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## APPENDIX 6

# TOBACCO USE & HEALTH IN GLACE BAY & KINGS COUNTY

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## **1. Tobacco Use & Health in Glace Bay and Kings County**

Prepared by Marcie D. Smith, Dr. Peter MacIntyre

### **Overview**

#### *About the project*

Genuine Progress Index (GPI) surveys were administered to random samples of residents of Glace Bay and Kings County, Nova Scotia to measure quality of life and well-being in many aspects of daily living.

Over 1700 surveys were returned from Glace Bay, and 1907 surveys were returned from Kings County. Overall, a response rate of over 80% was achieved even though the surveys were lengthy, taking over two hours to complete.

Examining the similarities and differences in Glace Bay and Kings County allows for valuable comparisons when looking at such matters as health. Glace Bay is a community of 19,000 people and is the fourth largest urban area and the largest town in Atlantic Canada. Traditionally Glace Bay was known for its mining and fishing, but now as these two areas are depleted there is very high unemployment in the area. Glace Bay finds that its youth tend to move off to large centers and that the town needs a facelift. Although these factors may be considered disadvantages, Glace Bay is a close-knit community with strong ties and friendly, helpful, concerned citizens. Kings County on the other hand, is about one hour away from Halifax, a major city with many resources. Kings County has approximately 50,000 people and has the richest agricultural land in Nova Scotia. Kings County has a low unemployment rate, and also has close communities and friendly citizens.

#### *The focus of this report*

This report focuses on the similarities and differences between Glace Bay and Kings County with regard to tobacco usage: rates of smoking split by overall health, age, education, and employment factors, and quit rates for persons with chronic diseases.

#### *Key results*

(as demonstrated in powerpoint presentation)

## DEMOGRAPHICS AND SMOKING

1. Glace Bay has a higher smoking rate than the Canadian, Nova Scotian, and Cape Breton average. Kings County, however, has a smoking rate that is below the Canadian average.
2. In both Glace Bay and Kings County, there are more male than female daily smokers.
3. University graduates have the lowest smoking rates in both regions. Those with a grade 9-12 education have the highest percentage of smokers, followed by community college graduates.
4. In both regions the unemployed have the highest smoking rates, and retirees have the lowest.
5. The age group with the largest percentage of daily smokers in both regions is the 35-44 year old age group. The senior age group (65+) has the least percentage of daily smokers.

## CONSUMPTION

1. In both Glace Bay and Kings County the largest percentage of residents smoke 20-25 cigarettes daily, which is equivalent to a regular size or king size pack of cigarettes.
2. Glace Bay residents show greater nicotine dependency since a larger percentage of residents smoke their first cigarette within the first five minutes of waking up.
3. In both regions, close to 80% of smokers began their habit before the age of 19.
4. Glace Bay had more respondents reporting that a member of their household smokes, and also had more respondents answer, “yes” that a member of their household smokes inside of the home.

## HEALTH ISSUES

1. Of those who smoke daily in Glace Bay and Kings County the majority self-report that their current health is very good to good. This self-report measure shows that smokers might not perceive that smoking is influencing their health status, which would be a barrier to quitting.
2. When examining the quit rates (the difference between the percent who smoke currently and those who used to smoke) for those diagnosed with chronic illness, Kings County Residents had higher rates of quitting smoking than Glace Bay residents in all illnesses examined.

- Interesting finding in relation to quit rates: Migraine sufferers in Glace Bay were least likely to quit out of all groups. They had a less than 0.2% quit rate. Stroke sufferers in Glace Bay also have very low quit rates (3.0% quit), which is surprising for such a serious vascular health issue. Further research is needed to examine why these groups are not quitting, and especially to investigate the link between migraines and the need to smoke or inability to quit.

### **How are these finding valuable and what other research can be done as a result?**

1. Further research is needed to investigate what it is about a Glace Bay citizen's lifestyle that makes them more likely to smoke than the average Canadian. Ways to break the link between high unemployment and smoking need to be found.
2. Why is it that more members of households in Glace Bay than Kings County are smoking inside of the home when other non-smokers live there?
3. This project replicates the findings of previous studies in that smokers tend to rate their health as good to very good. This may be a form of the "personal fable," whereby smokers deny that their health status is in danger.
4. Kings County tended to have much higher quit rates when diagnosed or living with a chronic disease than residents of Glace Bay. Kings County seems to be finding quitting easier than those in Glace Bay. Kings County is doing something right, but what is it that is aiding them in quitting? With further research Glace Bay could be able to use Kings County's success to aid in smoking cessation.



## 2. GPI Atlantic Tobacco Summary

### Some Key Findings:

- ❖ The rate of smoking is higher in Glace Bay (29.3%) than in Kings County (17.7%)
- ❖ In Glace Bay, there are an equal number of male and female smokers, but in Kings County, there are slightly more female smokers than male smokers.
- ❖ The majority of smokers are between the ages of 35 and 54. In Glace Bay, there are a higher number of smokers in the younger (15-34) and older (55+) age groups in comparison to Kings County, and less people in the middle age group (35-54).
- ❖ In both Glace Bay and Kings County, those with no more than a high school education show the highest rates of tobacco use. Among the lowest rates of smokers are those who are university educated.
- ❖ Despite using vitamins and herbal supplements less frequently, drinking more coffee, exercising less, and visiting their doctors more frequently than non-smokers, smokers rate their health as good to very good.
- ❖ 78.4% of daily smokers in Glace Bay and 76.1% of daily smokers in Kings County currently have children in the home. In homes where at least one person smokes inside of the house, parents' ratings of children's health were lower than those of their non-smoking counterparts.
- ❖ There are a high number of smokers smoking inside the house, in spite of the presence of children who are currently taking asthma medications (41.9% in Glace Bay and 30.6% in Kings County).
- ❖ In homes where there is smoking inside of the home, the use of Ritalin or other ADHD medications in children is much higher than those in non-smoking homes. In Glace Bay, 85.7% of children who are on Ritalin live in a smoking home. In Kings County, the number is not quite as high, with 66.7% of children on Ritalin living in a smoking home.
- ❖ Unemployment rates are slightly higher for smokers than for non-smokers.
- ❖ The highest percentage of smokers work in the sales and service industry.

*For more detailed information, and more findings like these, visit:*

[www.glacebaygpi.com](http://www.glacebaygpi.com)

### **3. GPI Atlantic Tobacco Summary: A Comparison of Glace Bay and Kings County**

Peter MacIntyre, Principal Researcher GPI



Prepared by Assistant Researchers Alissa Brennan and Marcie Smith

#### **About the Project**

Genuine Progress Index (GPI) surveys were randomly sampled, in 2001, to residents of Glace Bay and Kings County, Nova Scotia to measure quality of life and well-being in many aspects of daily living.

1700 surveys were returned from Glace Bay, and 1907 surveys were returned from Kings County. Overall, a response rate of over 80% was achieved even though the surveys were lengthy, taking over two hours to complete.

Examining the similarities and differences in Glace Bay and Kings County allows for valuable comparisons. Glace Bay is a community of 19,000 people and is the fourth largest urban area and the largest town in Atlantic Canada. Traditionally Glace Bay was known for its mining and fishing, but now as these two areas are depleted there is very high unemployment in the area. Glace Bay finds that their youth tend to move off to large centers and that their town needs many beautification projects. Although these factors are negative Glace Bay is a close-knit community with strong ties and friendly, helpful, concerned citizens. Kings County on the other hand, is about one hour away from Halifax, a major city with many resources. Kings County has approximately 50,000 people and has the richest agricultural land in Nova Scotia. Kings County has a low unemployment rate, and also has close communities and friendly citizens.

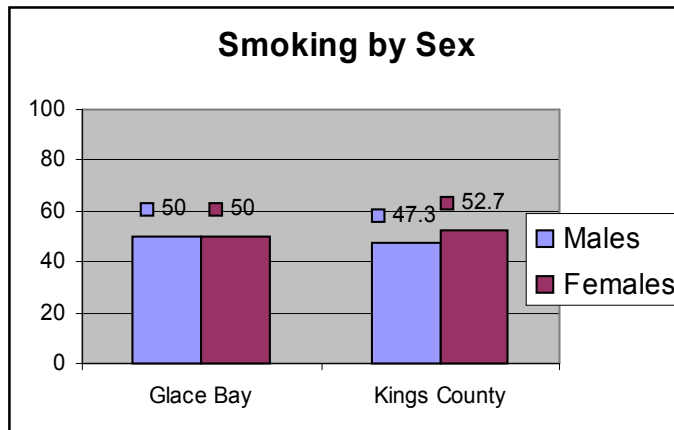
This report examines the similarities and differences between Glace Bay and Kings County with regard to tobacco use. Comparisons will be made in such areas as demographics, health, children of smokers, employment, and core values.

#### **Demographics of Tobacco Users**

Overall, the rate of smoking is higher in Glace Bay (29.3%) than in Kings County (17.7%). The rate of smoking in Glace Bay is higher than the national average.

## Sex

In Glace Bay, the proportion of smokers is equally distributed between Males (50%) and Females (50%). In Kings County, the trend is similar, although there are slightly more female smokers (52.7%) than male smokers (47.3%).



## Age

In Glace Bay, the majority of smokers are between the ages of 35 and 54 (51.6%). In Kings County, the trend is the same, with the majority of smokers being between the ages of 35 and 54 (63.2%). Interestingly, young people are smoking the least. In Glace Bay, 9% of smokers are between the ages of 15 and 24, and in Kings County, only 6.7% of smokers are between the ages of 15 and 24.

The age distribution of smokers differed between the two regions. Glace Bay has more younger (15-34) and older (55+) smokers than Kings County, and Kings County has more smokers in the middle age bracket 35-54). See the graph on the following page for illustration.

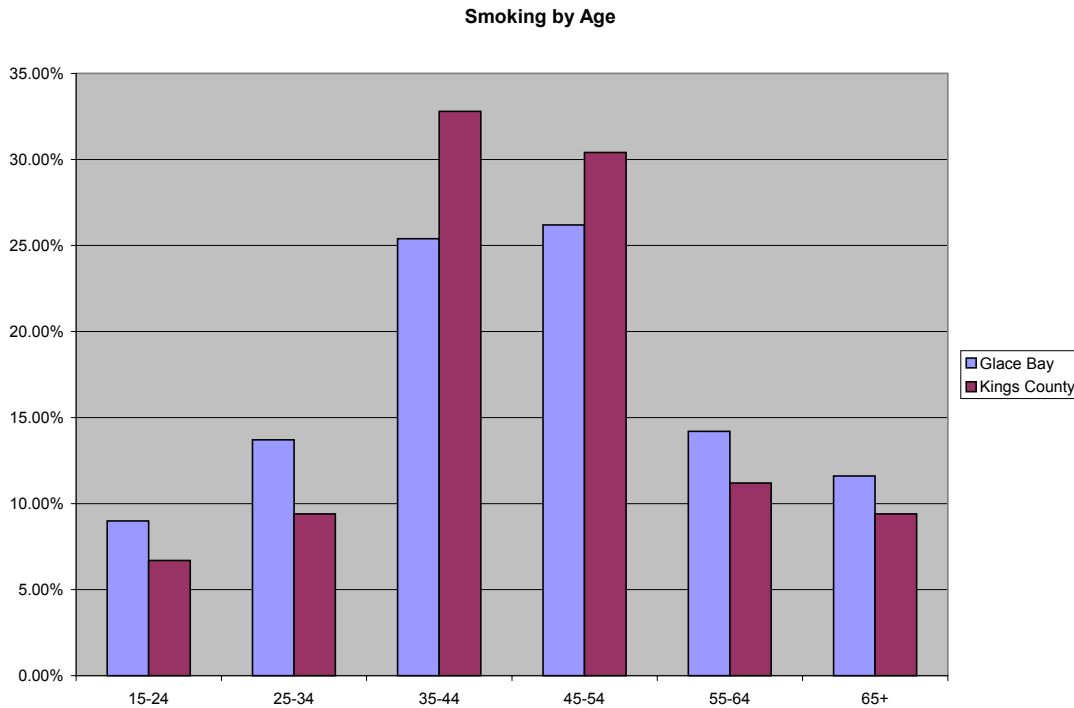
## Main Activity

In Glace Bay, tobacco is used most frequently among those who are employed (36.4%), and least frequently among students (4.9%). In Kings County, the vast majority of smokers are employed (60%), while those who selected “other” as their main activity had the lowest tobacco use (4.2%).

## Marital Status

In both Glace Bay and Kings County, the majority of smokers are either married or in a common-law relationship. (Glace Bay: 56.2%, Kings County: 67.5%). Widows reported the lowest rates of tobacco use (Glace Bay: 6.7%, Kings County: 3.3%). This could be a reflection

of age, as middle-aged people smoke the most, and those who are 65 and older have a relatively low rate of smoking.



### *Education*

Those with a high school education (grades 9-12) show the highest rates of tobacco use. In Glace Bay, 54.7% of smokers have only a high school education, and in Kings County, 46.5% of smokers have only a high school education. Among the lowest rates of smokers are those who are university educated. In Glace Bay, 6% of smokers have a university education, and in Kings County, 8.7% of smokers have a university education.

