

**GRASF 2015 GIS & Remote Sensing Annual
Scientific Forum**

**Spatial distribution for the non-infectious diseases
in Al Ain City, UAE**



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Introduction

The statistics showed in recent decades a significant increase in non-infectious diseases until became a global problem.

The World Health Organization has indicated that these type of diseases caused the death of nearly 36 million per person per year, and 80 % of deaths are in poor and developing countries.

According to data from the World Health Organization in 2010, it has shown that the percentage of deaths from the non-infectious diseases in UAE approximately 67%.

Research Problem

- 1- Identify the spatial distribution of the non-infectious disease
- 2- Find the reasons of having non-infectious disease to one or more than members in the family
- 3- Recognize the environmental awareness among the family members
- 4- Discover the surrounding environmental area of the family and its effect on their health whether in negative or positive way

The importance of the study

- 1- Provide a field study that can be guided in the urban planning stage by the Department of Municipal Affairs and Urban Planning sector, as well as for the Ministry of Health.
- 2- Take advantage of the outputs of the study in a variety of disciplines , family medicine, urban planning , geography of urbanization , land use , medical sociology , community medicine , preventive medicine.
- 3- Benefit from the outputs of the study while placing special health education plans , and how to submit them to achieve the desired results in the target audience .

The main objectives of the study

1- Discovery of the quality of services surrounding family housing area and affecting their health , whether positively or negatively , and have the effect of increasing the rate of illness or decrease , such as parks , sports halls , factories , and others.

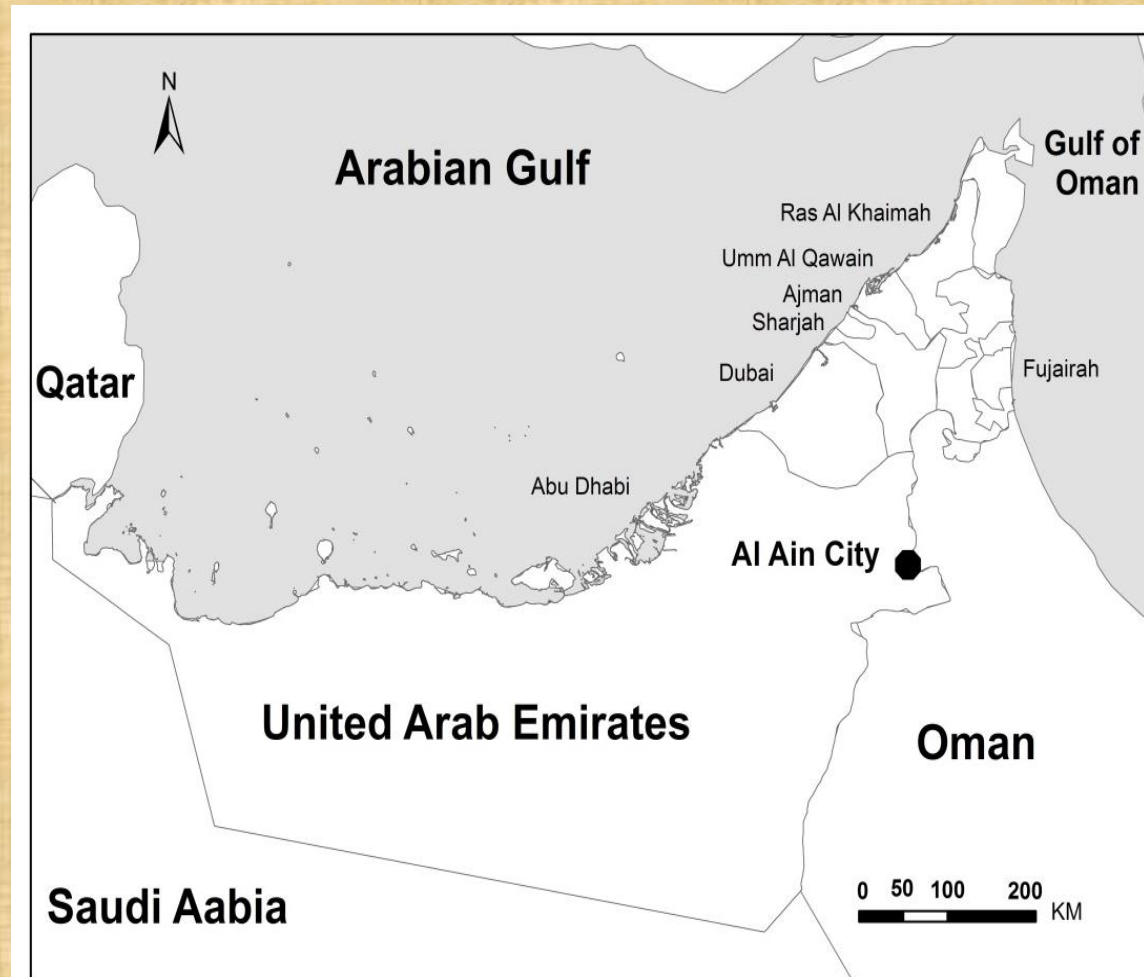
2- Knowing the reasons that lead to the injury of one or some of the family members of some diseases , and on its effects on family health

Questions (hypotheses) study

1. There is a direct correlation between the quality of services surrounding family housing area and family health.
2. There is a direct correlation between the cultural and social dimensions and between the individuals to adopt healthier behaviors that keeps them off non-infectious diseases .

