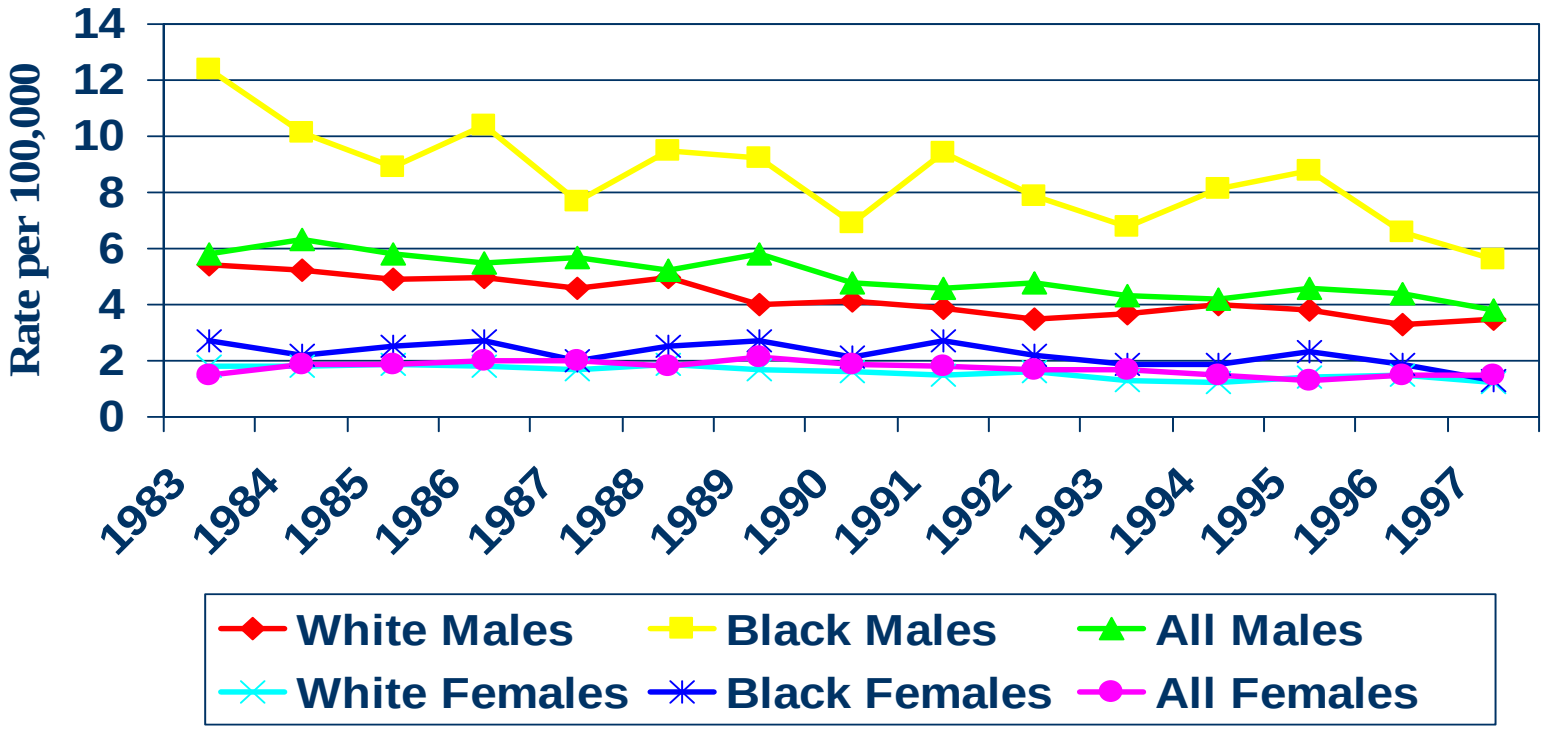


Figure 3. Average annual number of cases of cancers of oral cavity and pharynx by site. New York State Cancer Registry, 1993-1997.