### *Income*

A slight difference is found between Glace Bay and Kings County with regard to income levels of smokers. In Glace Bay, the highest percentage of smokers is found in the \$15 000-\$19 999 income category (14.9%). In Kings County, income levels of smokers are slightly higher, \$20 000-\$24 999 (14.0%).

## **Tobacco Use and Health**

### *General*

Most smokers in both Glace Bay and Kings County rate their health as very good to good. In Glace Bay, smokers' self-health ratings were higher than those of non-smokers. This is likely a fallacy, and could be part of the reason why smoking rates remain so high in these areas.

Non-smokers use vitamins and herbal supplements more frequently than smokers. This is evidence that non-smokers have healthier lifestyle practices than smokers. Similarly, smokers drink more coffee, exercise less, and visit their doctors more frequently. This further discounts smokers' self-health ratings.

### *Medications*

In Glace Bay, 7.7% of smokers are currently taking heart medication, as are 6.5 % in Kings County. In Glace Bay, 17.1 % of those who take blood pressure medication daily are smokers, and 10.5% of those in Kings County. There is also a relatively high usage of birth control users among smokers; 5.9% in Glace Bay, and 6.9% in Kings County.

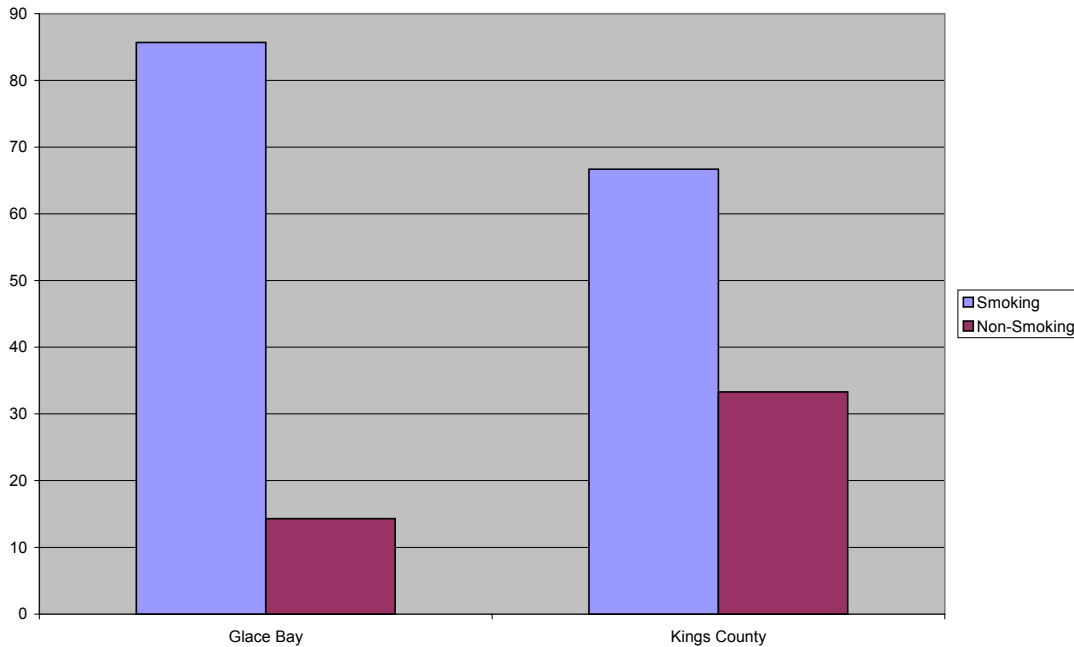
## **Tobacco Use and Children**

Alarmingly, 78.4% of daily smokers in Glace Bay and 76.1% of daily smokers in Kings County have children in the home. In homes where at least one person smokes inside of the house, ratings of children's health were lower for both Glace Bay and Kings County. In Glace Bay, only 65.7% of smokers rated their child's health as excellent, vs. 79.6% of non-smokers. Similarly, in Kings County, only 57.7% of smokers rated their child's health as excellent, compared with 62.9% of non-smokers.

In both locations, a high number of smokers are smoking inside the house, in spite of the presence of children who are currently taking asthma medications (41.9% in Glace Bay and 30.6% in Kings County). One finding that is particularly astonishing is that in homes where people smoke inside the home, the use of Ritalin or ADD medication is much higher than in homes where there is no smoking. In Glace Bay, 85.7% of children who are on Ritalin are in a smoking home (versus 14.3% in a non-smoking home). In Kings County, that percentage is slightly lower, with 66.7% of children on Ritalin living in smoking homes, compared with 33.3% in non-smoking homes. See the graph on the following page for illustration.

A study by W. M. Dinn et. al (2003) shows a relationship between cigarette smoking and ADHD-like symptoms. It would stand to reason, then, that exposure to second-hand smoke would show similar effects.

Ritalin use in Children



## Tobacco Use and Employment

In Glace Bay, unemployment rates are slightly higher for smokers (17.7%) than non-smokers (11.5%). Kings County shows the same trend, with 9.9% of smokers being unemployed, compared with 7.4% of non-smokers.

The highest percentage of smokers is found in the sales and service industry. In Glace Bay, 23% of smokers are in this line of work, and in Kings County, 21.7% are. The lowest percentage of smokers work in science; 1.5% in Glace Bay, and 1% in Kings County.

## Tobacco Use and Values

Despite the large number of people who are still exposing their families to second-hand cigarette smoke, there is virtually no difference in ratings of core values between smokers and non-smokers in either location. For both groups, family life was rated as the highest value, with material wealth given the lowest rating.

## Summary

Overall, Glace Bay and Kings County are fairly similar with regard to tobacco use. With lower levels of education associated with higher smoking rates, it is imperative that we educate people with regard to tobacco use. Those who have not had the opportunity to attain higher education should at least have opportunity to educate themselves as to the effects cigarette smoking. Of particular concern is smoking in a household where there are children present. Children who grow up in smoking households have poorer health than their non-smoking household counterparts, and are more likely to be on medications. Ritalin, in particular, is much more frequently used in children who live in smoking households. Unemployment rates are slightly higher in smokers than in non-smokers, but it is difficult to speculate as to why this might be. Perhaps the stress of unemployment leads to an increase in tobacco use, or the fact that tobacco users are less educated means that they are less likely to find employment. The higher rate of tobacco use in Glace Bay could also be attributed to higher rates of unemployment, given that there is a higher rate of smoking among the unemployed.

## Bibliography

Dinn, W.M., Aycicegi, A., Harris, C.L. (2003). Cigarette smoking in a student sample: Neurocognitive and clinical correlates. *Addictive Behaviours*.

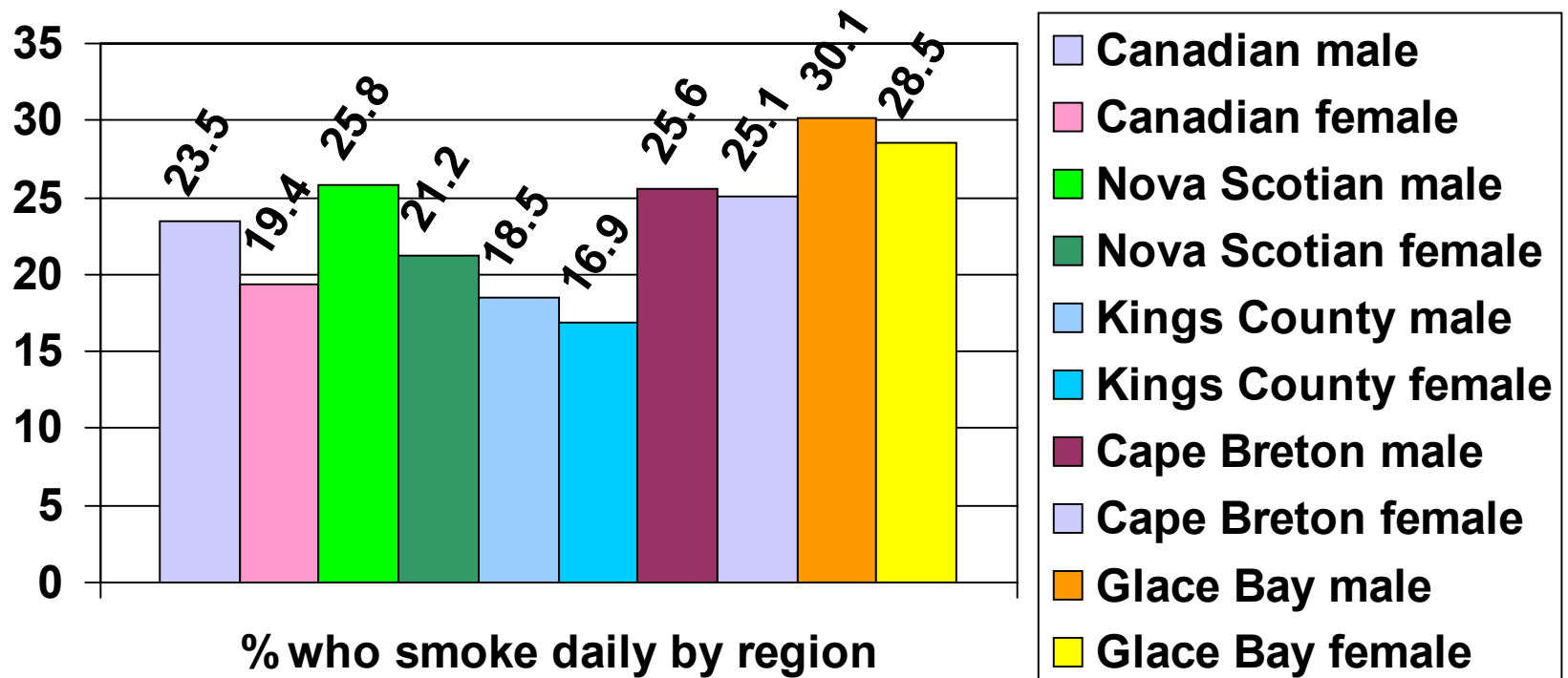
# Examining tobacco use and health in Glace Bay and Kings County, Nova Scotia

