



National Survey on Self-reported Health in Sri Lanka 2014



Department of Census and Statistics
Ministry of National Policies and Economic Affairs

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Preface

Health statistics are important for planning policies, programmes and monitoring the impact of health related policies and programmes. Finding data sources and effectively using statistics are of vital importance as national and provincial level health authorities are called upon to respond quickly to ever more pressing data needs. To cater the demand in health statistics on chronic illnesses, acute illnesses and some other health related issues at household level, a health module was attached to the Sri Lanka Labour Force Survey in 2014. The requests made by the health specialists were also considered in introducing this module. This is probably the first island-wide survey of self-reported health status in Sri Lanka.

This report is prepared using survey data which includes self-reported information from respondents on their health conditions. Therefore users should be aware that the statistics provided in this report have been compiled based on self-reported information. Field work of the survey was carried out from January to December 2014 in all districts. This report is based on an annual sample of 25,000 housing units. This is the first ever report published by the Department of Census and Statistics on health statistics using results of a household survey – covering chronic illness, acute illness and some other health related issues at household level.

We appreciate the support received from various individuals and institutions that we have mentioned under the acknowledgement and a special appreciation is extended to Professor Saroj Jayasinghe, professor in the Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Sri Lanka and his team of health specialists. This report provides only descriptive analysis and further analysis and medical interpretations for the findings may be required to make more effective policy decisions. Also we hope this attempt could lead to a regular national level household survey on health status in Sri Lanka.

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Director General,

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2016.04.29

Acknowledgement

This “National Survey on Self-reported Health in Sri Lanka 2014” with district level data is based on the total annual sample of 25,000 housing units, covering all districts of the country.

Planning and execution of the 2014 survey was done by staff of the Sample Survey Division under the direction of Mr. H.R.Dias, Director and the Statisticians & Senior Statistician of the sample surveys division. Mr. P.A. Subawickrama, statistician immensely contributed at the planning of the survey. Contribution from the former Director General Mr. D.C.A.Gunawardena is also very much appreciated.

The Statistical Officers, Statistical Assistants, Information and Communication Technology Assistants, Data Entry Operators/Coding Clerks and Development Officers of the Sample Survey division are acknowledged for their valuable contributions during the whole survey process.

This publication was organized and prepared by Mrs. W.A.C. Wijebandara, Statistician, assisted by Mrs. A.N. Ekanayake, Statistical Assistant. The computer data processing and final tabulations of the report were done by Mrs. W.A.S.M.P. Gunasekara, Statistical Officer and Mrs. A.N. Ekanayake, Statistical Assistant and Mr. H.L.R. Perera, Statistical Officer prepared the maps of the report.

Support of the Information & Communication Technology Division of the Department is appreciated for the survey data entry and preparation of data entry and computer editing programmes.

District staff of the Department deserves a special word of thanks for their contributions. District staff include District Deputy Directors/ Senior Statisticians/ Statisticians as supervisors and Statistical Officers & Statistical Assistants for data collection and Information and Communication Technology Assistants, Data Entry Operators/Coding Clerks and Development Officers for data entry and coding.

Special note of appreciation is extended to the expertise delivered by Prof. Saroj Jayasinghe, professor in the Department of Clinical Medicine, Faculty of Medicine, University of Colombo, Sri Lanka and his team of health specialists including Dr. Dulani Samarnayake. Their support received from the planning of the survey till the dissemination of data is highly acknowledged.

Mrs. W.A.C. Wijebandara statistician of the department was instrumented in planning, organizing, data analysis and writing the report of this special study which was conducted parallel to the Sri Lanka Labour Force Survey in 2014.

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1. Introduction

1.1 General Back ground

A survey module was attached to Sri Lanka Labour Force Survey (LFS) 2014 to collect data on health conditions of people in the country. This health survey was conducted at household level and self-reported (without medical tests or clinical proofs) health associated data was collected from all individuals of the selected households. The statistics estimated through the survey will be immensely useful for the government, policy makers to plan health services, especially for resource allocation, for preventive actions and to provide clinical care. The survey covers all districts of the country therefore statistics will be published at district level. Since all the data collected in the health module are self-reported, the facts are based on the level of awareness of the respondent. Further this is the first ever island-wide household survey on health and this was conducted during 12 months period in 2014.