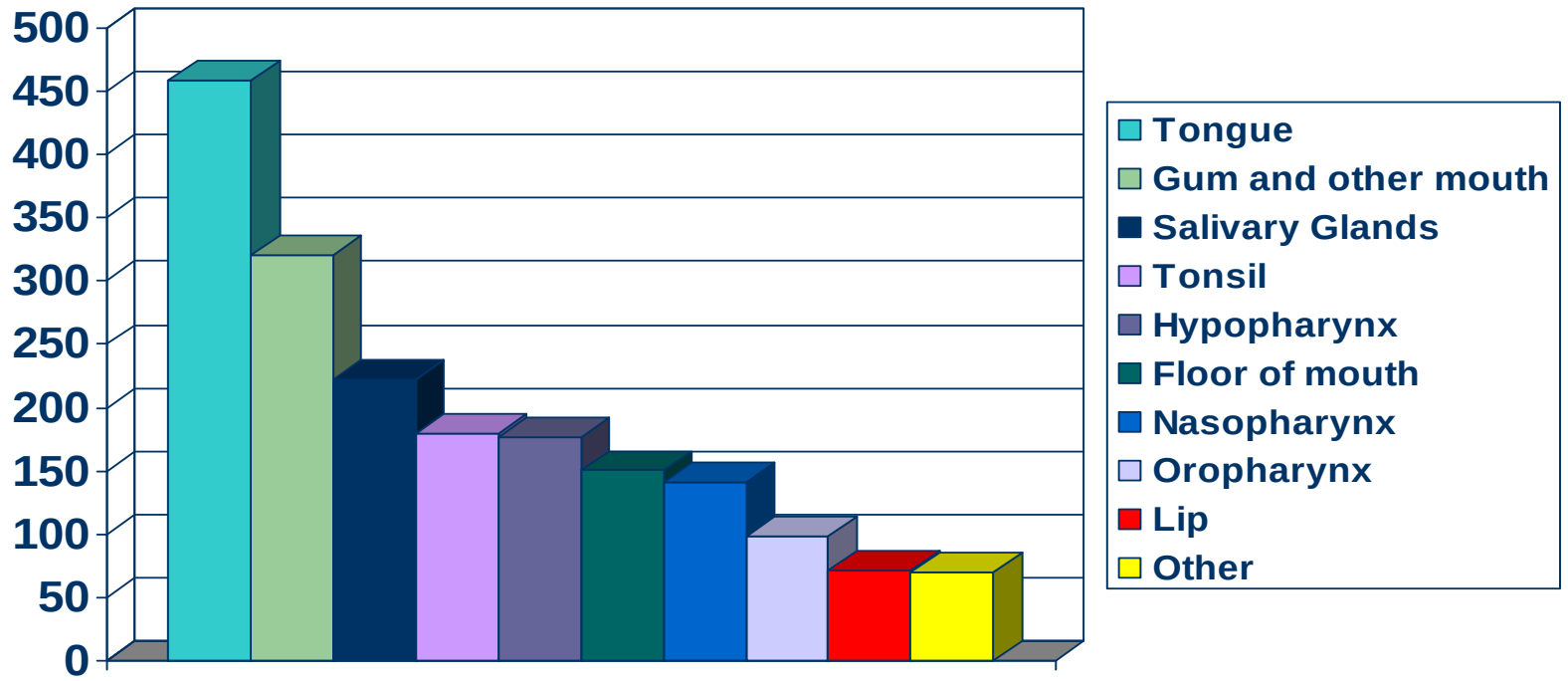
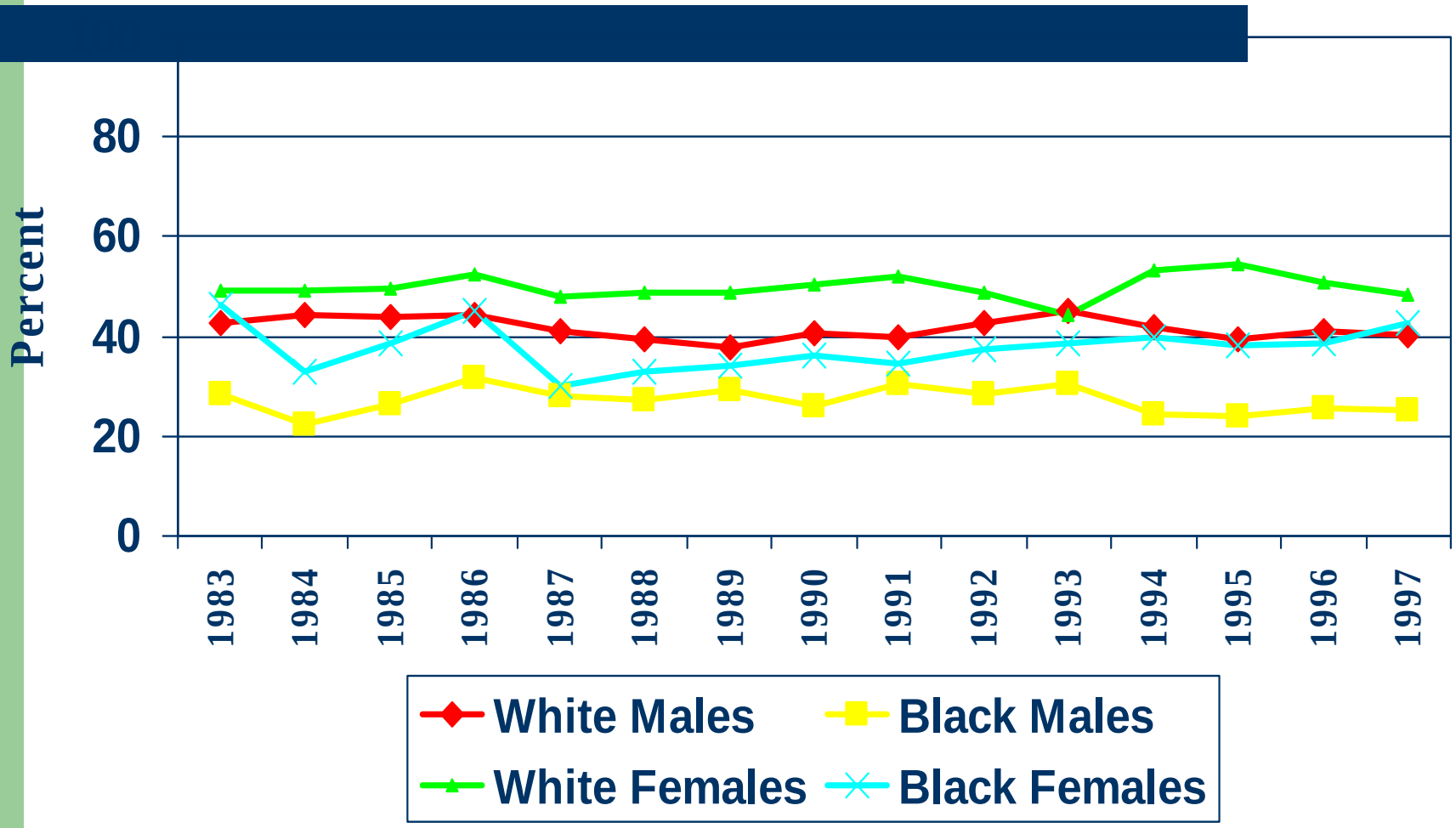


Figure 4. Oral cancer cases diagnosed at early stage by year according to race and gender. New York State Cancer Registry, 1983-1997



Oral Cancer Risk Factors

- 2.95 million adults are cigarette smokers
- 611,600 adults smoke cigarette and use alcohol in combination
- 71,600 adults at high risk because of cigarette and alcohol use in combination had no dental or medical visit in the past year

Hospitalization: SPARCS

- There were 2798 discharges where oral cancer was indicated as a diagnosis (ICD codes 140-146, 149)
- There were 1461 discharges with oral or pharyngeal cancer as a principal diagnosis
- The average length of stay was 10 days
- The average hospital charge was $26,202