Marcie D. Smith & Dr. Peter MacIntyre

University College of Cape Breton

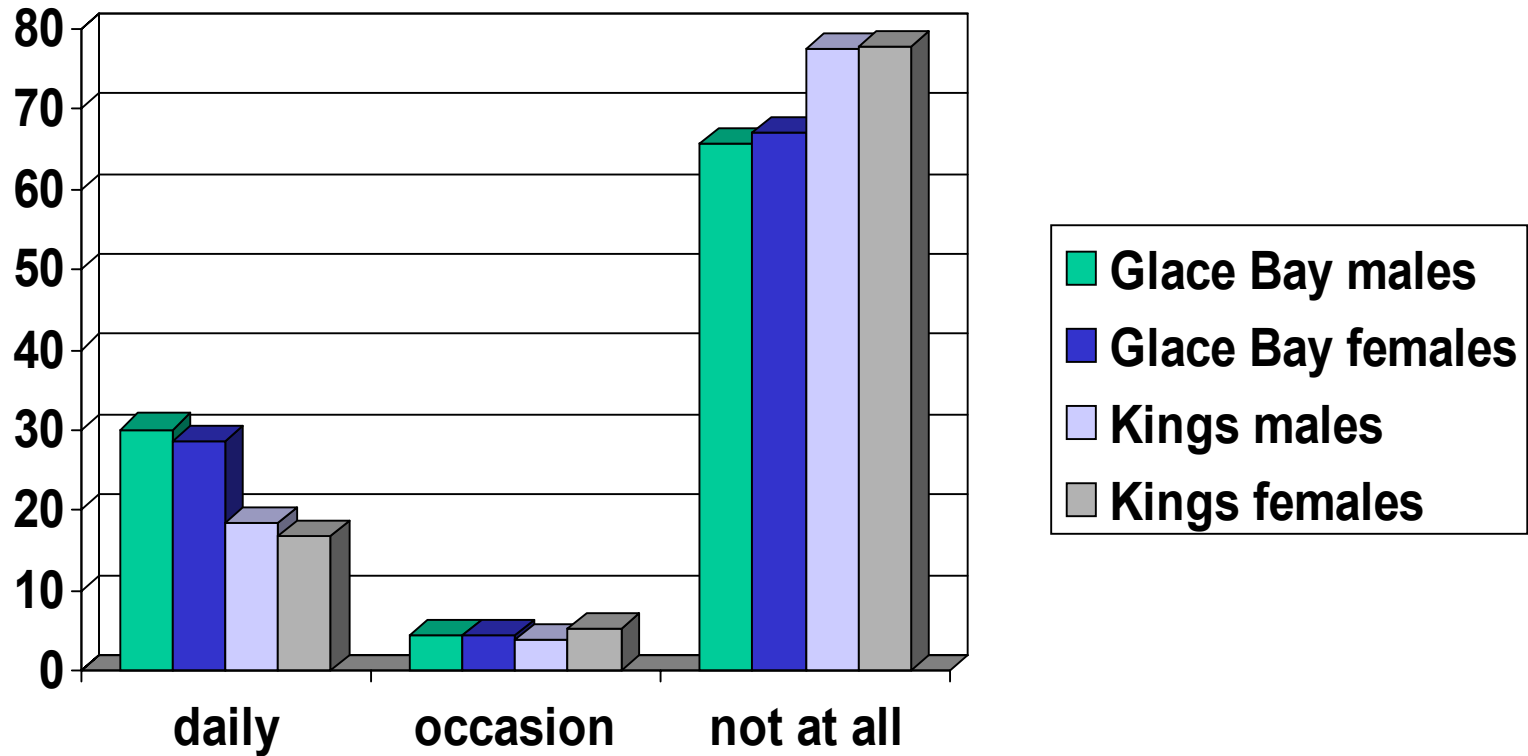


# National/Regional Comparisons:

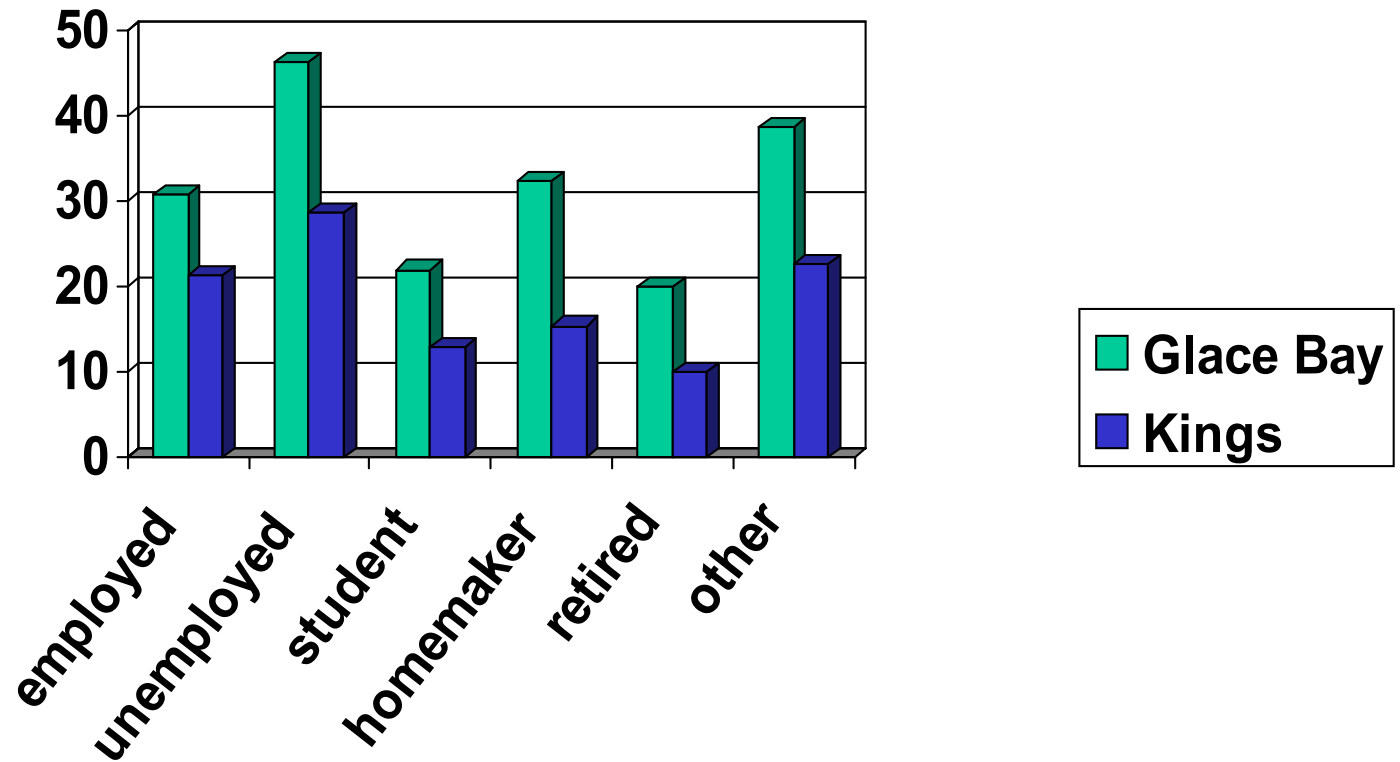


•Glace Bay's % of daily smoking is higher than the national average, while Kings County is below.