Areas of study

A. the study area: the survey was distributed and covered the whole Al Ain district, which is 63 area

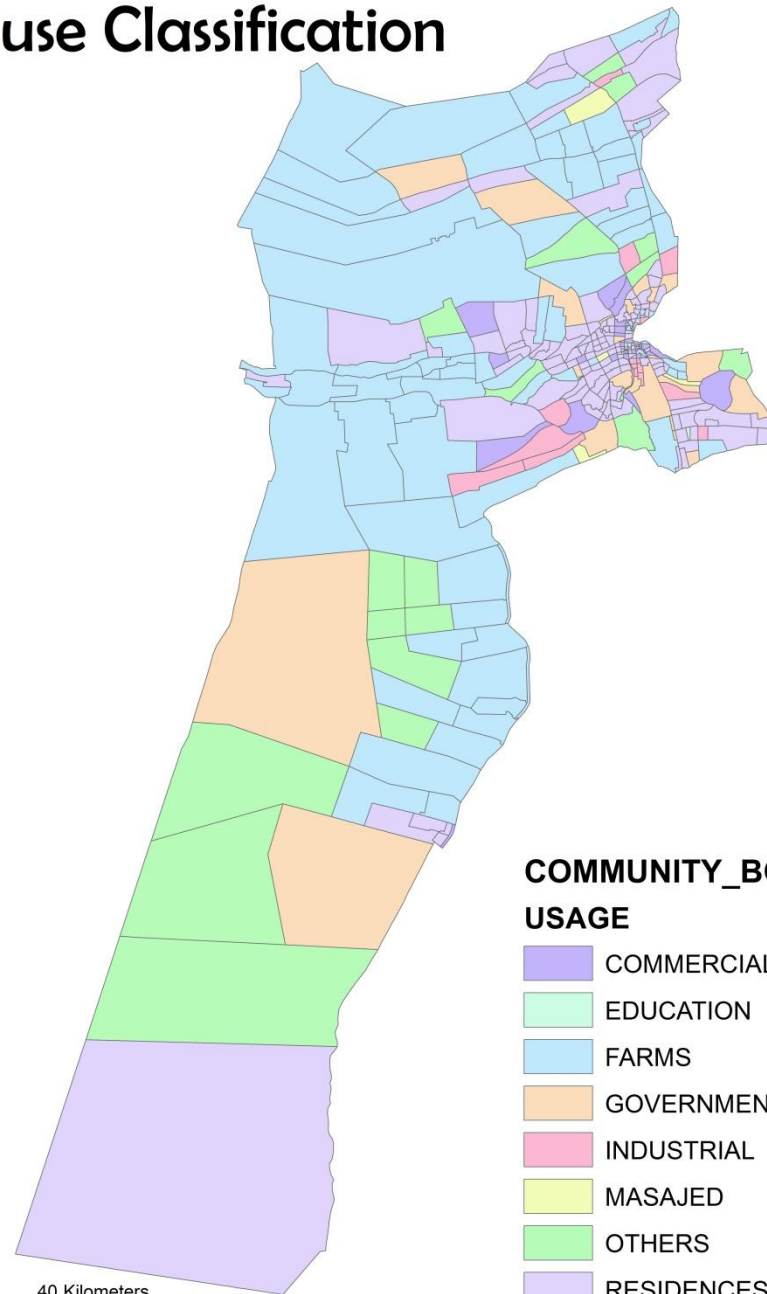


Areas of study

B . Field time : from June 1 / August 31 / 2014

C- human survey: The total study sample of 270 after the distribution of 500 questionnaires to different areas in Al Ain city.