Hospital Discharges by Selected Characteristics

	Characteristics	All Diagnoses (%) N= 2798	Principal Diagnosis (%) N= 1461
Gender	**Male**	**66.5**	**64.8**
	Female	**33.5**	**35.2**
Age			
	< 45	**11.5**	**11.8**
	46-64	**43.0**	**43.7**
	65 Plus	**45.5**	**44.5**
Race			
	Whites	**60.2**	**61.3**
	Others	**39.8**	**38.7**
Ethnicity			
	Hispanic	**6.9**	**5.9**
	Others	**93.1**	**94.1**

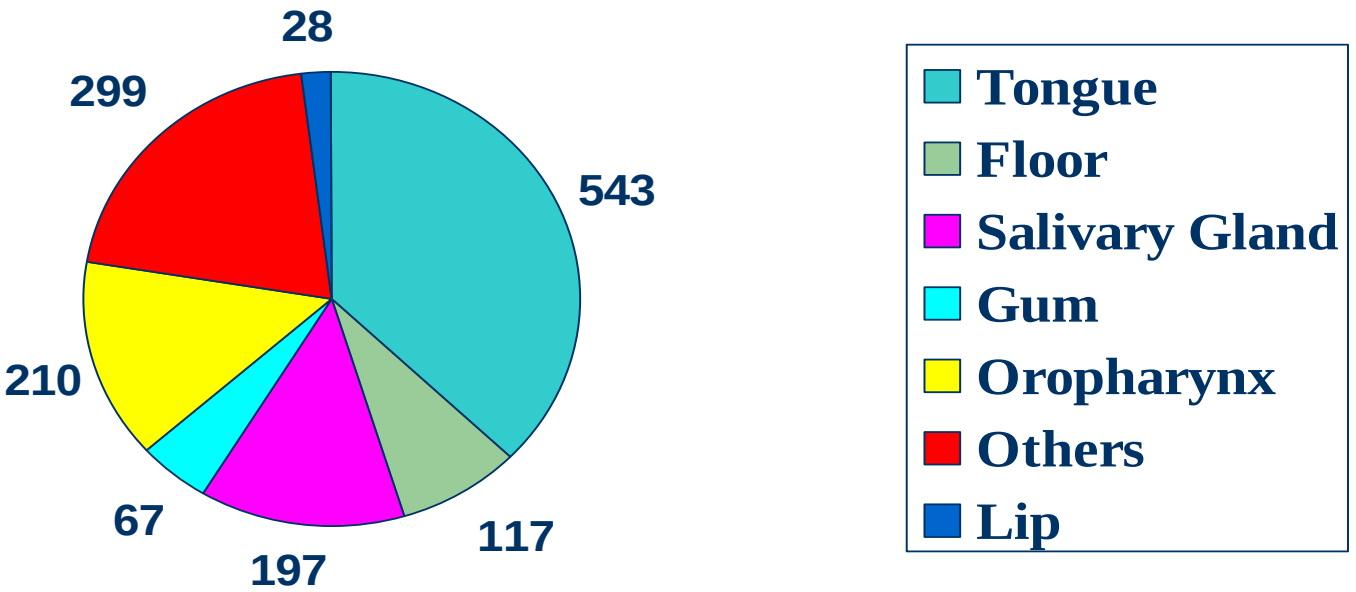
SOURCE OF PAYMENT

Source	All Diagnoses(%)	Principal Diagnoses(%)
Self-pay	2.9	3.4
Medicare	38.1	37.7
Medicaid	17.5	14.8
Blue Cross	12.4	12.9
Commercial	24.3	26.6
Other	4.7	4.7

Length of Stay and Total Charges

	All Diagnoses	Principal Diagnosis
Length of Stay (DAYS)		
Mean	**9.5 (11.8)**	**10.4 (13.4)**
Median	**6**	**7**
Charges		
Mean	**$22,394**	**$26,202**
Median	**$13,197**	**$16,060**
Mode	**$11,900**	**$5180**
Range	**$15 - $404,600**	**$15 - $404,600**

Site of the cancer in hospitalized patients



Ten Most Commonly Performed Procedures

ALL PROCEDURES

- Radical neck dissection
- Tracheostomy
- Enteral nutrition
- Partial glossectomy
- Excision
- Gastrostomy
- Laryngoscopy
- Partial mandibulectomy
- Free skin graft
- Injection of antibiotic

PRINCIPAL PROCEDURES

- Tracheostomy
- Partial glossectomy
- Radical neck dissection
- Excision
- Complete sialoadenectomy
- Partial sialoadenectomy
- Gastrostomy
- Partial mandibulectomy
- Partial ostectomy of facial bone

The LOGISTIC Procedure: Odds Ratios and 95% Confidence Intervals for Length of Stay Greater than 6 days