1.2 Coverage of the survey

The survey collects data from an annual sample of 25,000 housing units, also it provides national, provincial and district level estimates on chronic/acute illnesses. It covers persons living in housing units and excludes the institutional population.

a. Subjects covered at the survey:

- Prevalence by type of illness – chronic/ acute
- Place from which the treatment was received for chronic/ acute illness
- Accidents occurred
- Number of times received treatment for accidents
- Place where the accident occurred
- Health screening
- Smoking and alcohol use
- Availability of health insurance

b. Illnesses covered at the survey:

Following chronic and acute illnesses were covered at the survey.

| Chronic illness | Acute illness |
|---------------------|---------------|
| Diabetes | Diarrhoea |
| High Blood Pressure | Vomiting |
| Heart Diseases | Fever |
| Stroke/ Paralyzed | Cough |
| Cancer | Headache |
| Asthma | Stomachache |
| Mental illness | Wheezing |
| Arthritis | Sore throat |
| Epilepsy | Joint aches |
| Other | Skin diseases |

1.3 Field Work

The field work of the survey for the year 2014 was conducted from January to December. The census blocks prepared at 2012 population census were used as primary sampling units. A listing operation for primary sampling unit update was conducted, before the selection of secondary sampling units.

The field staff of the DCS involved in survey data collection activities. These officers were trained before they were entrusted with the survey operations. A Deputy Director/Senior Statistician/Statistician attached to each district secretariat were responsible for coordination and supervision activities. Sample surveys division of the Department was responsible for implementation of the survey.

2. Survey Methodology & Estimation Procedure

2.1 Sampling plan and the sampling frame

Two stage stratified sampling procedure is adopted to select a sample of 25,000 housing units to be enumerated at the survey. The master sampling frame prepared for 2011 – Census of Population and Housing is used as the sampling frame for the sample selection of LFS in 2014.

2.2 Sample size

Annual sample of 25,000 housing units were selected to give reliable estimates by district level in the year 2014.

2.3 Sample Allocation

In 2014, 2500 Primary sampling Units (PSU's) were allocated to each district and to each sector (Urban, Rural and Estate) by using the Neymann allocation method which considers the variance of unemployment rate as usually (because the sampling of the health survey is the same as LFS) The allocated sample for each district then equally distributed for 12 months. Table 2.1 gives the sample distributions by district for year 2014.

2.4 Selection of Primary Sampling Units (PSU)

Primary sampling units were the census blocks demarcated at the Census of Population and Housing - 2011.

2.5 Selection of Secondary Sampling Units (SSU)

Secondary Sampling Units were the housing units in the selected 2500 primary sampling units (census blocks). From each selected primary sampling unit, 10 housing units (SSU) were selected for the survey using systematic random sampling method.

Table 2.1: The distribution of sample by district

| District | No. of Housing Units | District | No. of Housing Units |
|--------------|----------------------|--------------|----------------------|
| Total | 25,000 | Mullaitivu | 360 |
| Colombo | 2,270 | Kilinochchi | 360 |
| Gampaha | 2,590 | Batticaloa | 860 |
| Kalutara | 1,250 | Ampara | 1,010 |
| Kandy | 2,150 | Trincomalee | 500 |
| Matale | 570 | Kurunegala | 2,100 |
| Nuwara Eliya | 590 | Puttalam | 680 |
| Galle | 1,300 | Anuradhapura | 670 |
| Matara | 1,200 | Polonnaruwa | 530 |
| Hambantota | 1,000 | Badulla | 890 |
| Jaffna | 600 | Moneragala | 460 |
| Mannar | 360 | Ratnapura | 1,180 |
| Vavunia | 360 | Kegalle | 1,160 |

3. Distribution of chronic illnesses in Sri Lanka

3.1 Distribution of cases reported on chronic illnesses

Self-reported information on having any chronic illness was collected from all individuals in the sample. The results reveal that 17.8 percent of the total population has some kind of chronic illness.

The Table 3.1 depicts the self-reported illnesses by type of illness as a percentage to the total cases reported. One person may have reported multiple illnesses with a maximum of three chronic illnesses per person.