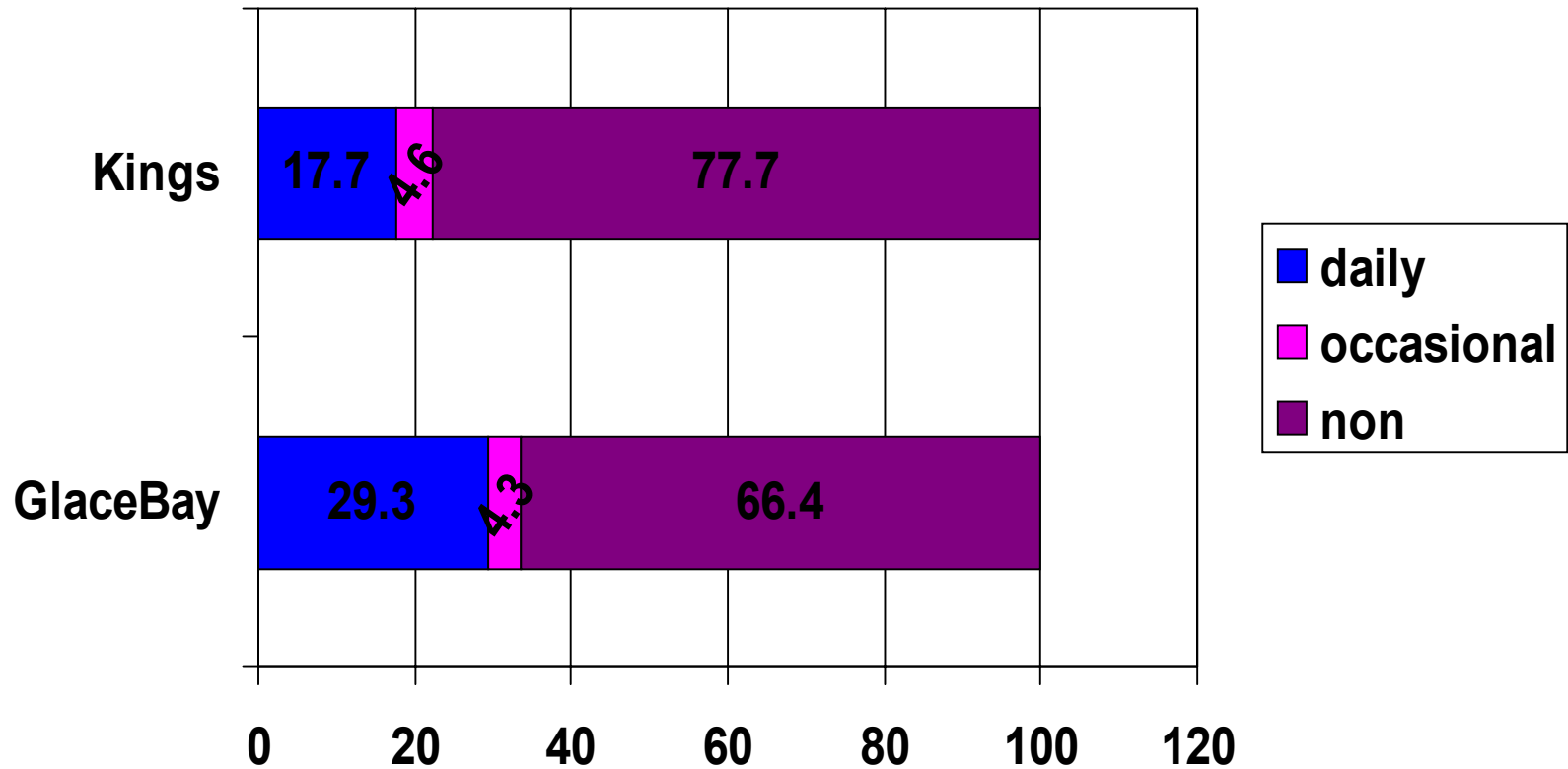
# Smoking habit in relation to sex



# The employment status of those smoking daily

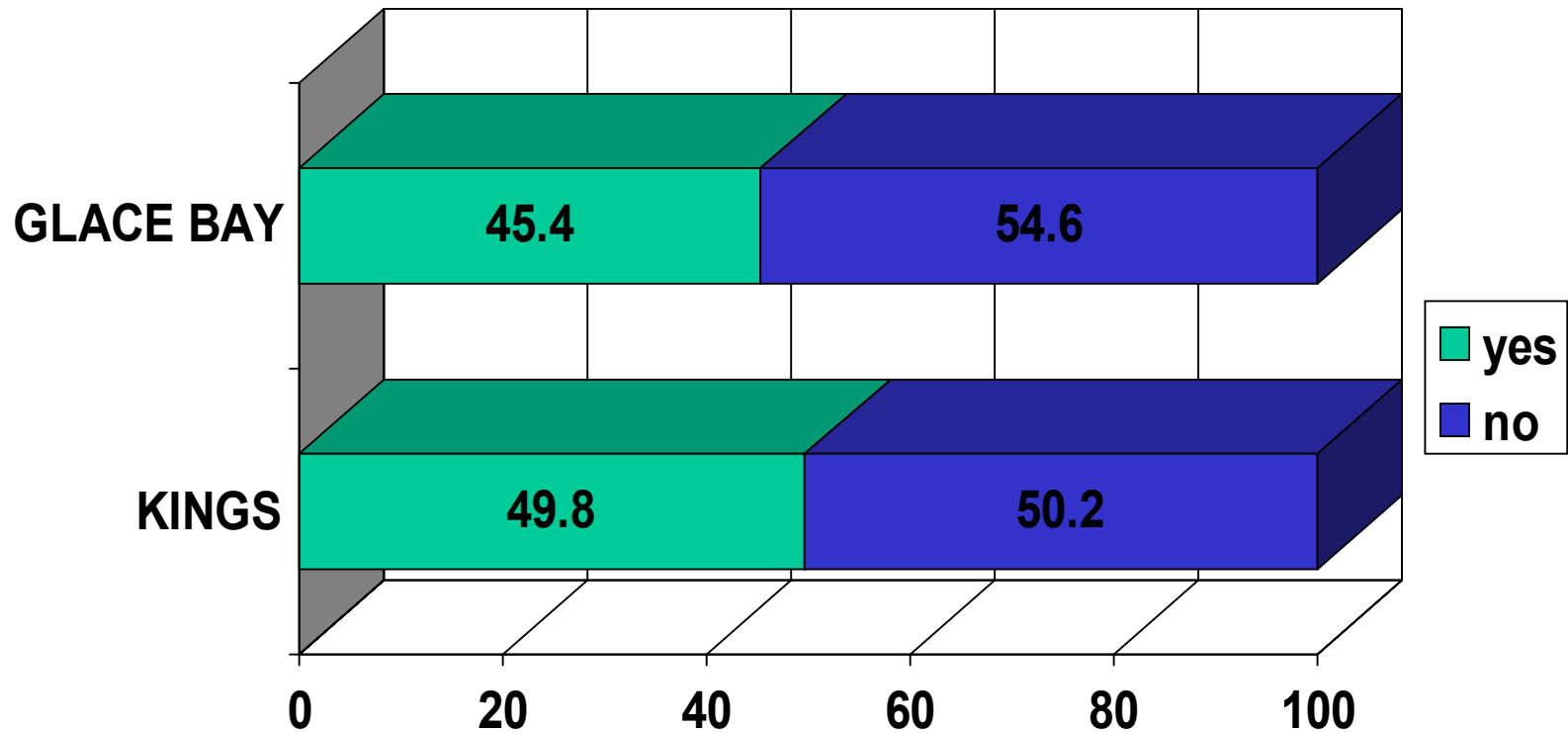


# At the present time do you smoke?

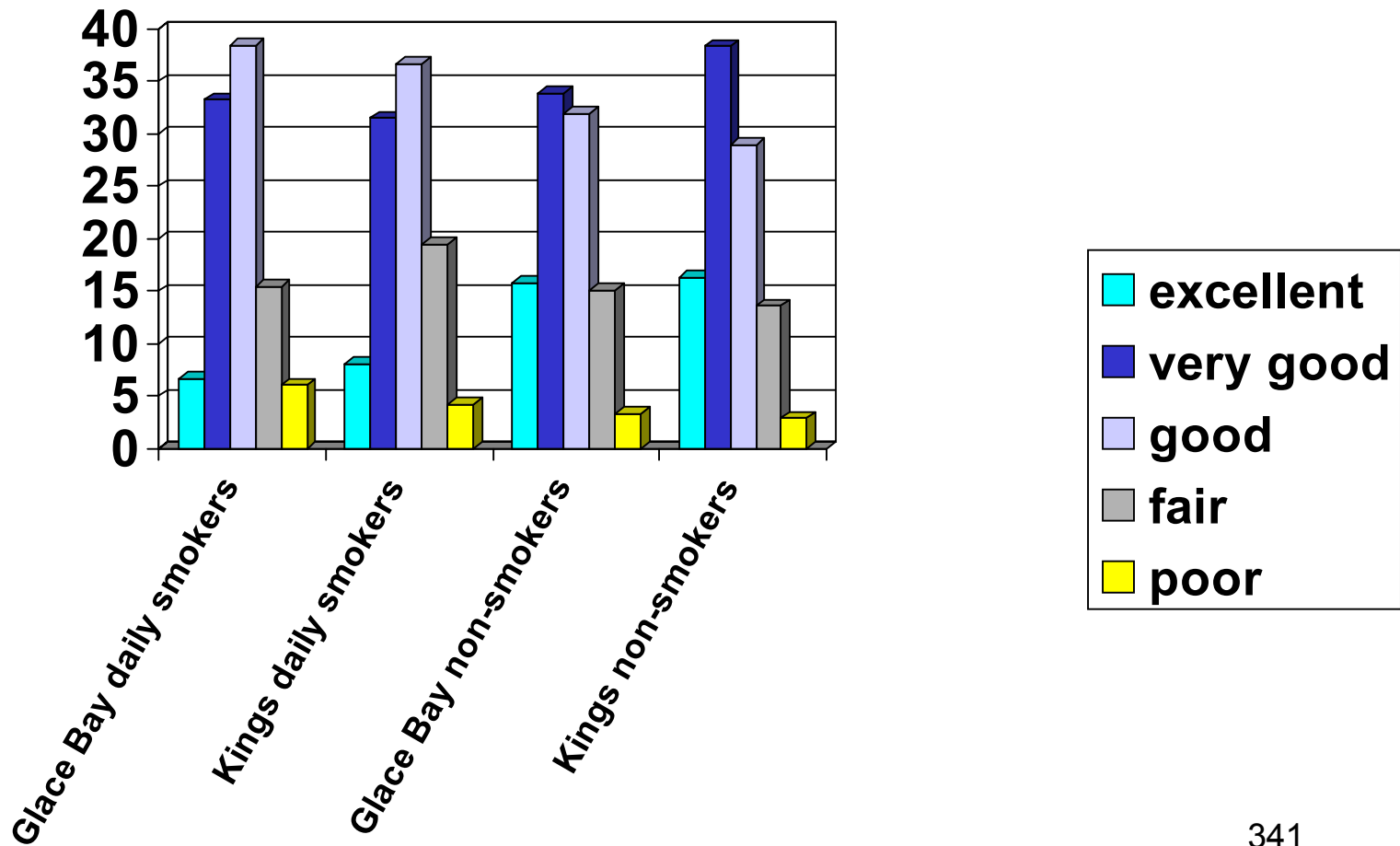


\* Numbers represent %

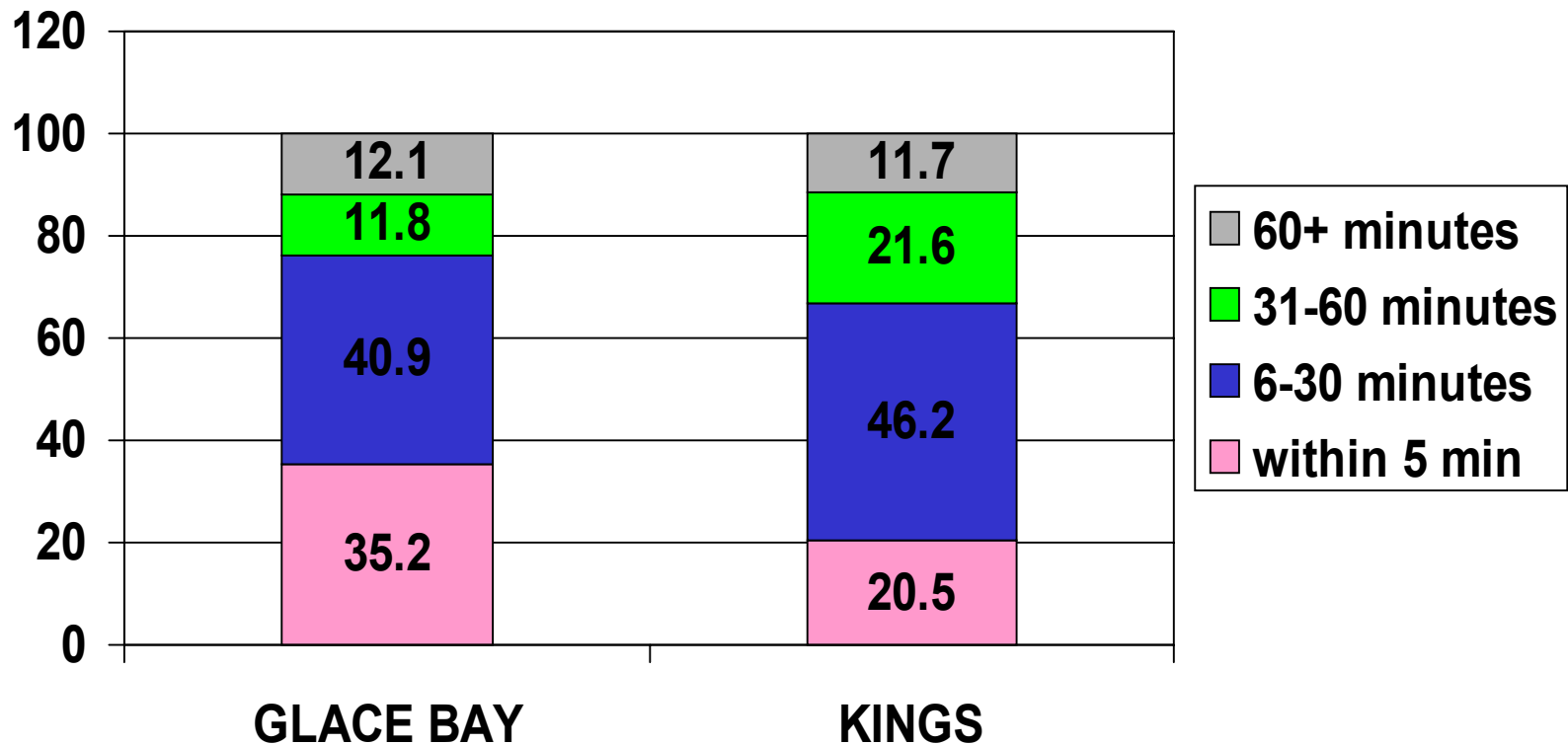
# Have you ever smoked cigarettes at all?



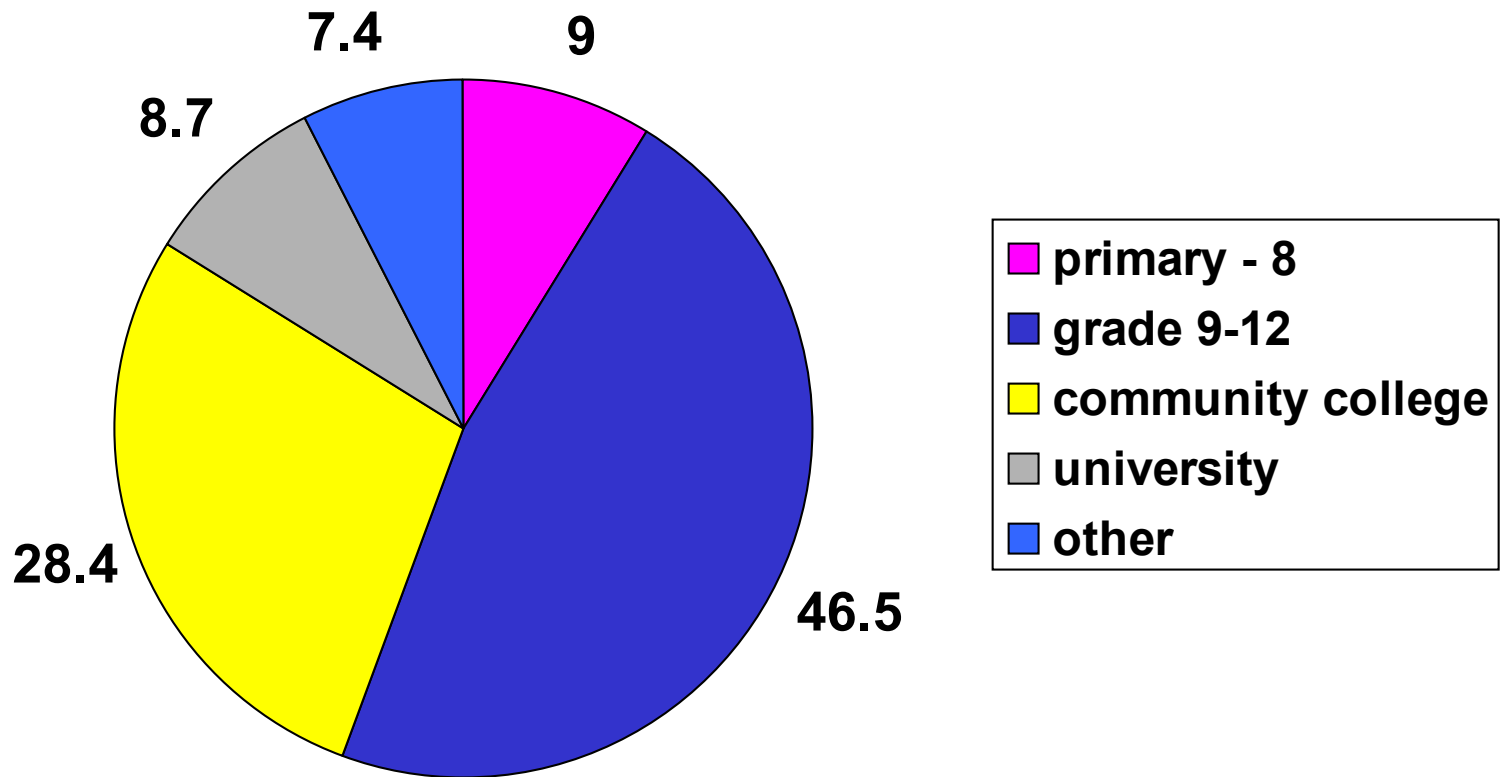
# Self-reported health of smokers and non-smokers:



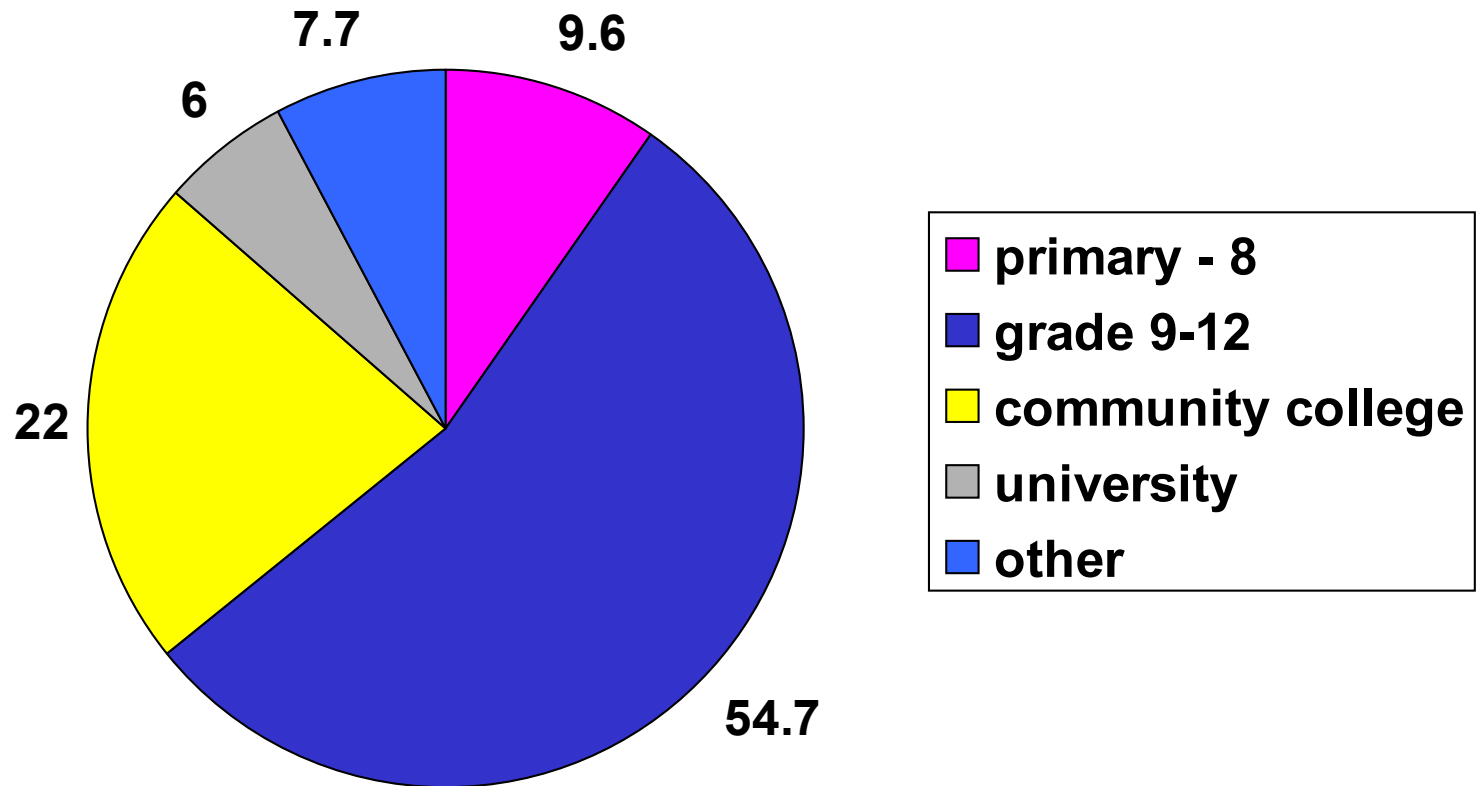
# Nicotine dependency: How soon after you first wake up do you smoke your 1<sup>st</sup> cigarette?