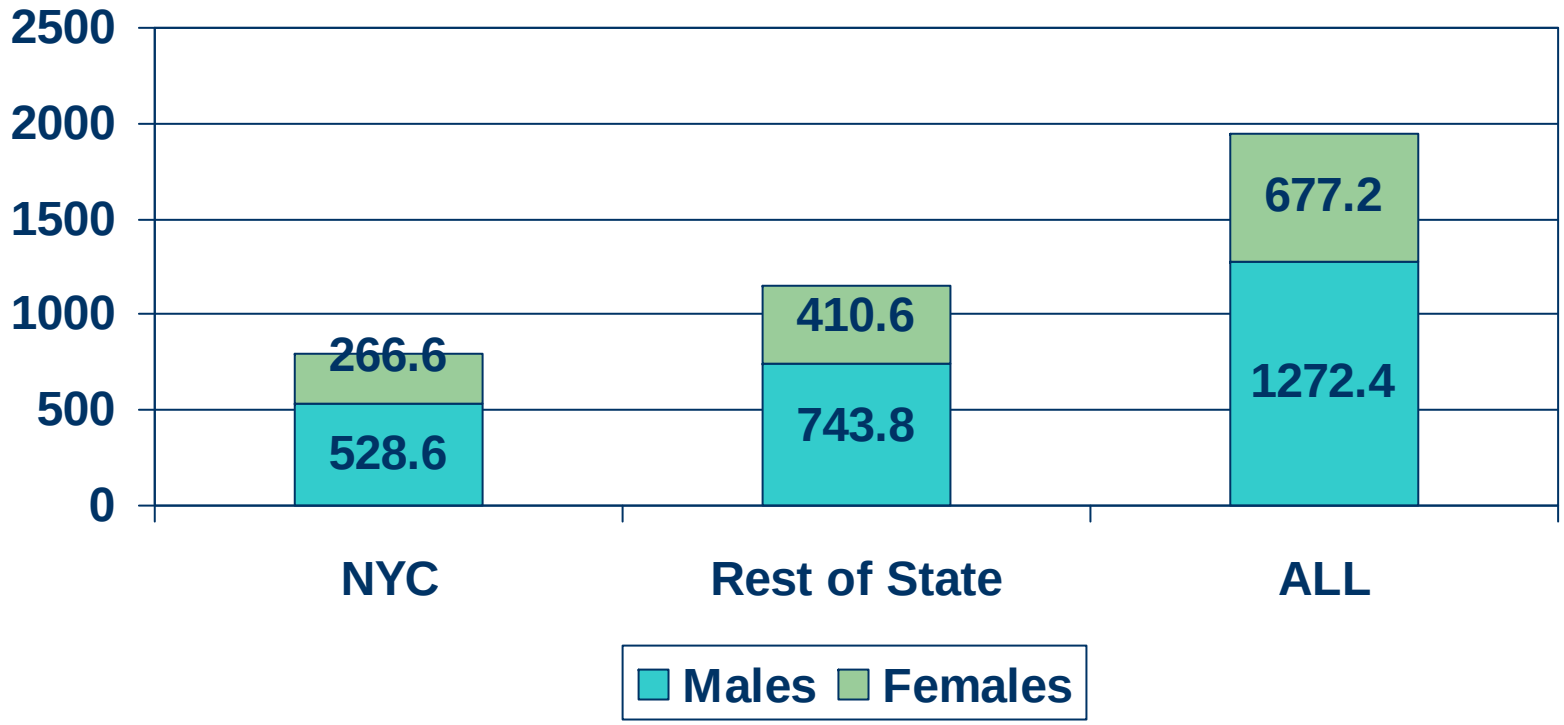
Variable	Odds Ratio	Confidence Limits Lower	Upper
GENDER (Male)	1.4	1.1	1.8
PAYMENT SOURCE	1.2	1.0	1.5
TYPE OF CANCER	5.1	3.6	7.3
RACE (Non White)	1.4	1.1	2.0
AGE (45+)	2.1	1.4	3.2
CO-MORBIDITY	3.1	2.1	4.5

NOTE:
Payment source = Medicaid & Medicare vs. all others;
Type of Cancers = All other cancers vs. lip & salivary gland
Co-morbidity = Having another diagnosis