Land use Classification



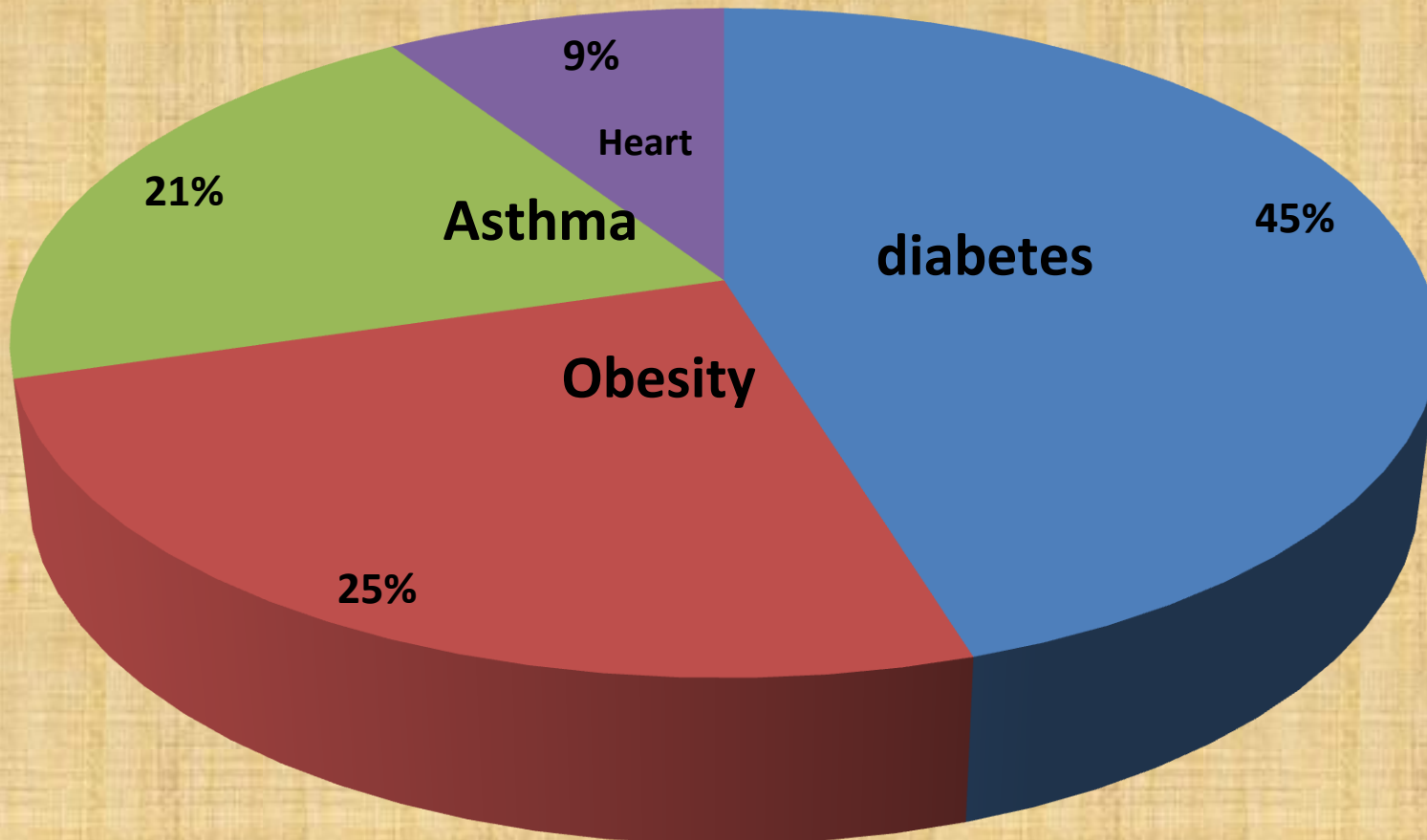
COMMUNITY_BOUND USAGE

- COMMERCIAL
- EDUCATION
- FARMS
- GOVERNMENT
- INDUSTRIAL
- MASAJED
- OTHERS
- RESIDENCES

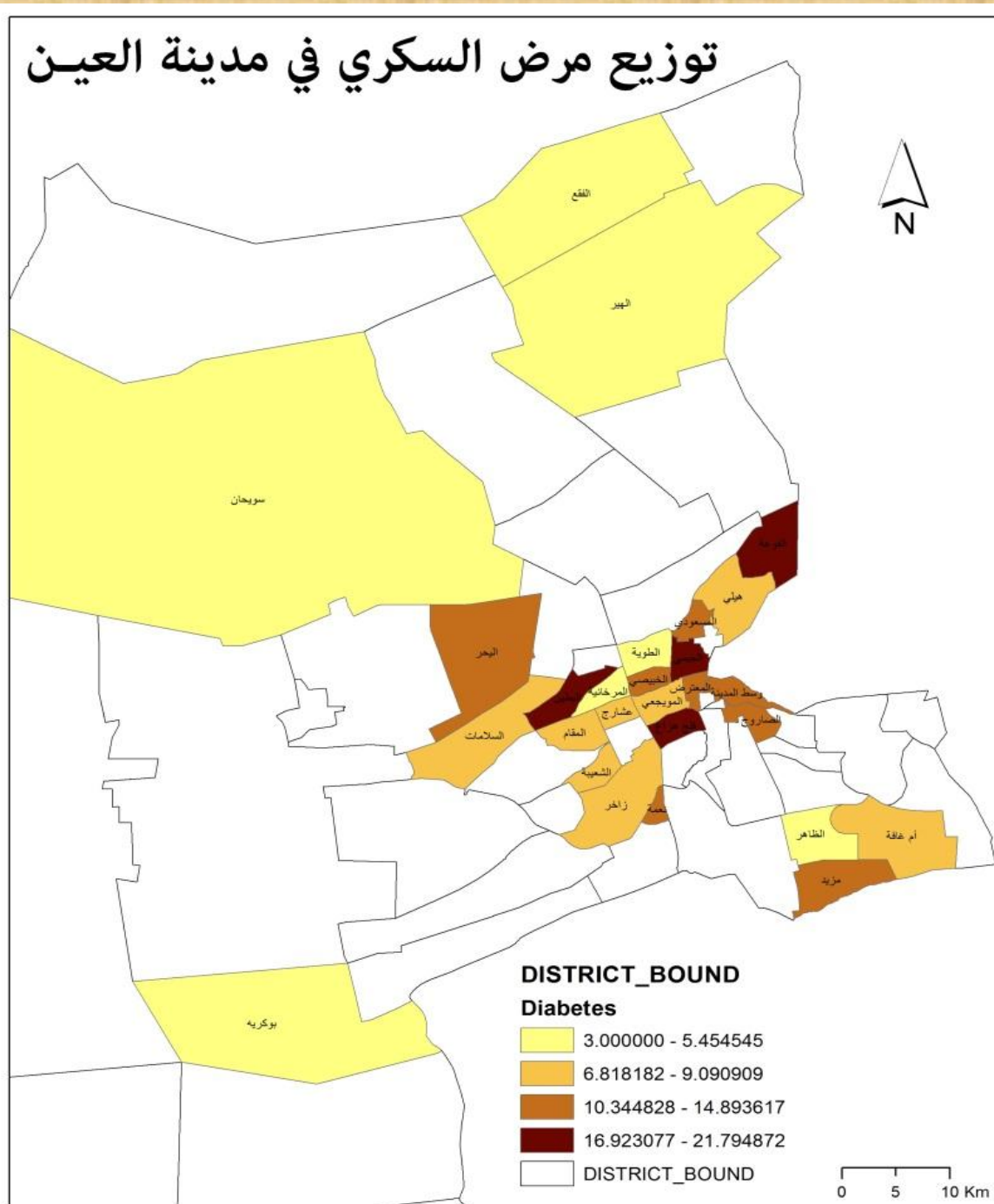
0 10 20 40 Kilometers

Results:

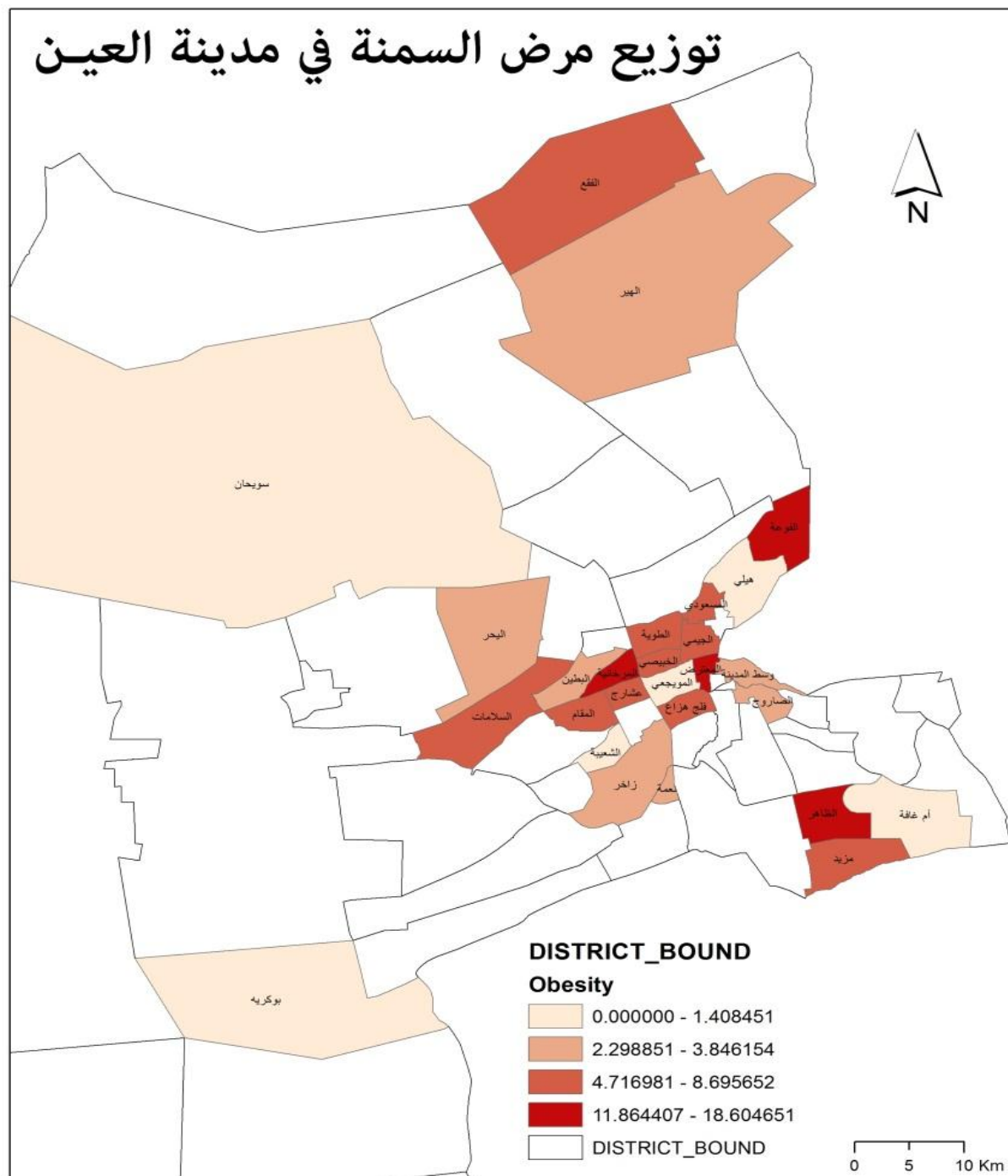
A- The Proportion of Non- infectious diseases