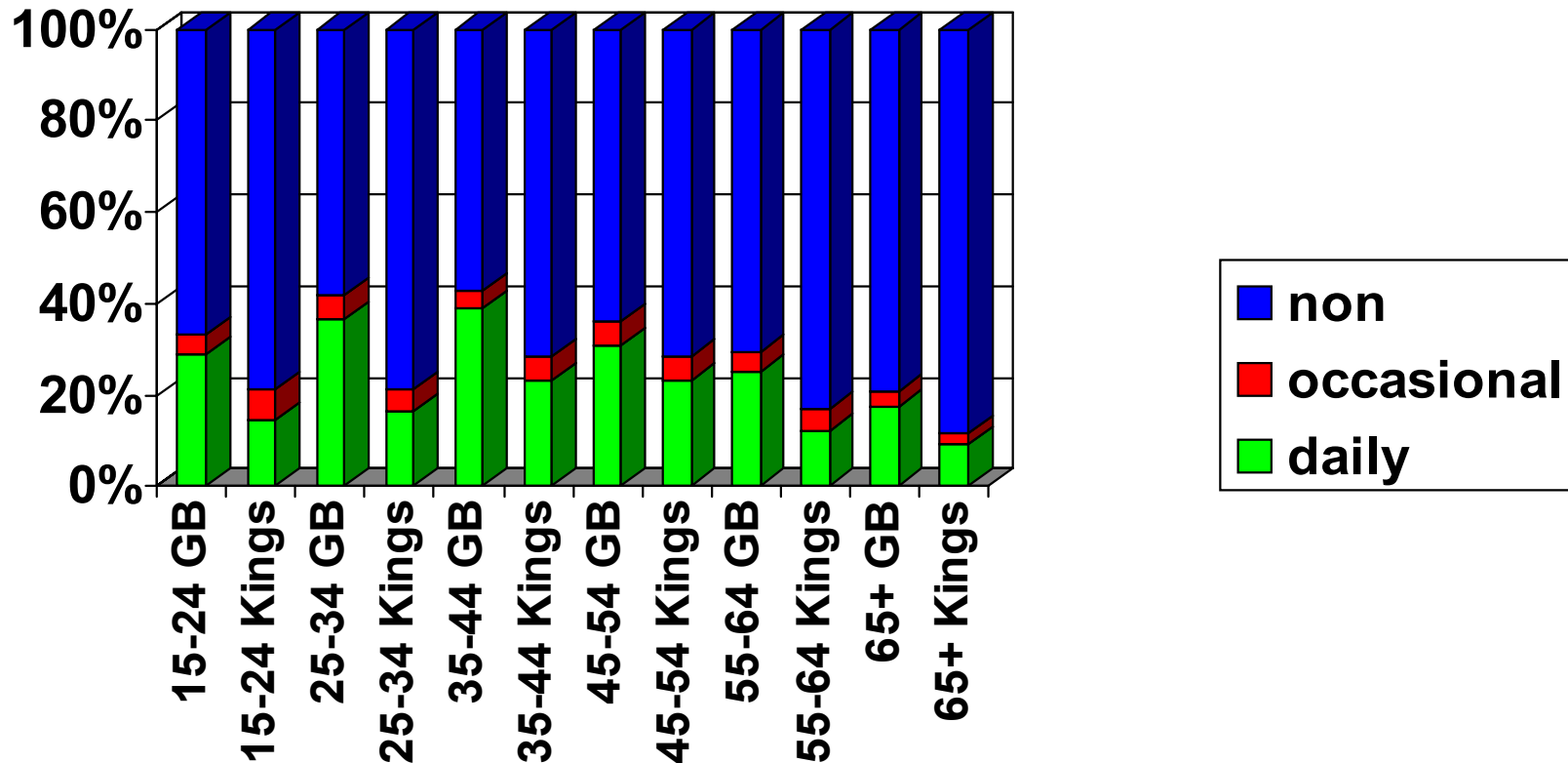
# Education level and daily smoking: County Kings



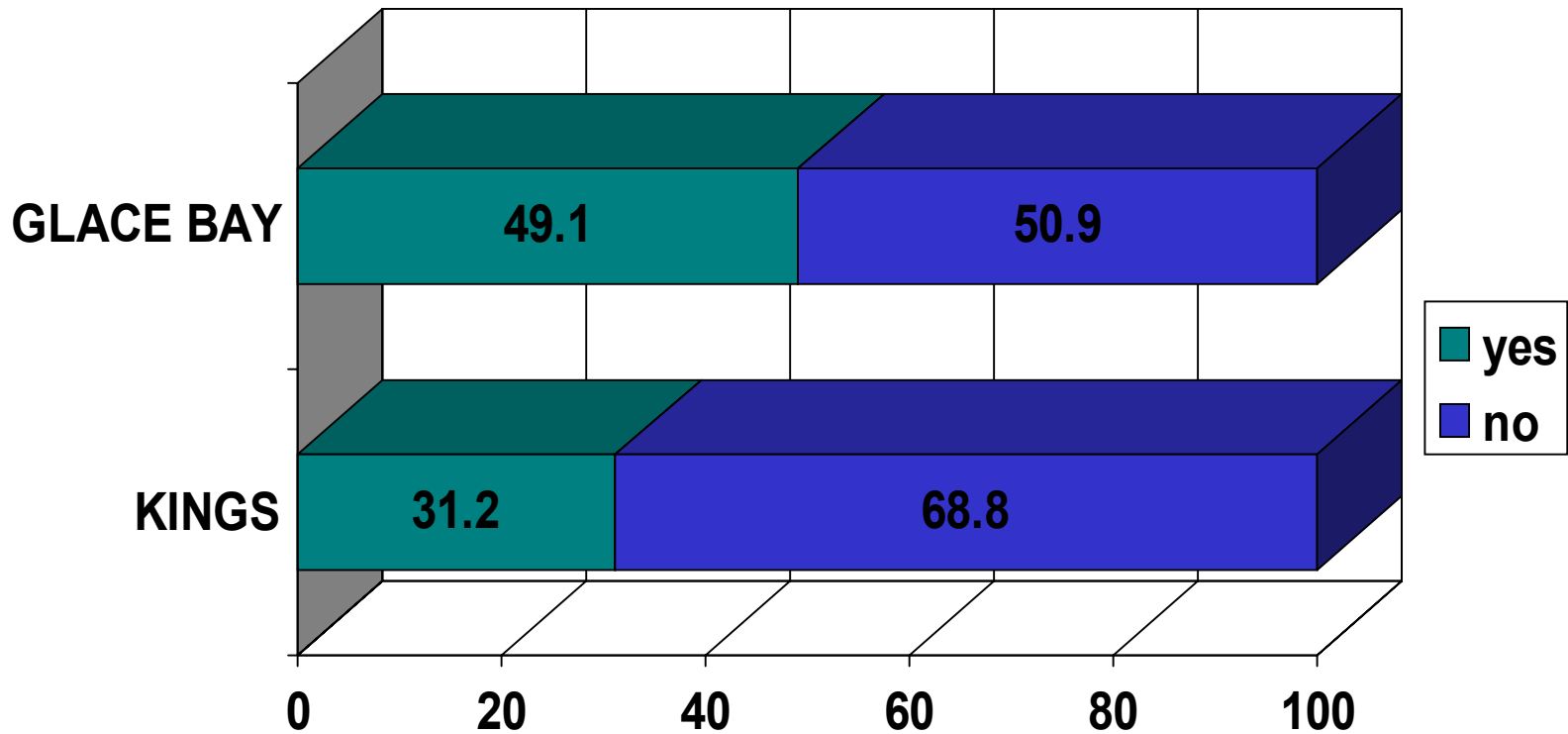
# Education level and daily smoking: Glace Bay



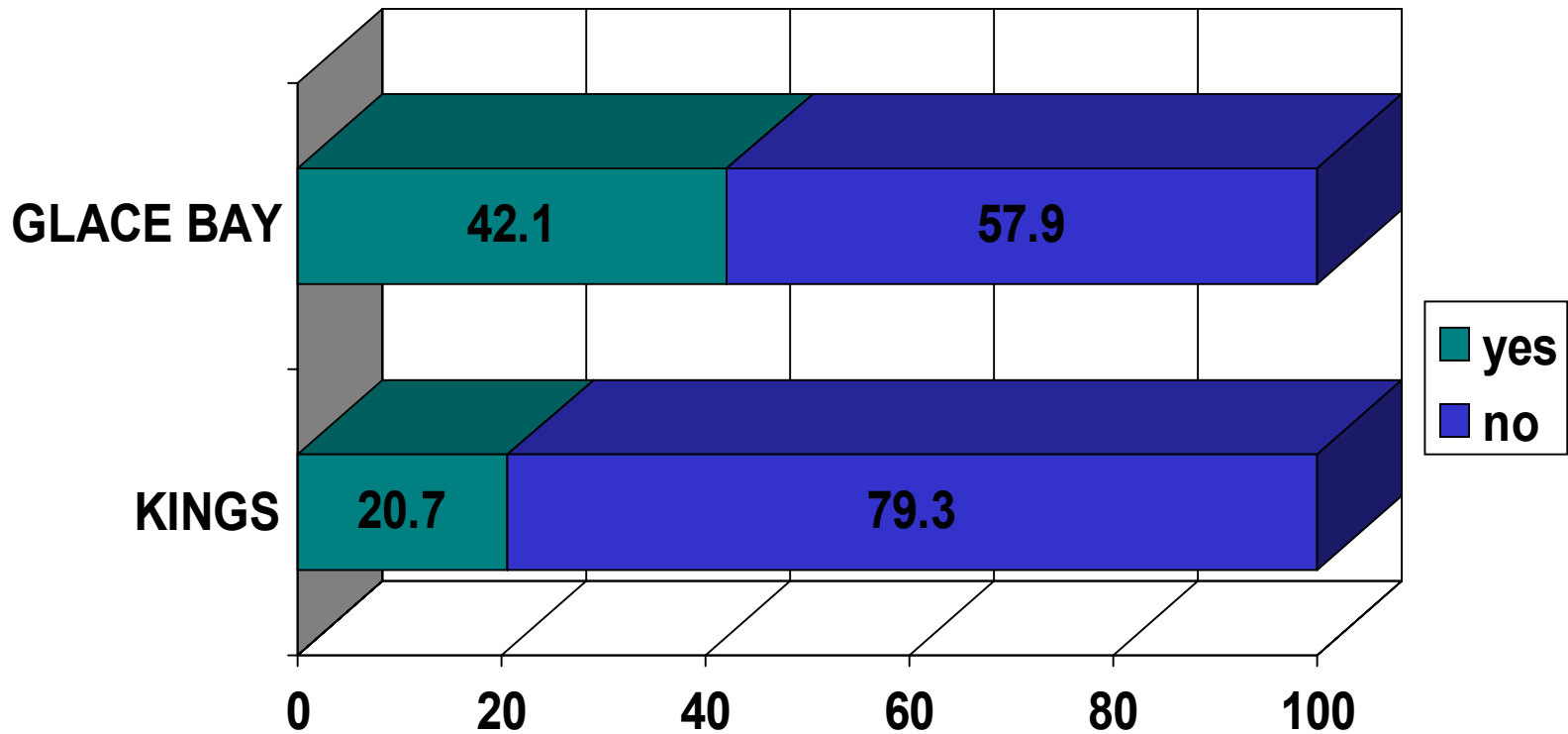
# Smoking patterns by age group in Glace Bay and Kings County:



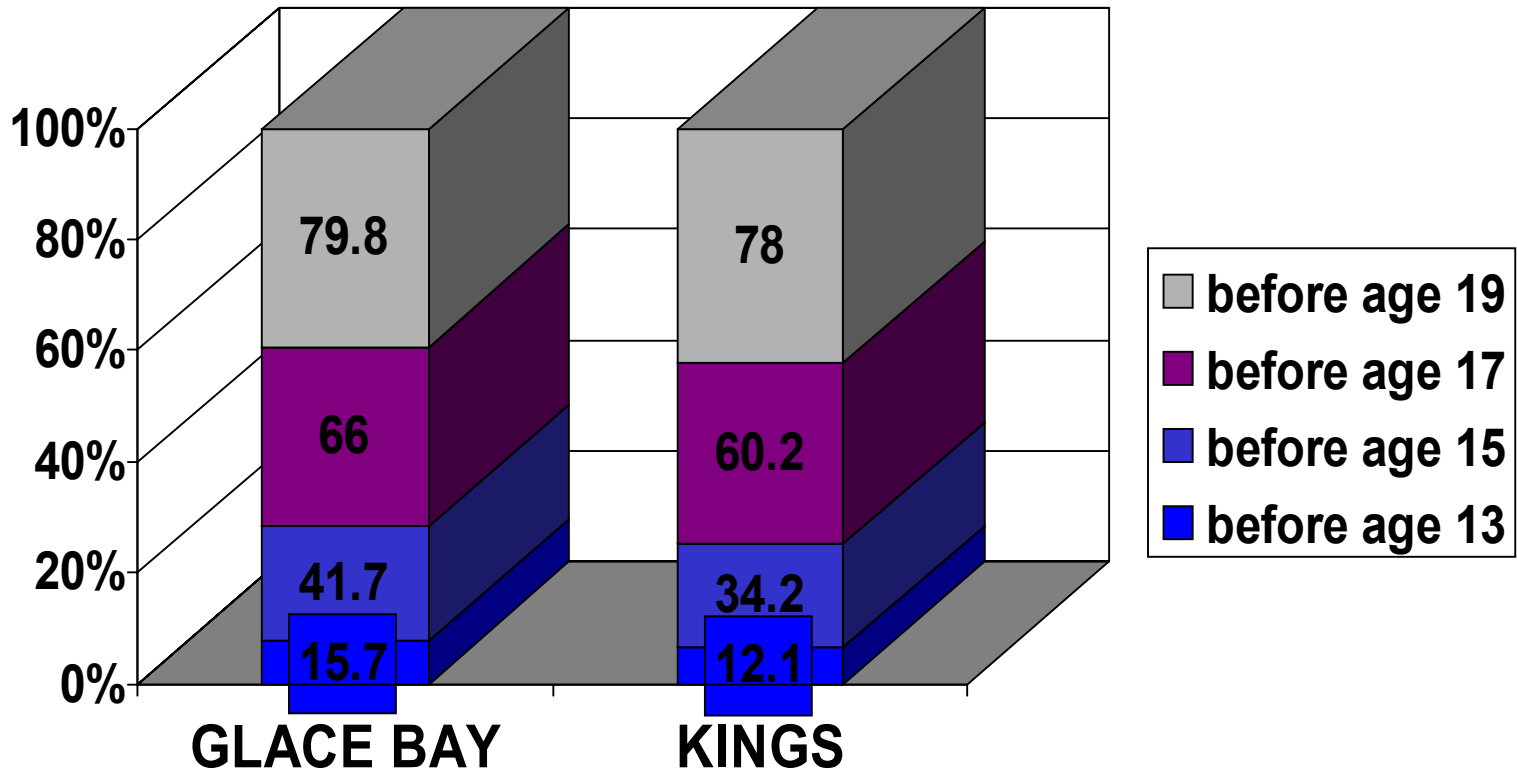
# Does anyone in your household smoke regularly?



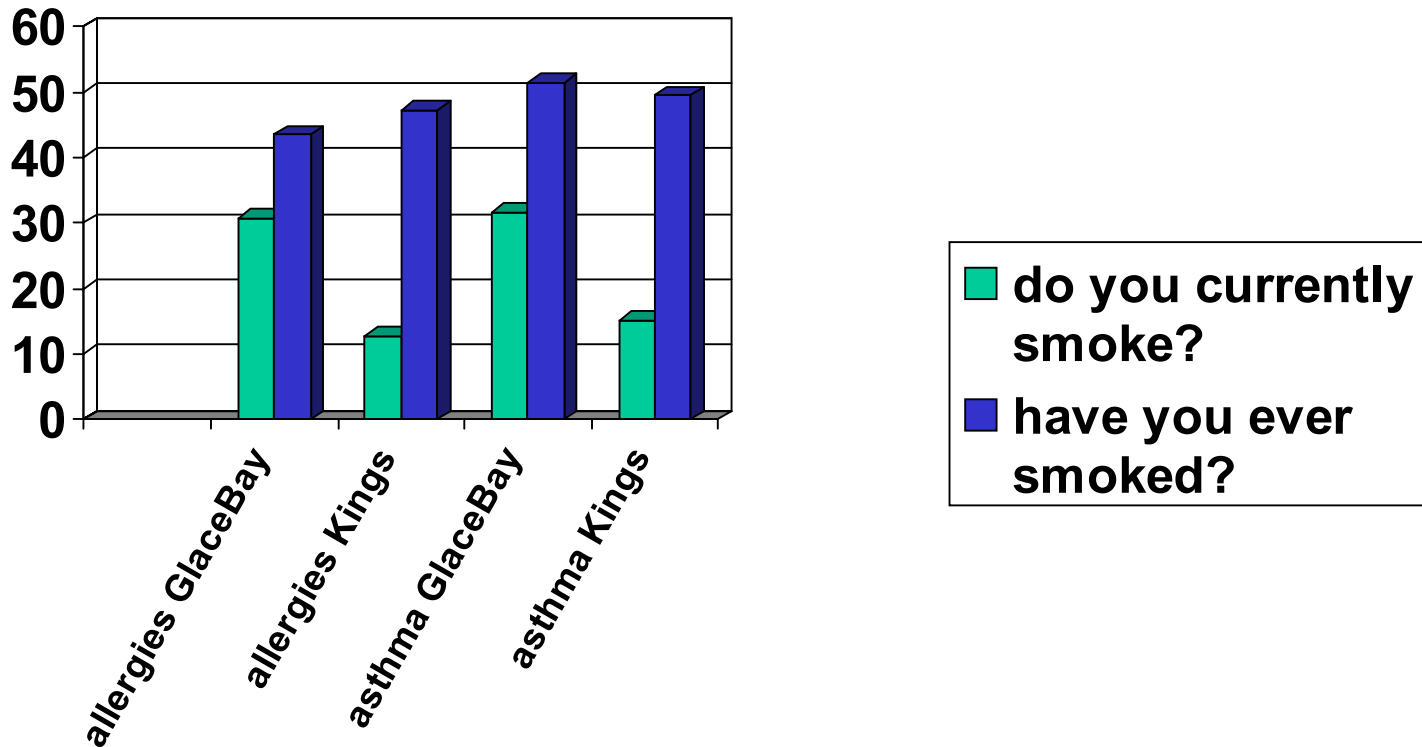
# Does anyone in your household smoke inside of the home?



# Percentage of those who began smoking before a certain age:

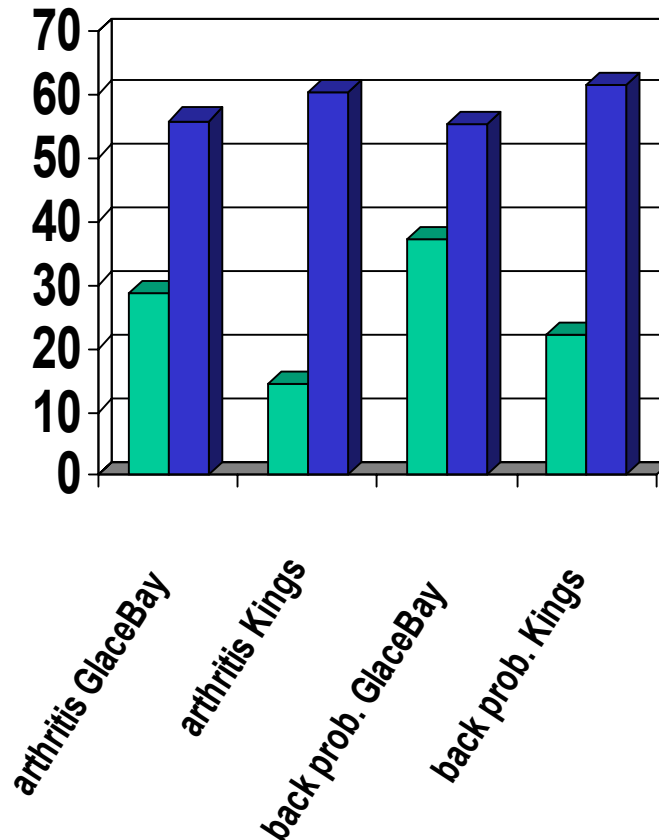


# Chronic Conditions: Quit Rates



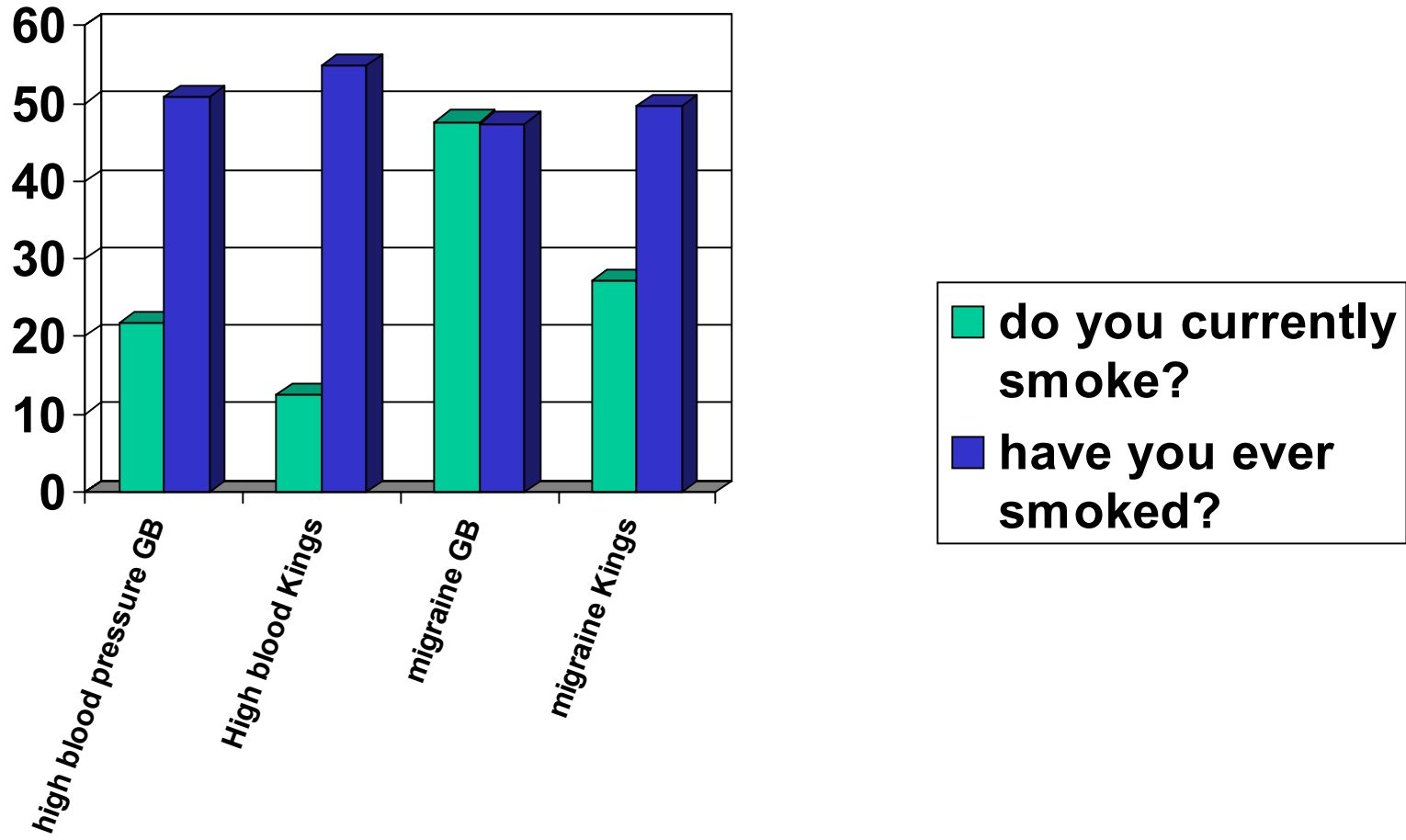
\* The difference between the purple and blue bars are the people who quit smoking