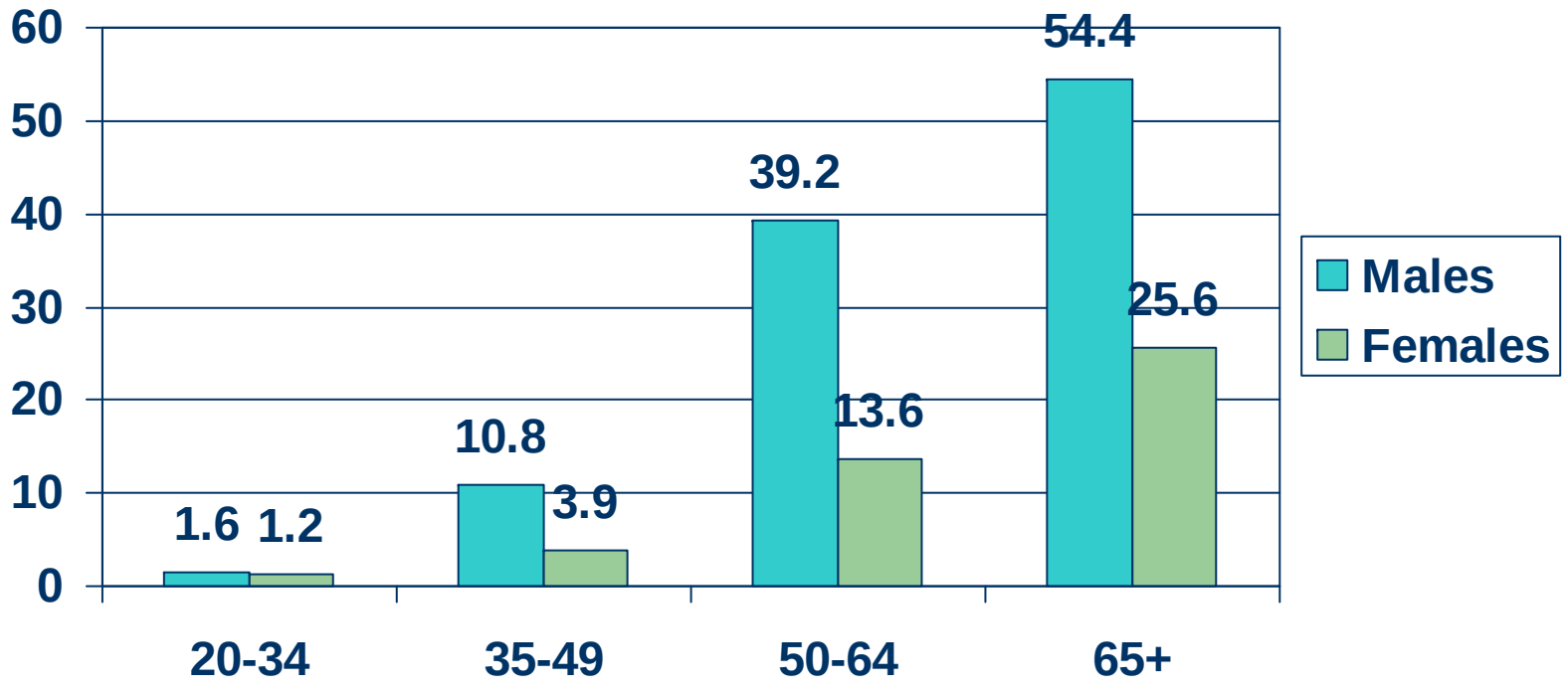
Discussion

- **Based on the analysis of existing data, should the partnership represent high-risk areas (groups) or all residents of New York?**
- **Should the partnership focus intervention on high-risk areas (groups) or all residents of New York?**