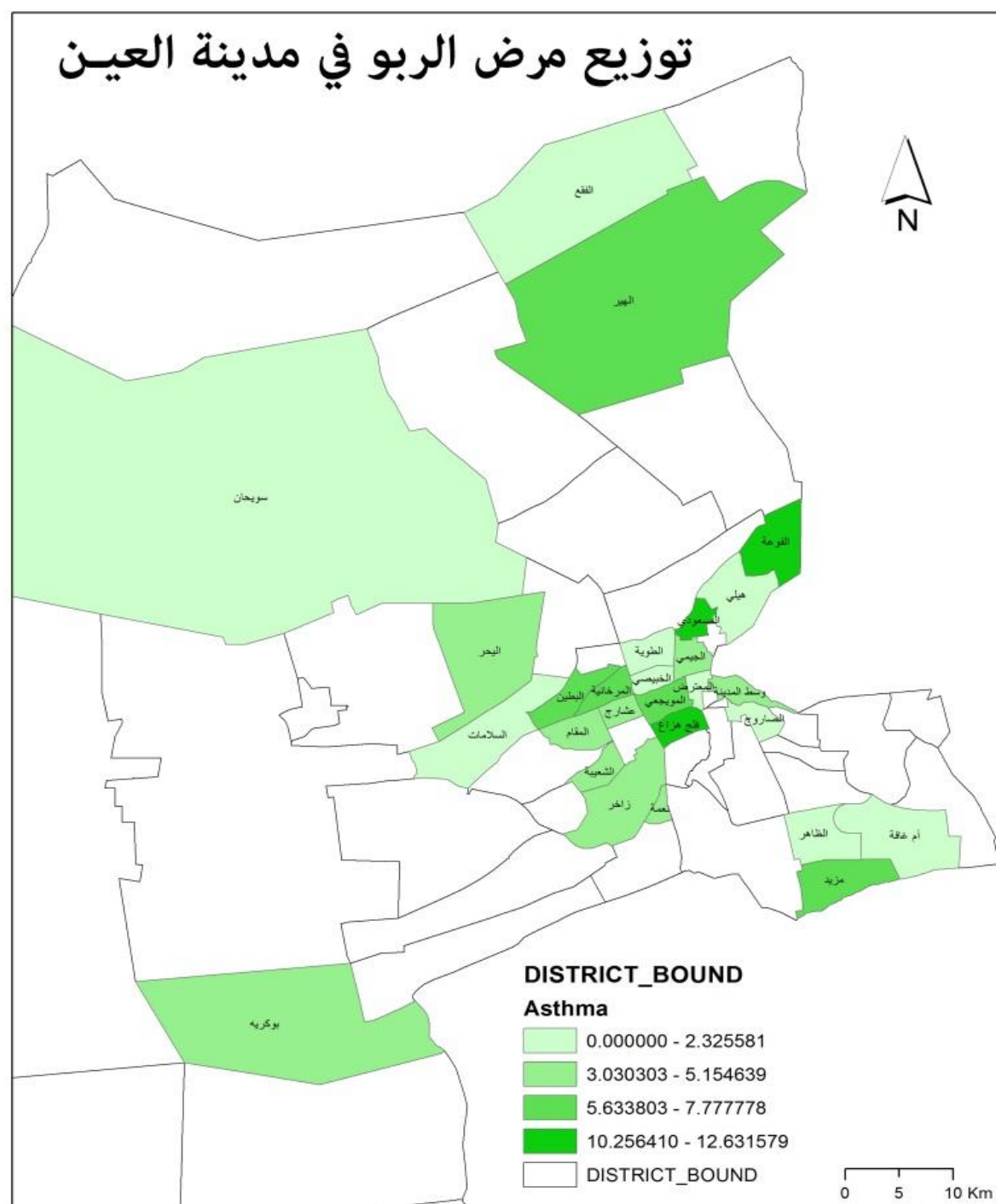
Diabetes distribution in Al Ain



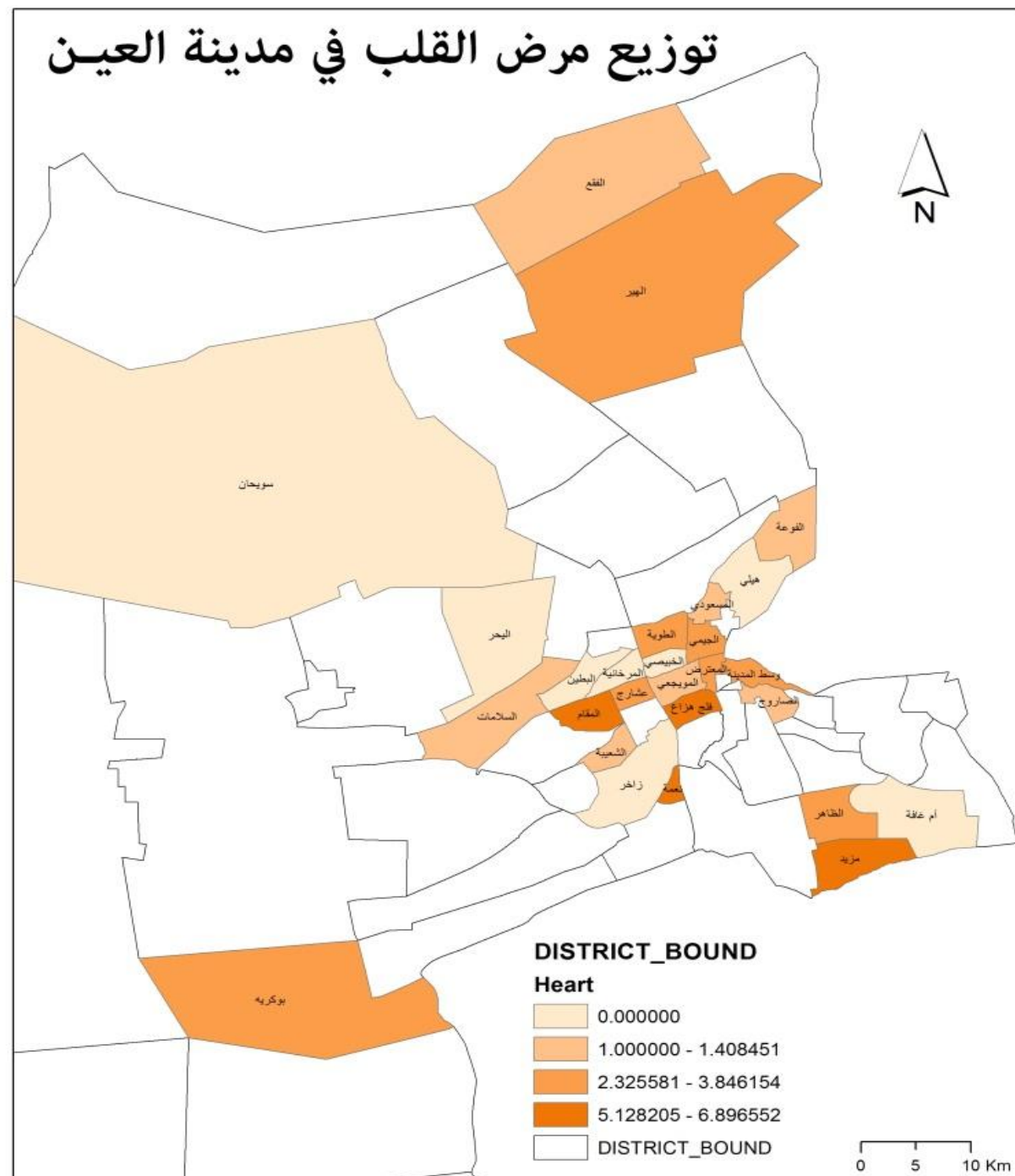
Obesity distribution in Al Ain