# Chronic Conditions: Quit Rates



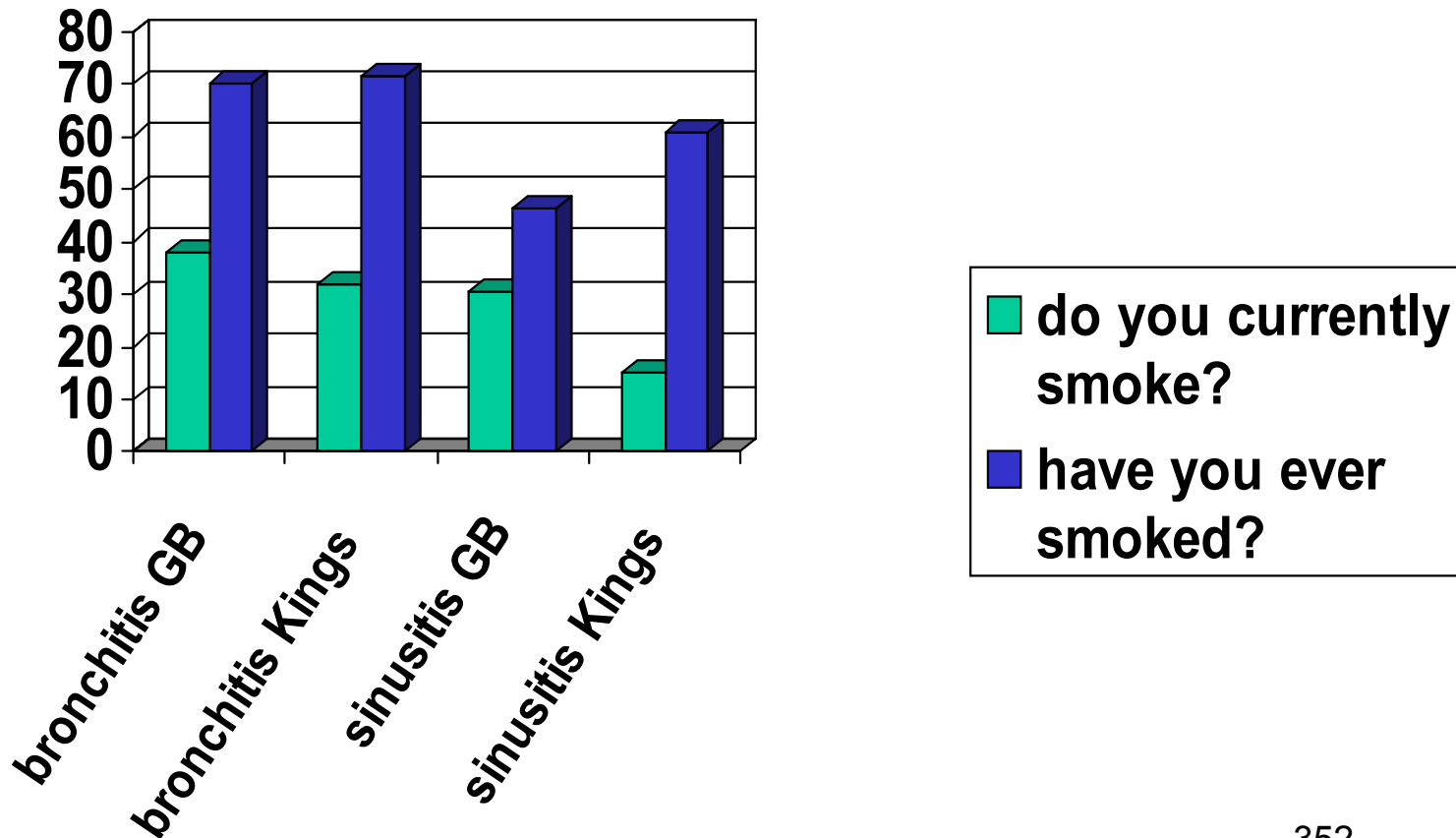
do you currently smoke?  
Have you ever smoked?

# Chronic Conditions: Quit Rates

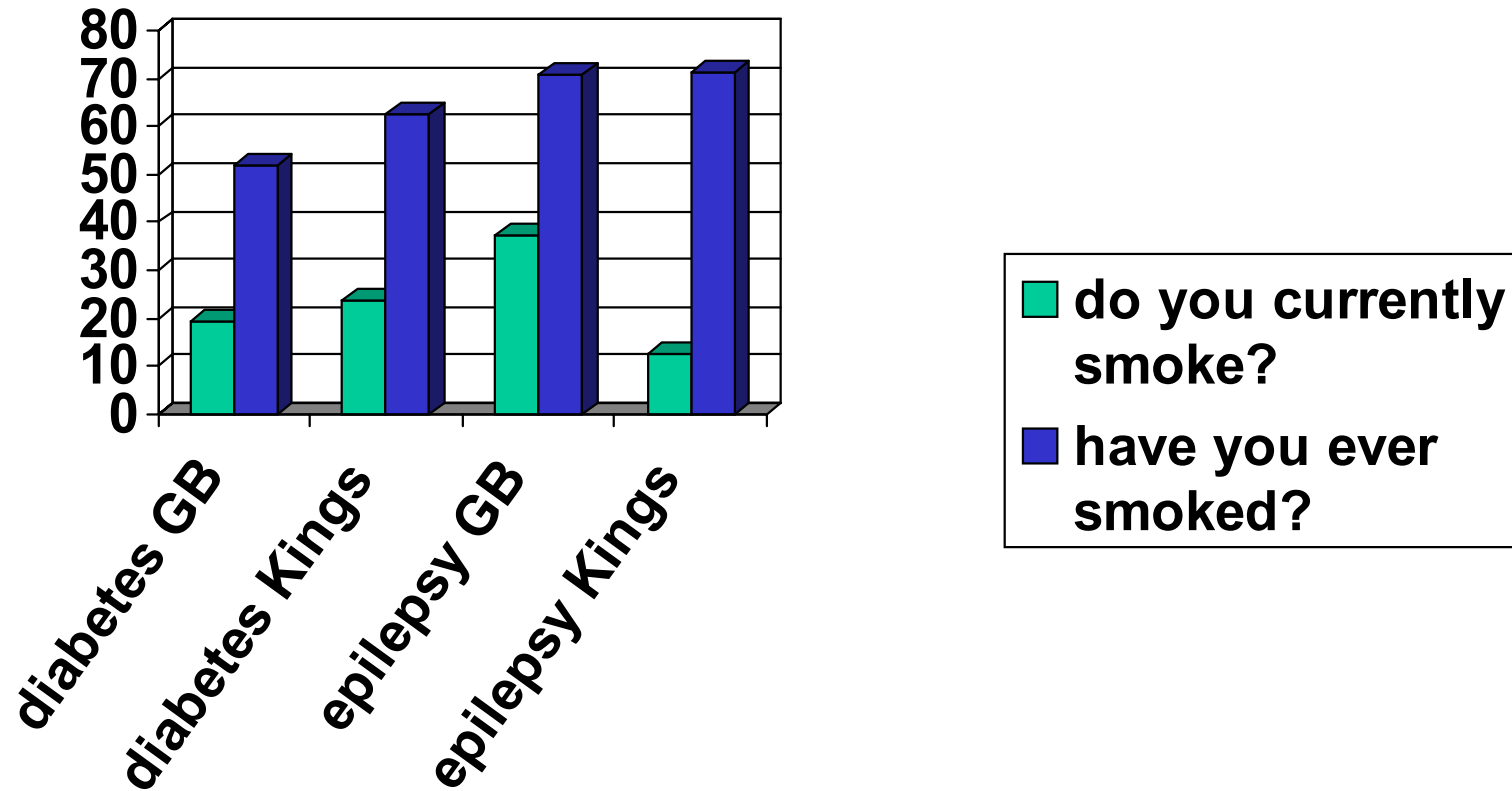


\* It is interesting to note only a 0.2% quit rate in migraine sufferers in Glace Bay