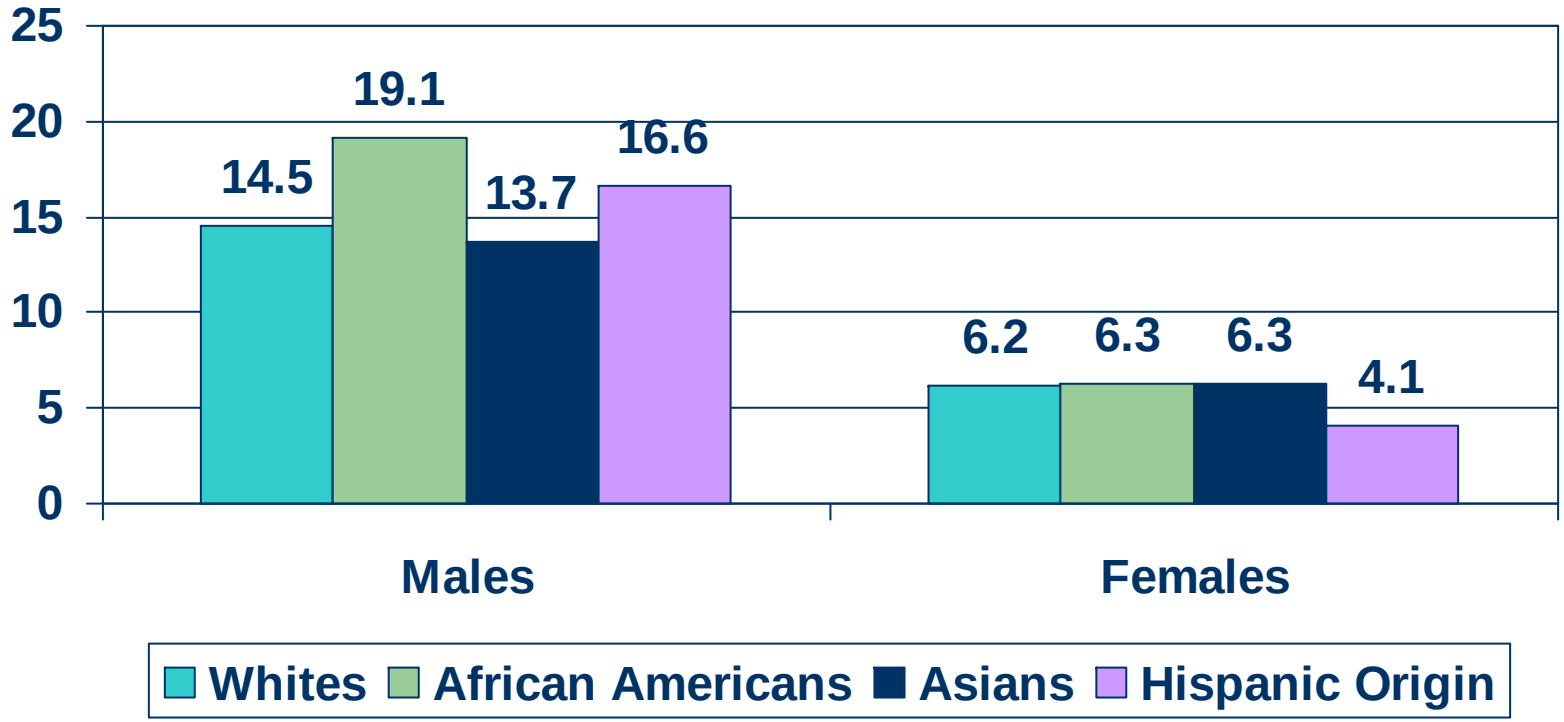
Cancer Incidence by Region, 1999



Cancer Incidence per 100,000 by Age Groups, 1995-1999

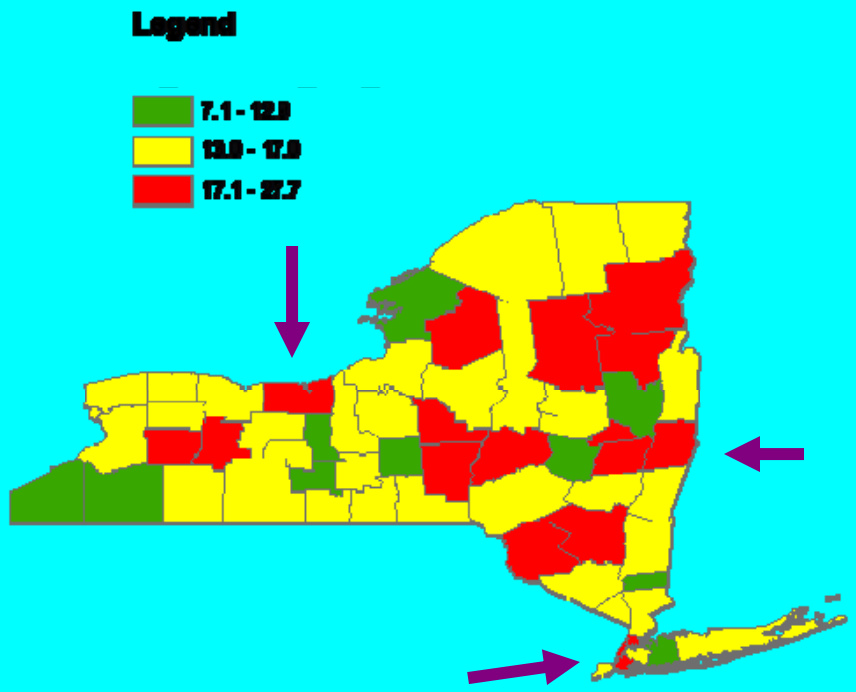


Cancer Incidence per 100,000 by Race and Hispanic Origin, 1995-1999

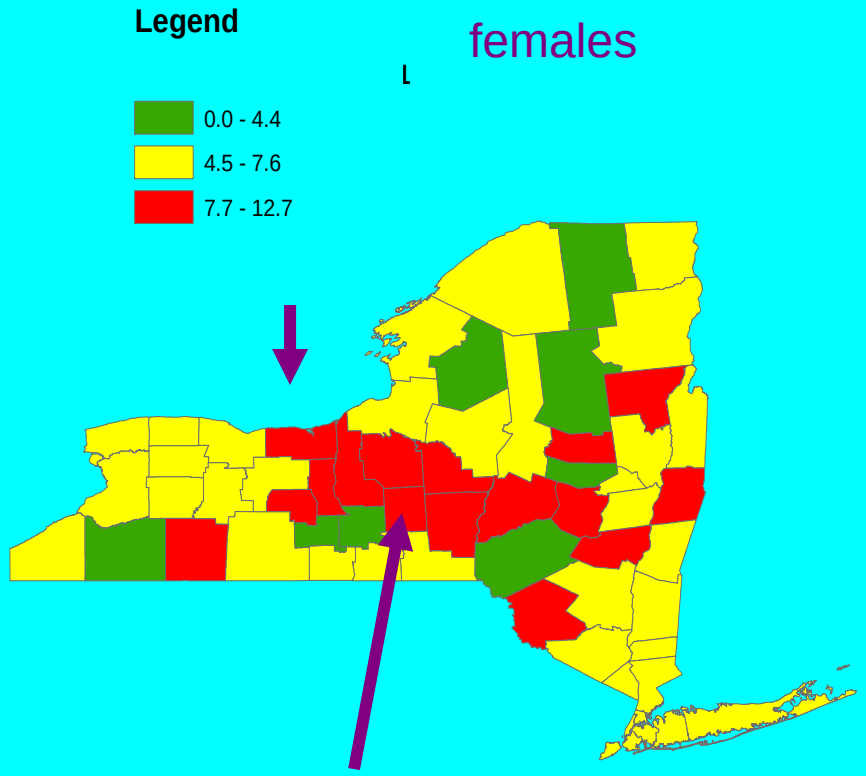


Age-adjusted cancer rates