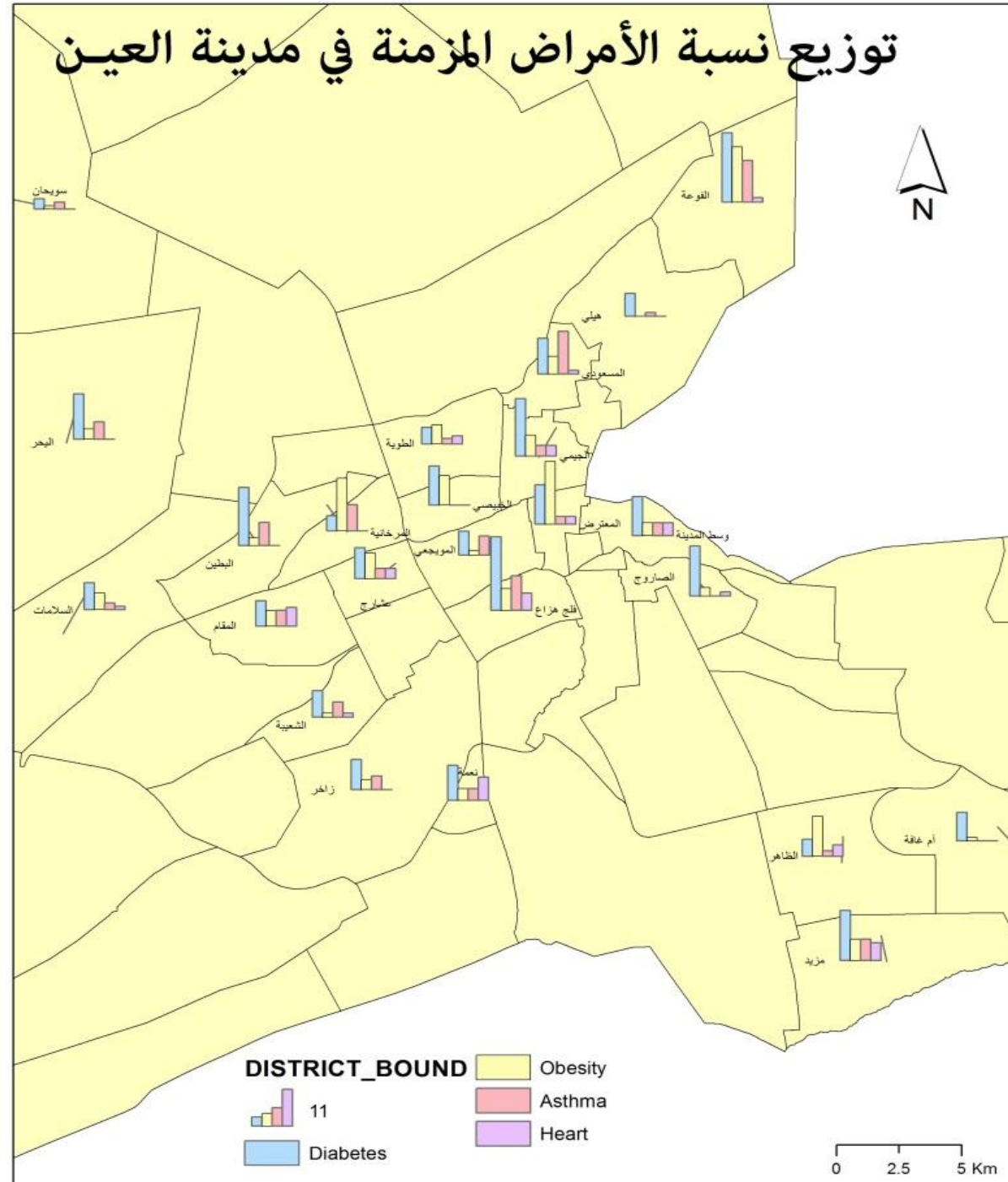
Asthma distribution in Al Ain



Heart distribution in Al Ain

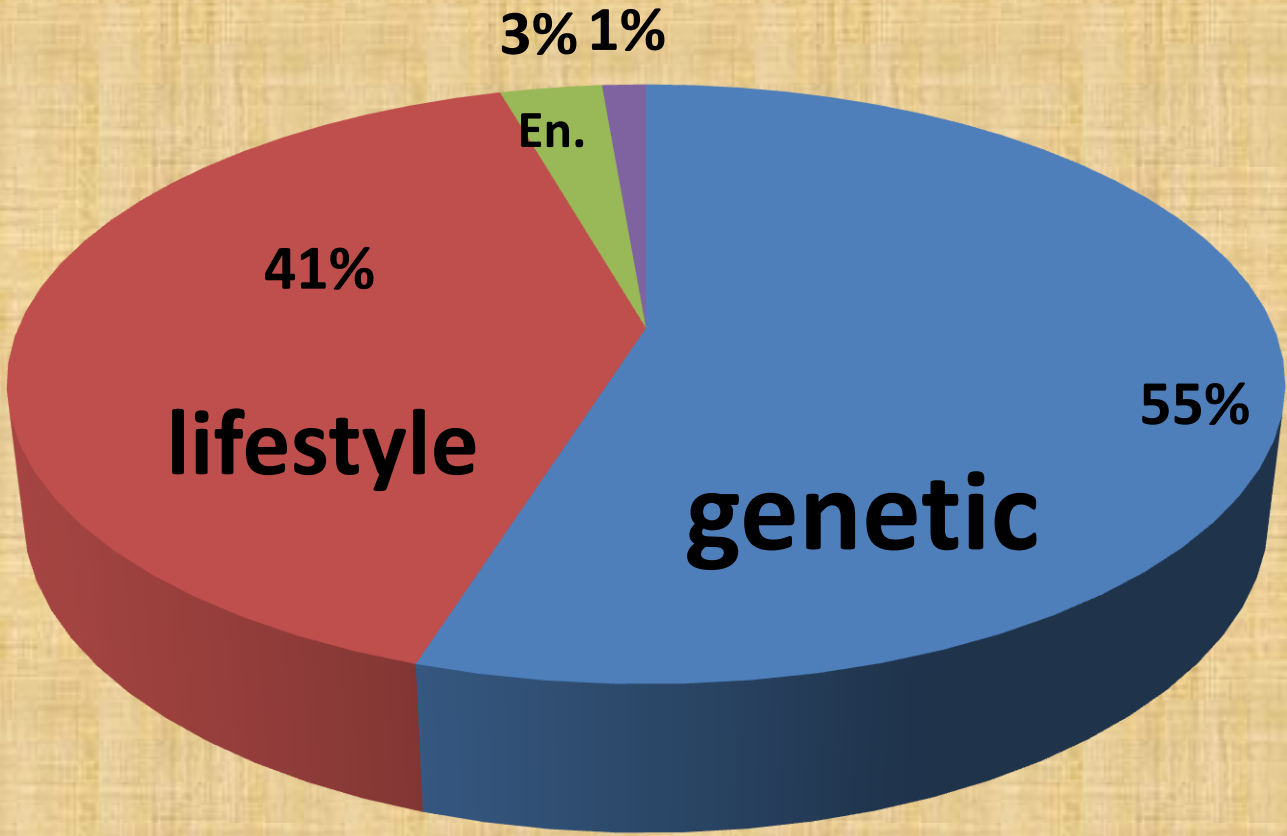