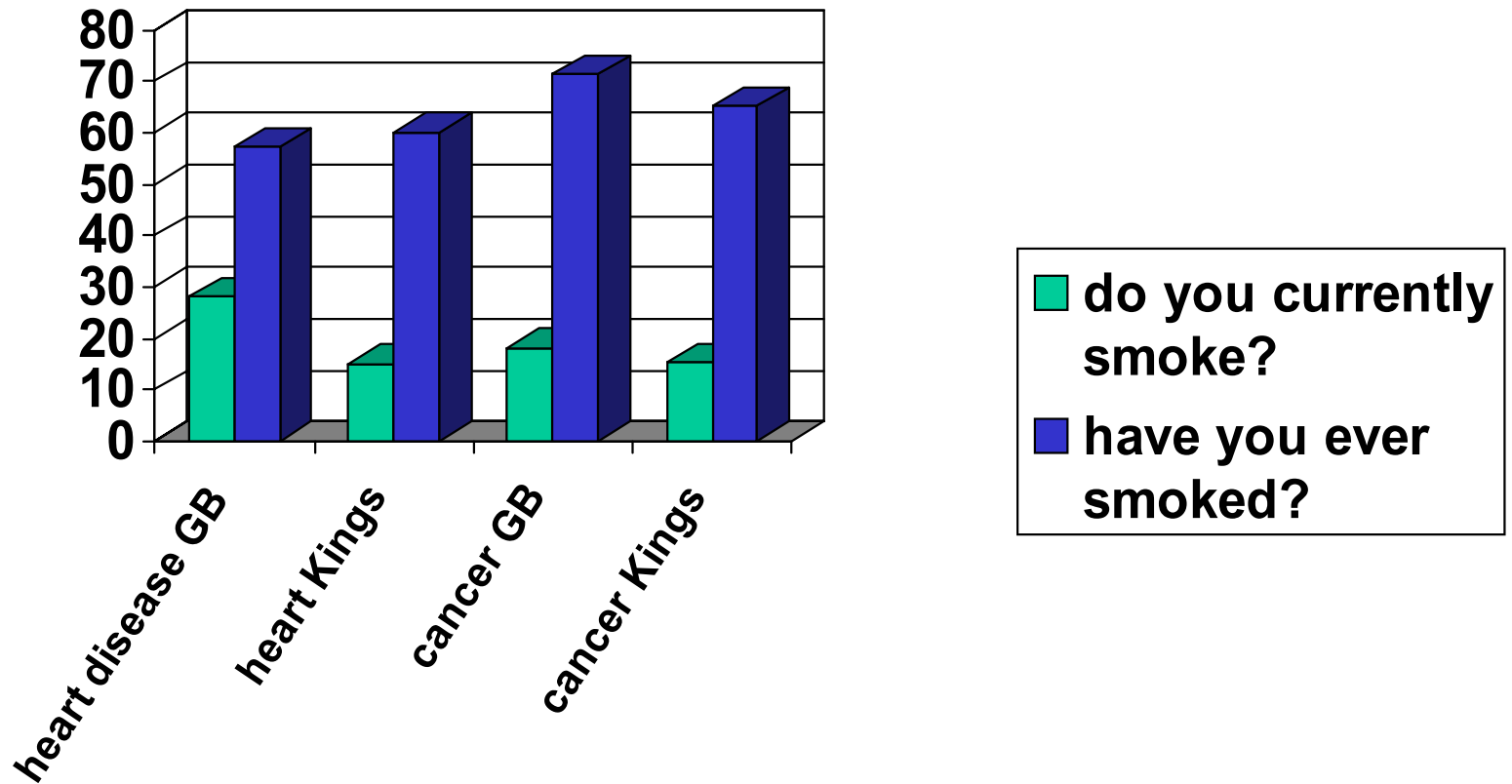
# Chronic Conditions: Quit Rates



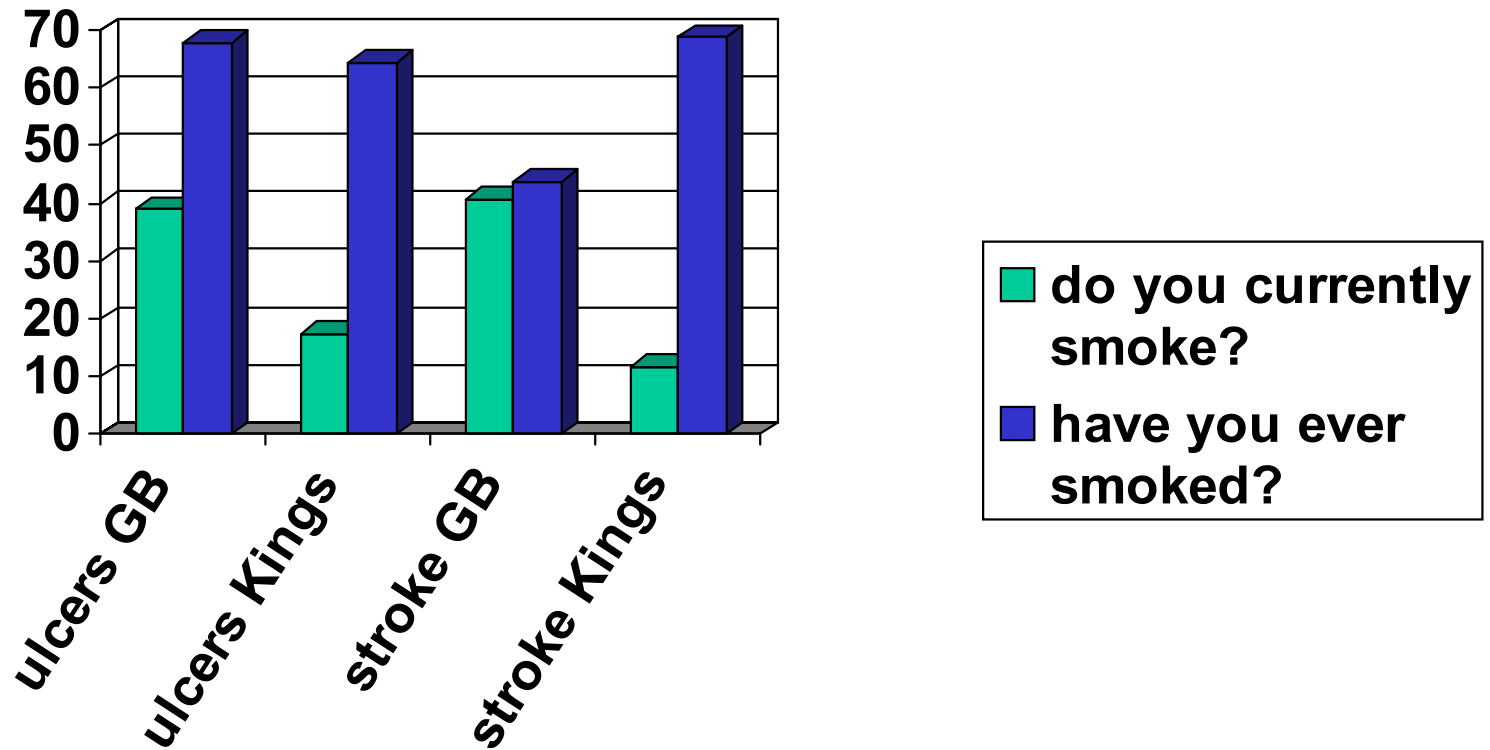
# Chronic Conditions: Quit Rates



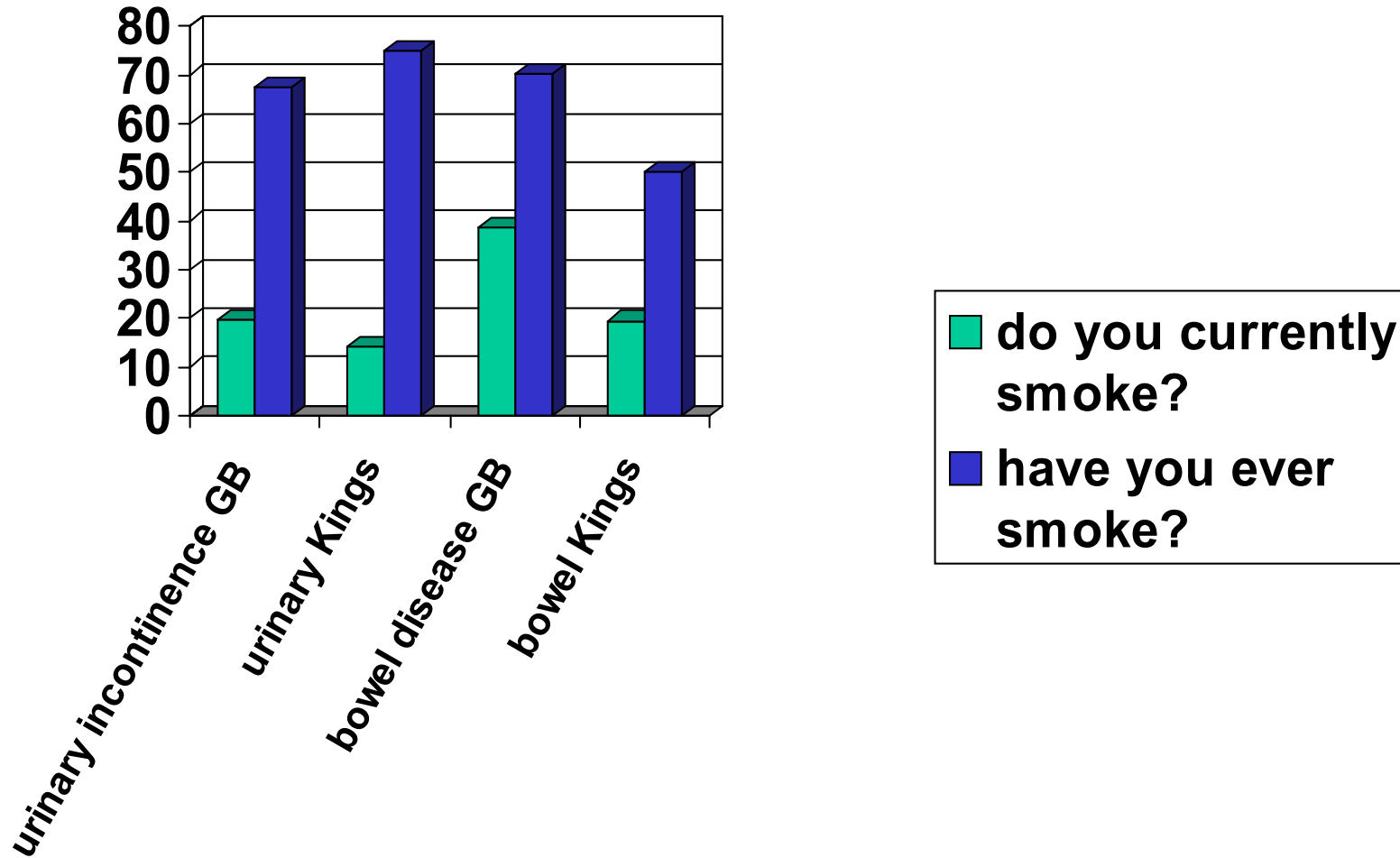
# Chronic Conditions: Quit Rates



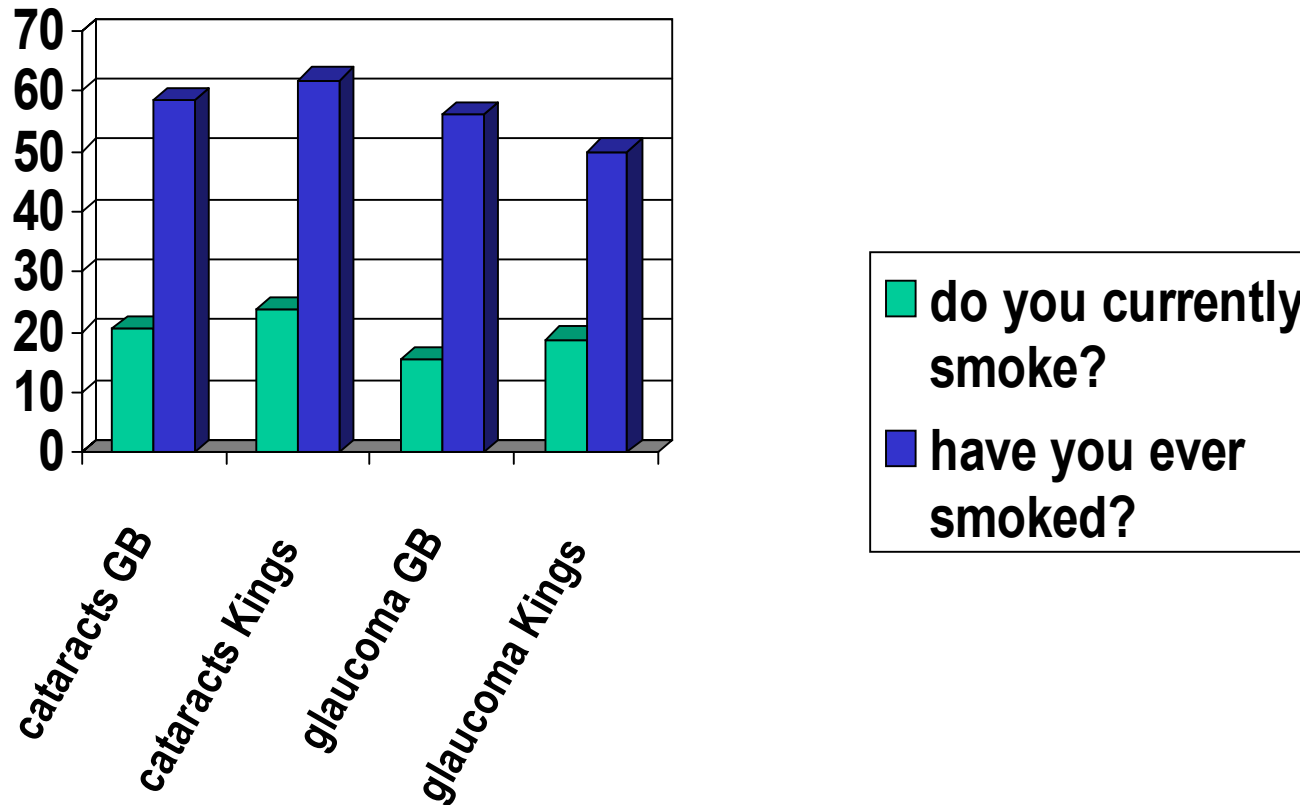
# Chronic Conditions: Quit Rates



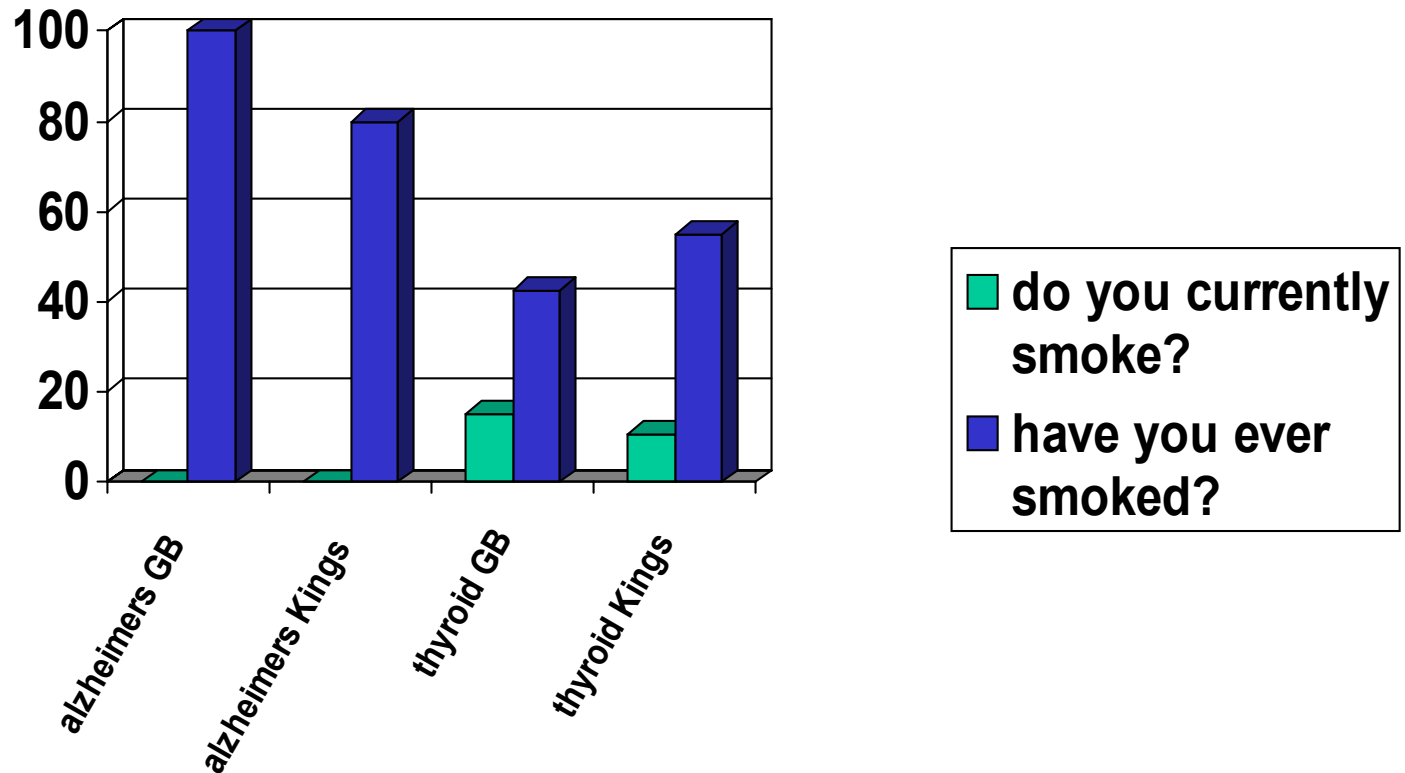
# Chronic Conditions: Quit Rates



# Chronic Conditions: Quit Rates



# Chronic Conditions: Quit Rates



# Conclusions



- Schnoll et al (2002) indicated 30-40% smokers continue to smoke after diagnoses of a serious condition. Persons are less likely to quit if unaware of extreme dangers of smoking, and uneducated about the seriousness of their disease. Other medical variables may play a role such as the stage of the disease and how far into treatment the individual is.
- Factors that influence readiness to quit after diagnoses:
  - if a family member smokes at home the person will be less likely to quit
  - Level of nicotine dependence
  - Awareness of the benefits of quitting
  - Level of emotional distress
  - Fatalistic outlook, “why bother...”
  - Cost of cigarettes in relation to other health costs

# Further research:

- A lot of research has been done to examine the variables that influence healthy people (no chronic conditions) to quit smoking. However, there is very little research done on why people with chronic diseases quit or do not quit smoking. In the future more research in this area would be beneficial especially in developing smoking cessation programs for people with chronic disease.
- Kings County has higher quit rates when living with chronic illness than those in Glace Bay. This lifestyle difference needs further research, with benefits including using Kings County as a model for a smoking reduction program in Glace Bay.