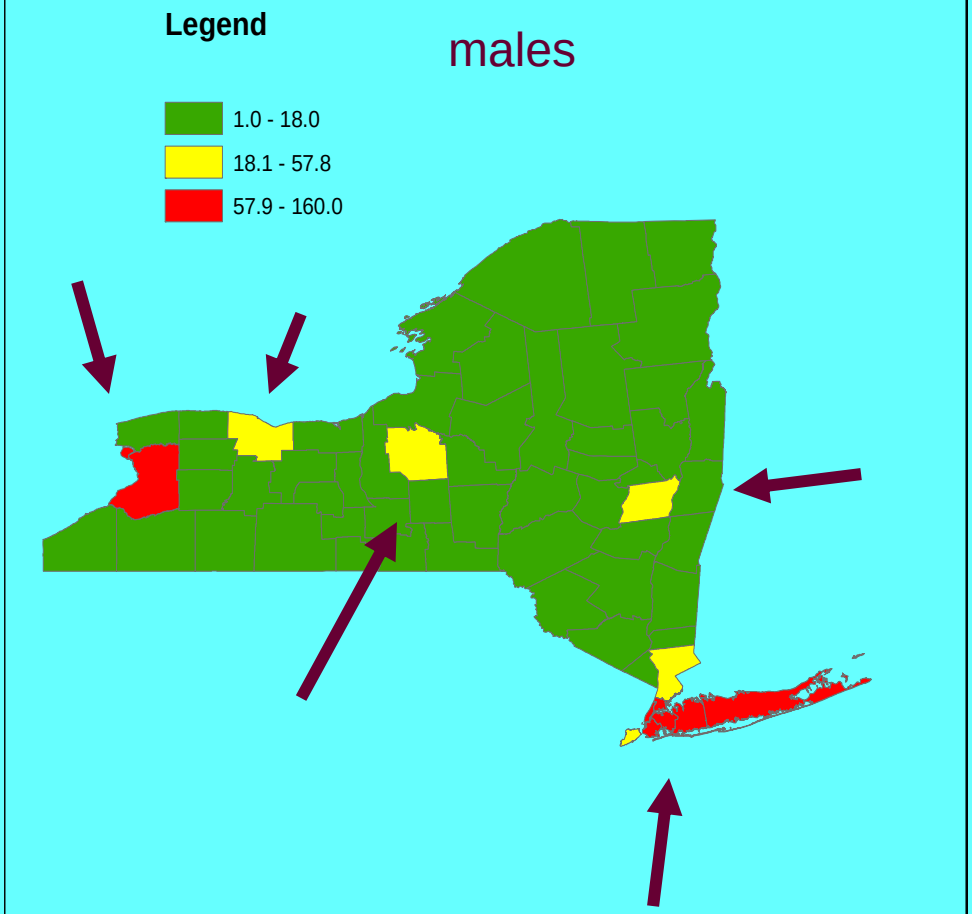
males

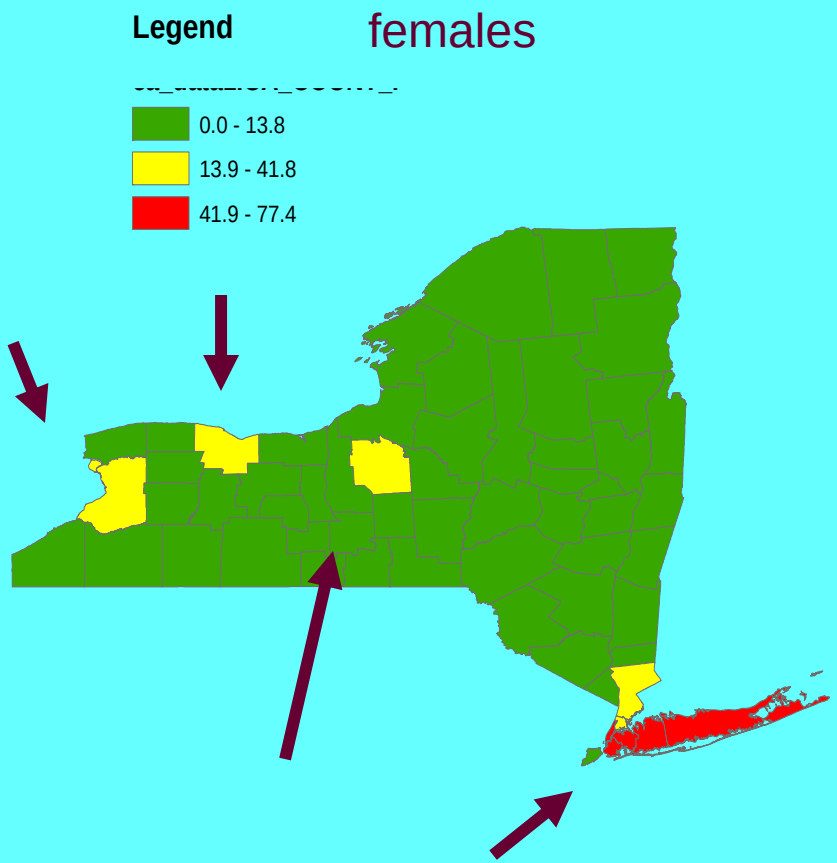


females



Cancer cases 5-yr average



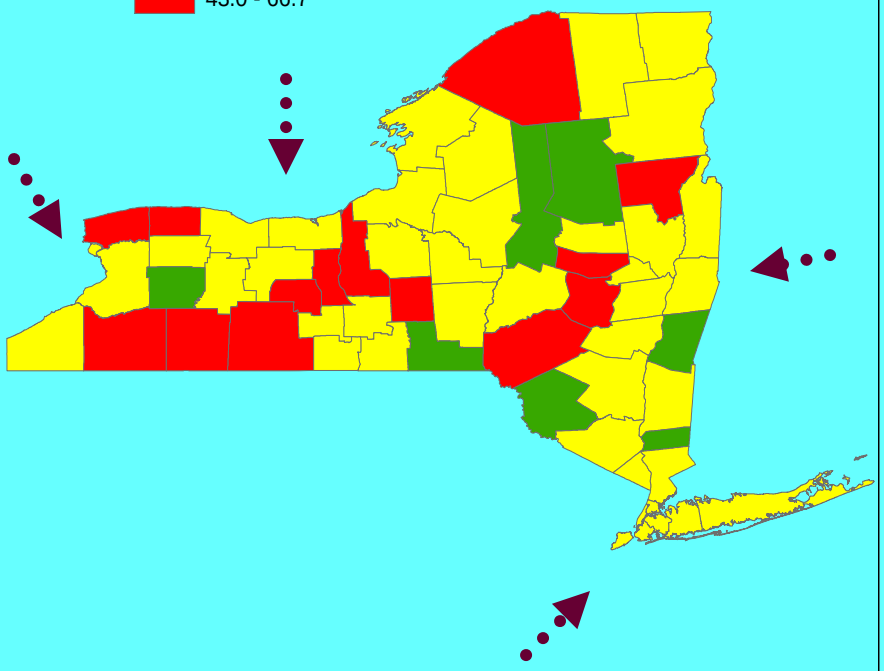


Early Diagnosis

Legend

males

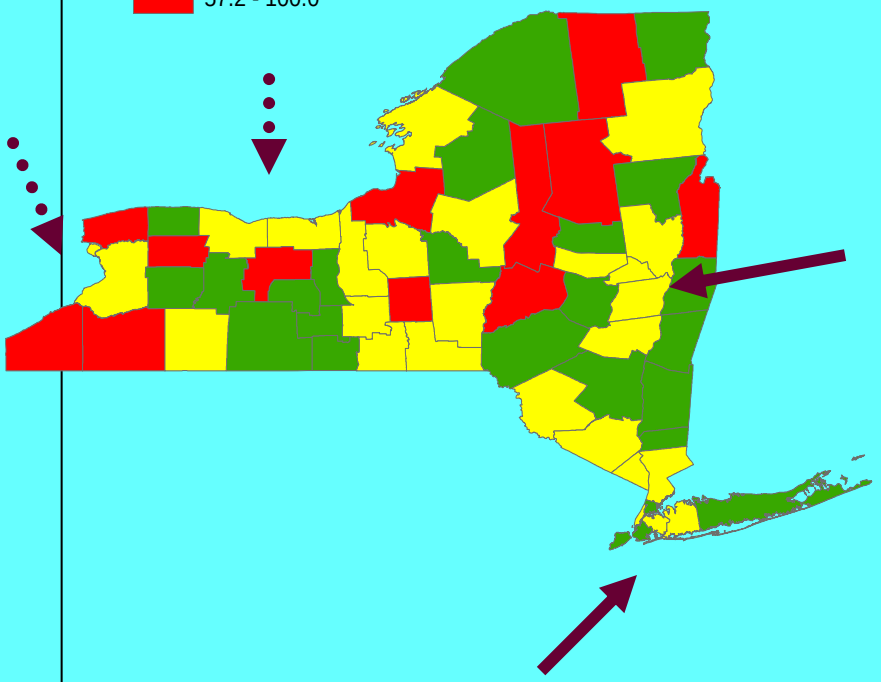
0.0 - 26.9
27.0 - 42.9
43.0 - 66.7



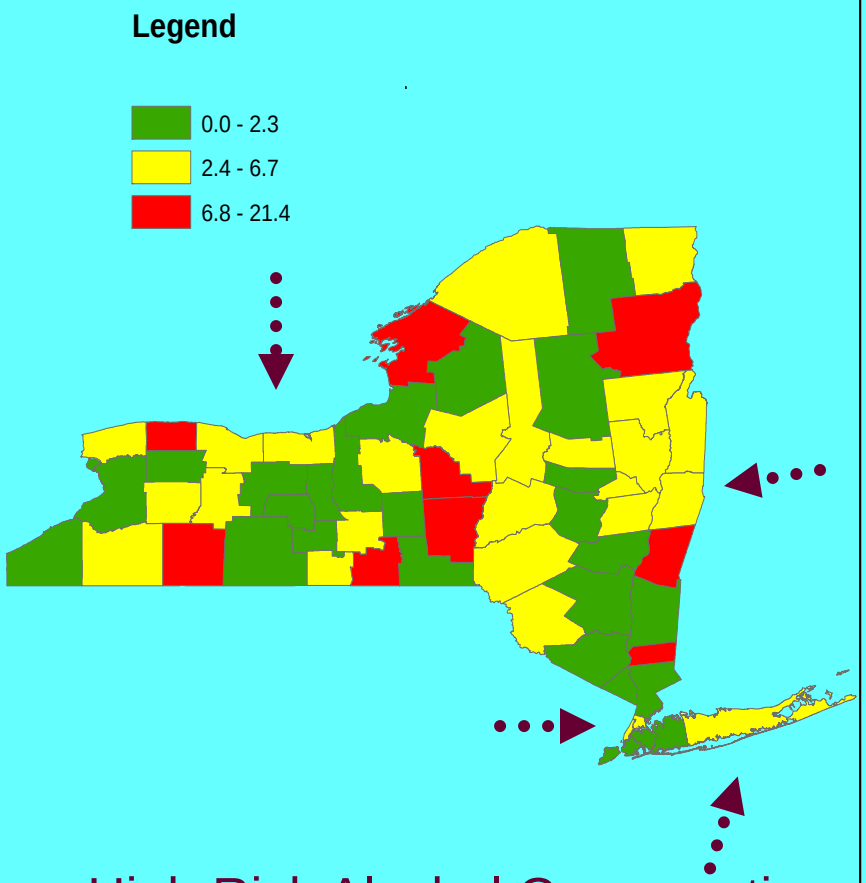