توزيع نسبة الأمراض المزمنة في مدينة العين

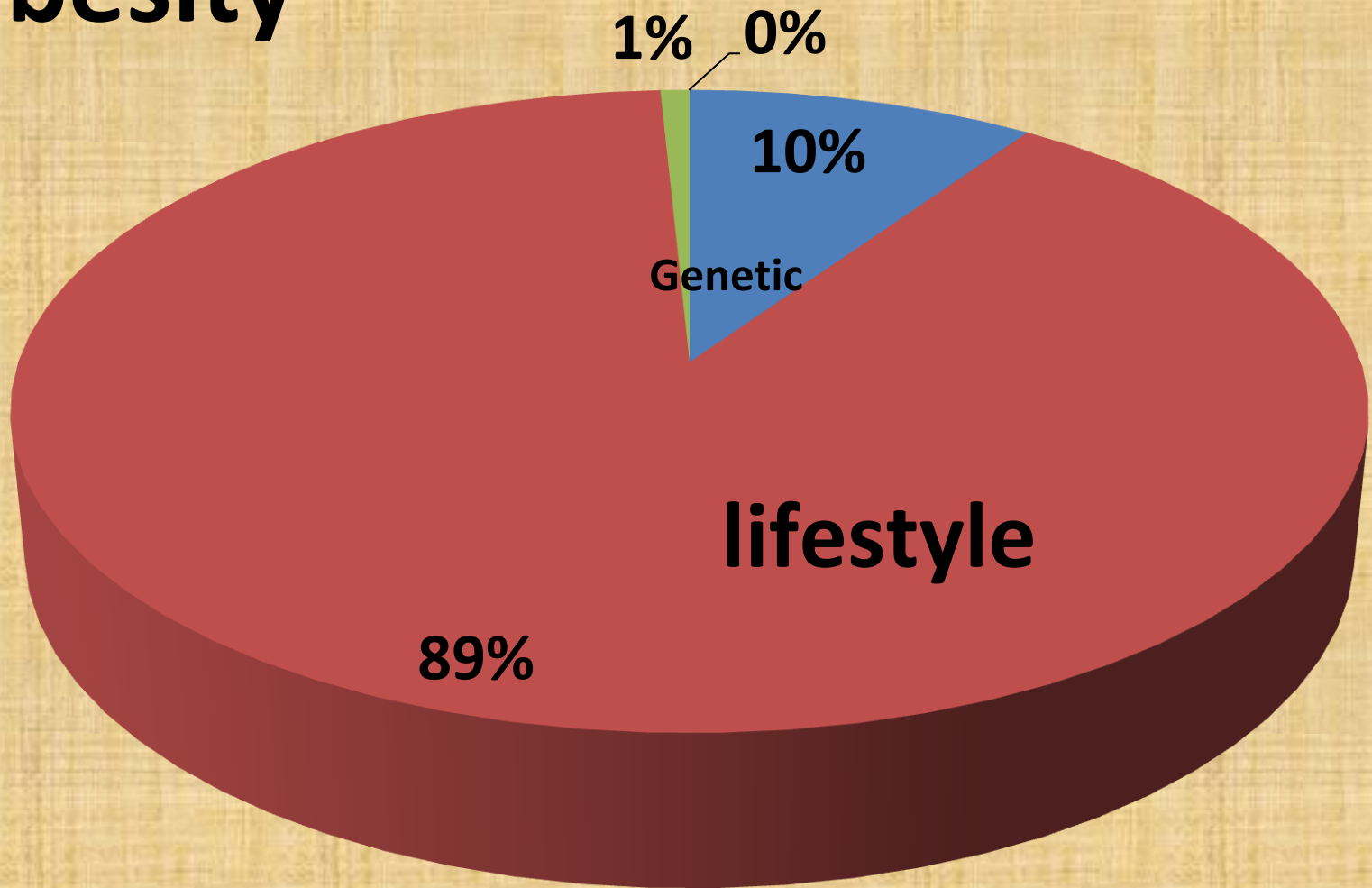


B) The results of the causes of non-infectious disease:

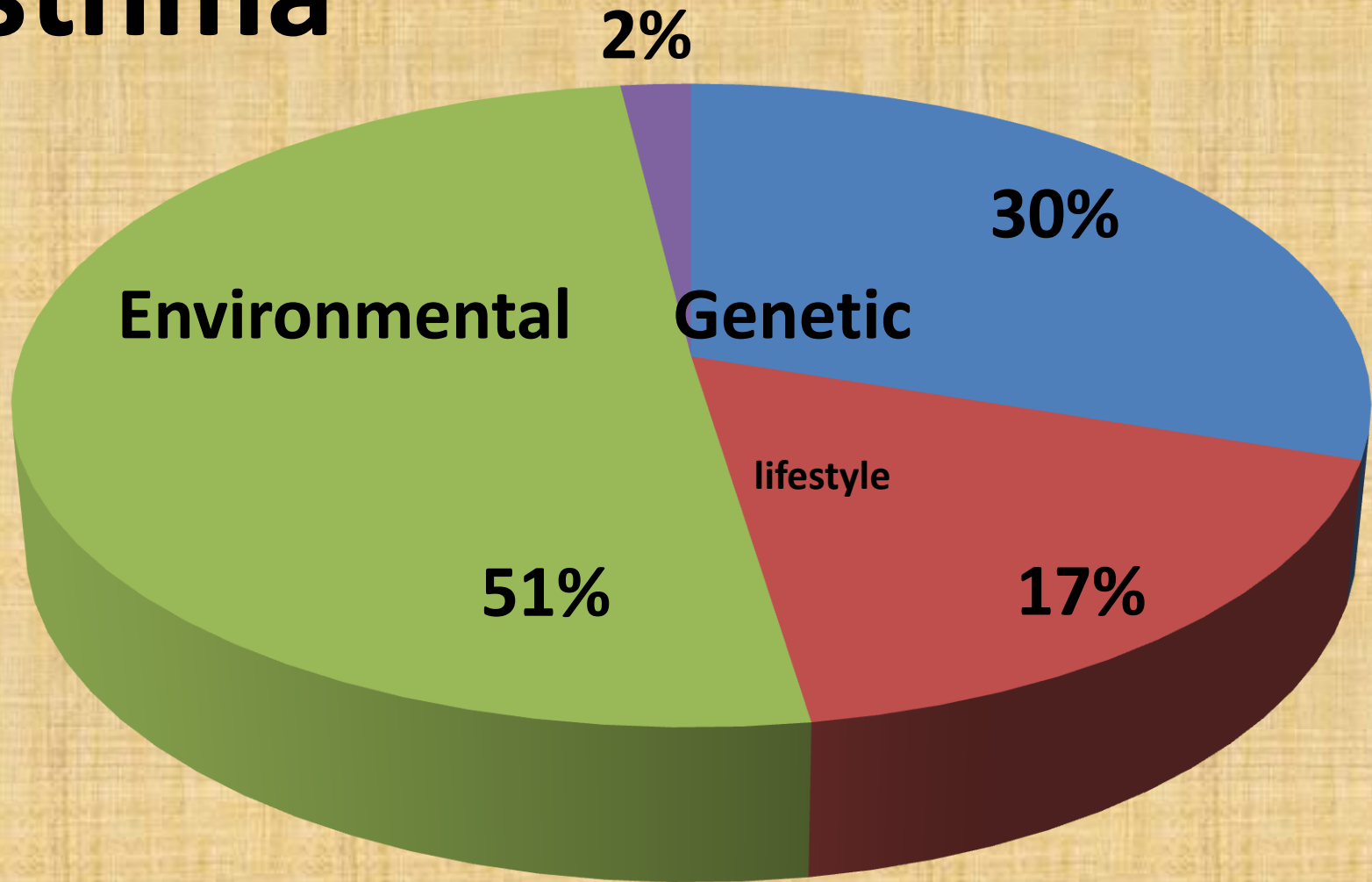
Diabetes



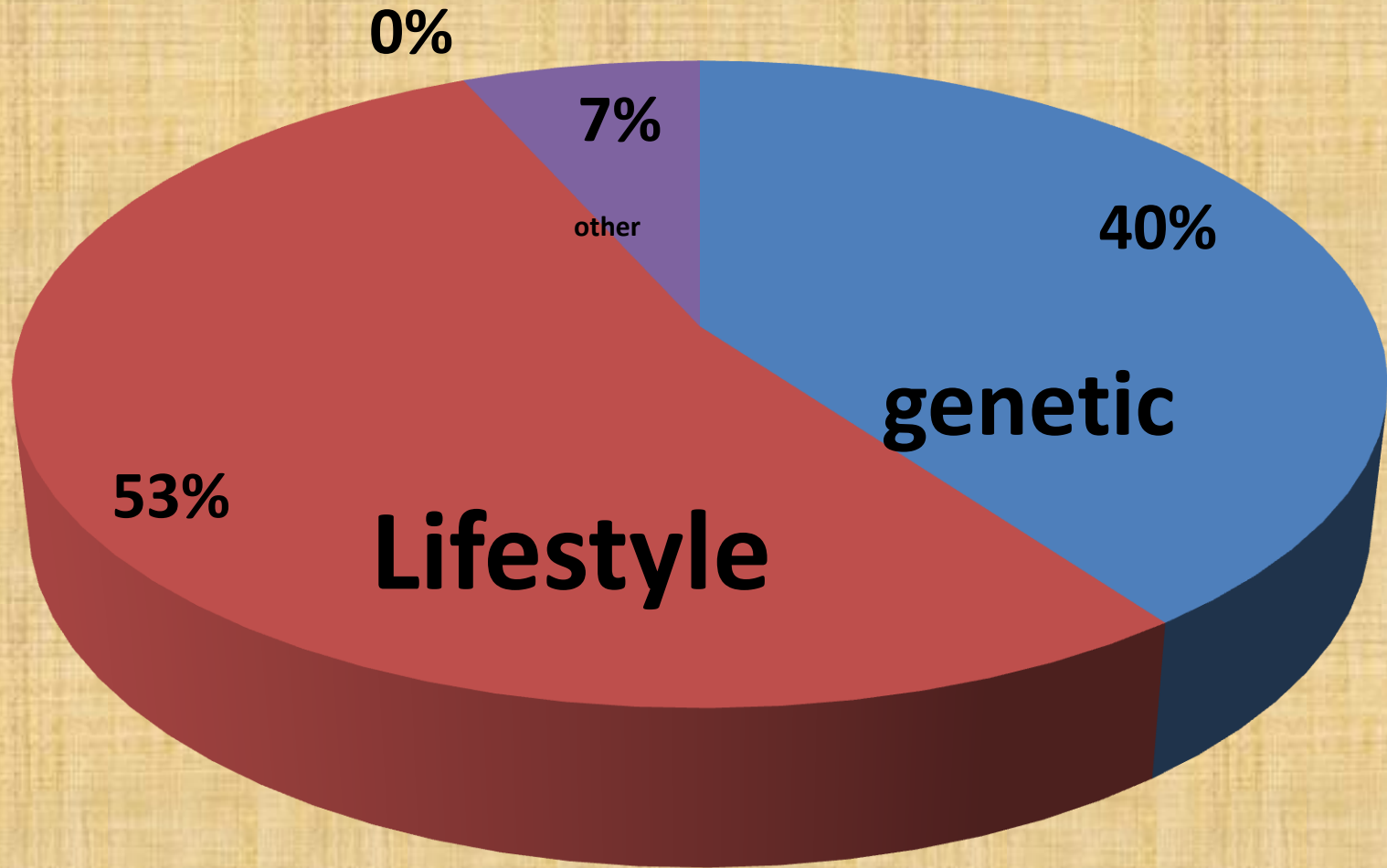
Obesity



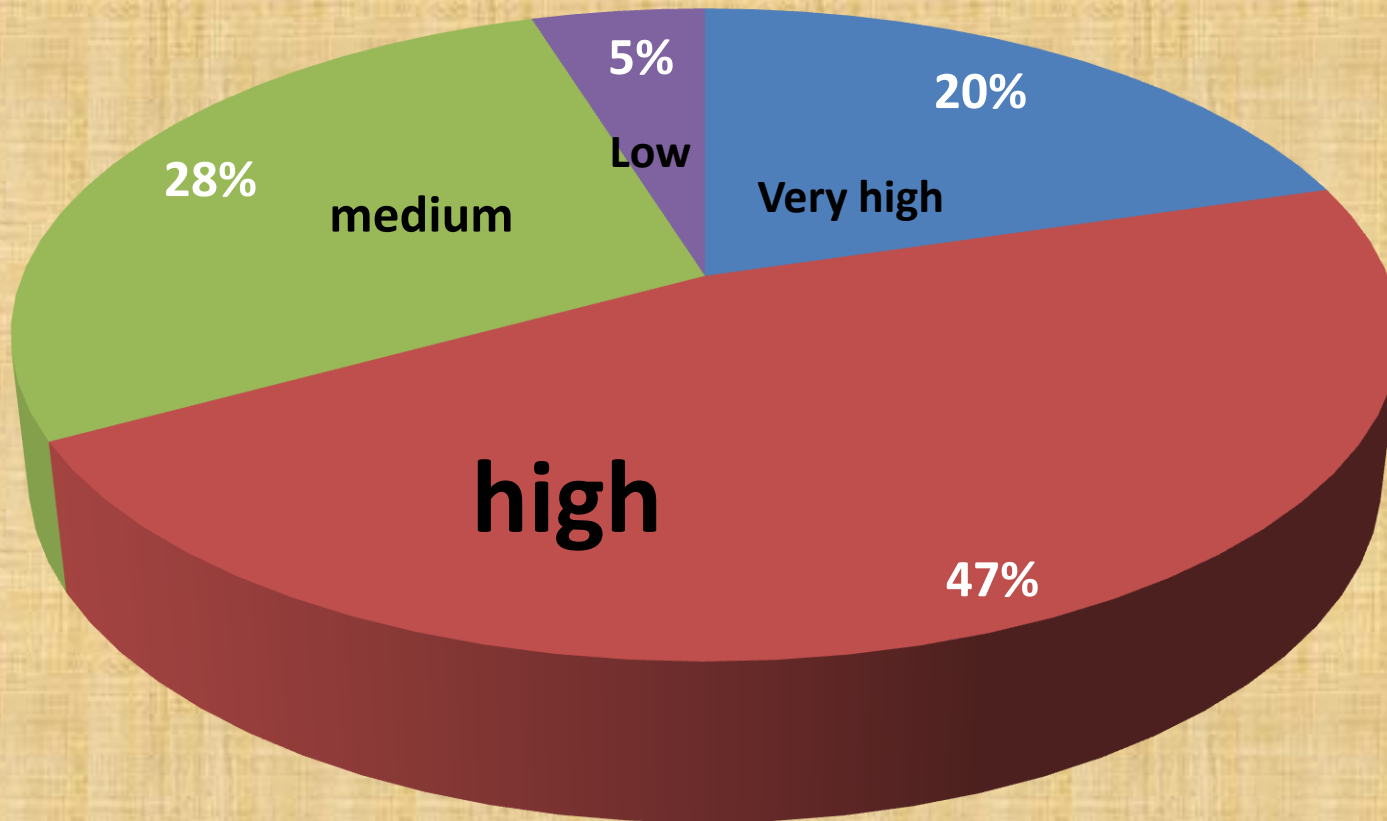
Asthma



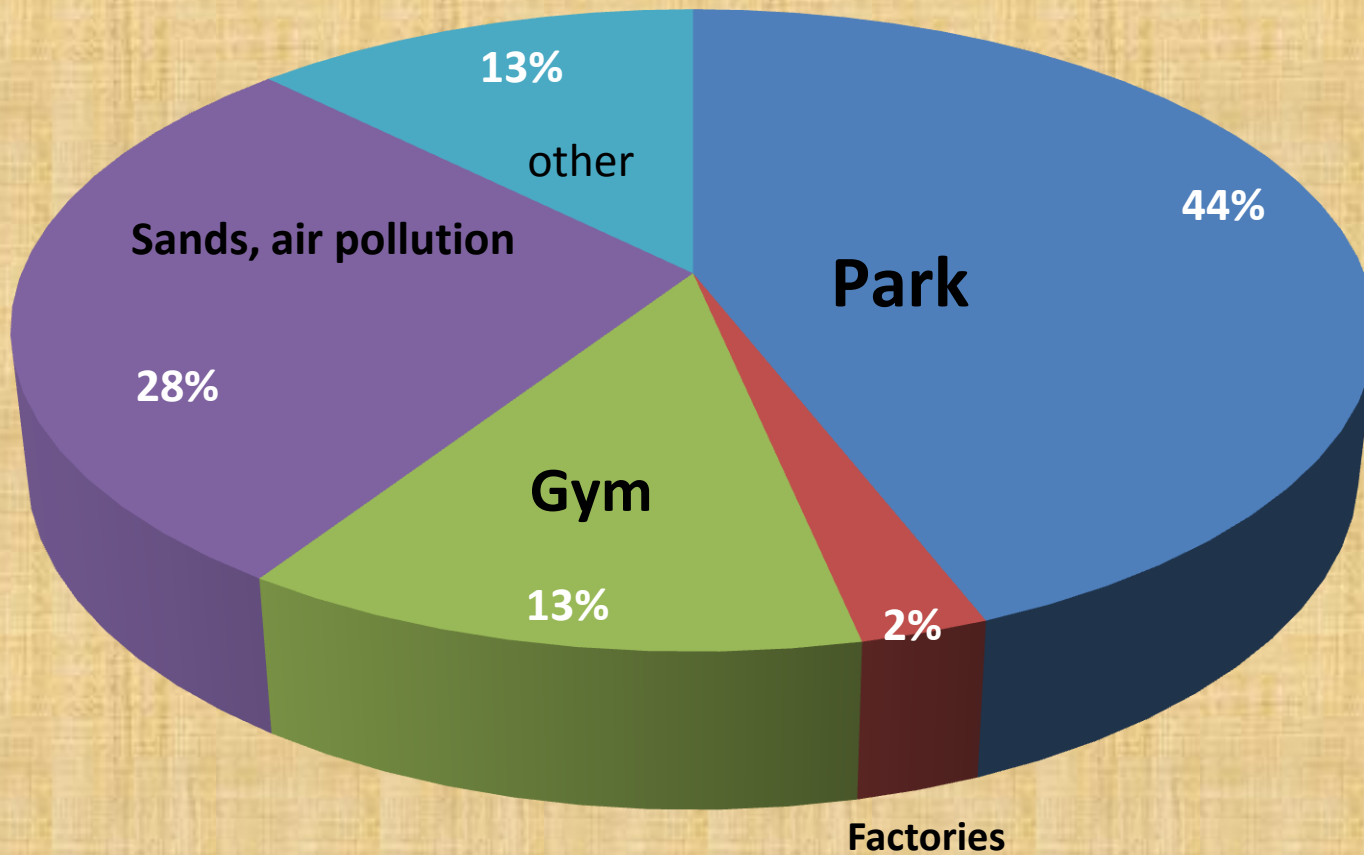
Heart



C- The results of the level of environmental awareness among the population of Al Ain



D) The results of the surrounding services (Land use, and land cover):



Conclusions and recommendations

The researchers reached the following conclusions

- 1- Having different proportion of non-infectious diseases in AL AIN city.
- 2- The highest rate of the non-infectious diseases among the respondents is the diabetes, and the lowest one is the heart disease.
- 3- Genetic factors are considered to be of the top causes of the non-infectious diseases.
- 4- The level of environmental awareness at the sample is high.
- 5- There are more than a non-infectious diseases for the same person.

Recommendations:

The researchers recommend the following:

- 1. Establish courses and educational campaigns for individuals against the risk factors of non-infectious diseases.**
- 2. Holding periodic medical examinations to identify the individual's health status accurately .**
- 3. Improve the nutritional status by a healthy diet healthy behavior .**
- 4. Encouragement on the importance of exercises.**
- 5. Planning for the correct services surrounding accommodation for individuals that have a role in raising the level of health of individuals .**
- 6. Provide a lot of appropriate environments for sports activities sports as the opened and closed parks.**

Thank you for listening
Questions?