Legend

females

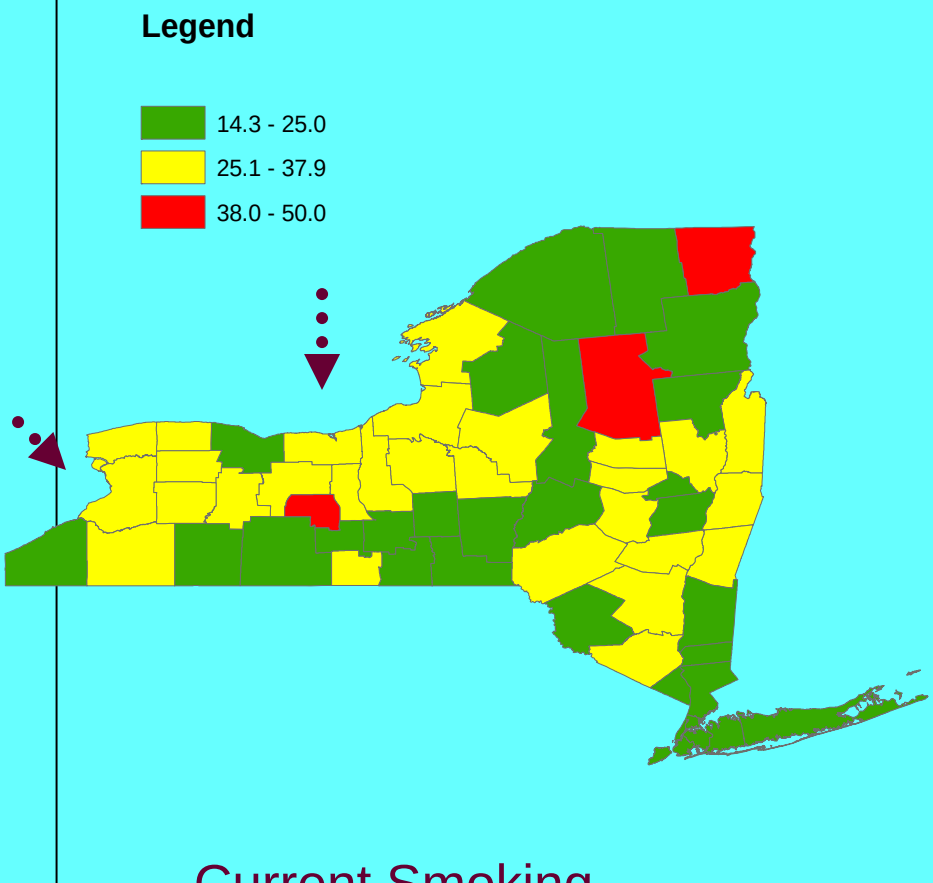
0.0 - 38.1
38.2 - 57.1
57.2 - 100.0



Drinking & Smoking



High Risk Alcohol Consumption



Current Smoking

This map shows the ranking of counties by a total of 6 indicators: male rates & late Dx, female rates & late Dx, Smoking & Drinking