Table 3.1: Distribution of chronic illnesses (as a percentage to the total cases reported)

| Type of illnesses | Percentage to the total cases reported |
|---------------------|--|
| High Blood Pressure | 39.0 |
| Diabetes | 30.4 |
| Asthma | 13.8 |
| Arthritis | 11.4 |
| Heart Disease | 9.0 |
| Mental illness | 3.1 |
| Stroke/ Paralyzed | 2.1 |
| Cancer | 1.7 |
| Epilepsy | 1.7 |
| Other | 15.8 |

Highest number of cases reported is on High Blood Pressure (39.0%) and Diabetes cases are the second highest (30.4%). About 15.8 percent of cases indicate other types of chronic illnesses which had not been mentioned in the survey questionnaire.

3.2 Distribution of persons having any chronic illness in total population

It is important to explore the distribution of population having any chronic illness by age, gender and level of education of the population. This will show us the spreading and where more illnesses are concentrated.

Table 3.2: Percentage distribution of persons having any chronic illness by age and gender

| Age group(years) | Gender | | |
|------------------|--------|--------|-------|
| | Male | Female | Total |
| Less than 14 | 5.2 | 3.1 | 4.0 |
| 15 - 24 | 2.8 | 2.5 | 2.6 |
| 25 - 59 | 47.1 | 48.8 | 48.1 |
| 60 and above | 44.9 | 45.6 | 45.3 |
| Total | 100.0 | 100.0 | 100.0 |

According to Table 3.2, among the persons having any chronic illness many are reported from the age groups 25 – 59 years (48.1%) and age 60 and above (45.3%). The distribution pattern is almost similar for both male and female. The higher rate of chronic illness in older groups is an expected result, because diseases such as Diabetes and High Blood Pressure occur more frequently among older persons.

Education has important social impacts on health conditions of the people. Some studies show that the level of education is strongly linked with health and the determinants of health conditions of people such as health behaviors, risky contexts and preventative service use¹.

The percentage distribution of persons having any chronic illness by level of education show that many reported cases are from lower levels of education (Table 3.3). This is true for both male and female. About 77 percent of cases reported from the group that have less than G.C.E (O/L) qualification. However, the prevalence of these illnesses by level of education will be discussed in next section of this report.

¹(Leon Feinstein, 2006)

Table 3.3: Percentage distribution of persons having any chronic illness by level of education and gender

| Level of education | Gender | | Total |
|-----------------------|--------------|--------------|--------------|
| | Male | Female | |
| Less than Grade 5 | 31.5 | 36.2 | 34.2 |
| Grade 6 - 11 | 42.8 | 42.5 | 42.6 |
| G C E (O/L) | 14.2 | 12.7 | 13.4 |
| G C E (A/L) and above | 11.6 | 8.6 | 9.9 |
| Total | 100.0 | 100.0 | 100.0 |

The Table 3.4 gives the percentage distribution of the persons having any chronic illness who are aged 20 and above by level of education and age groups. The results show high concentration of persons with chronic illnesses in 50 and above age groups.

Table 3.4: Percentage distribution of persons (Age 20 and above) having any chronic illness by age and level of education

| Age group(years) | Level of education | | | | Total |
|------------------|--------------------|--------------|--------------|-----------------------|--------------|
| | < Grade 5 | Grade 6 - 11 | G C E (O/L) | G C E (A/L) and above | |
| 20 - 29 | 1.8 | 3.7 | 3.0 | 4.3 | 3.1 |
| 30 - 39 | 3.9 | 9.4 | 7.7 | 8.5 | 7.3 |
| 40 - 49 | 11.2 | 17.5 | 15.9 | 19.4 | 15.4 |
| 50 - 59 | 23.3 | 27.4 | 27.6 | 30.3 | 26.4 |
| 60 - 69 | 27.4 | 26.0 | 28.5 | 23.8 | 26.6 |
| 70 and above | 32.3 | 15.9 | 17.4 | 13.7 | 21.2 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

4. Prevalence of chronic illnesses

4.1 Prevalence of any chronic illness to the total population by District

Prevalence² of any chronic illness is calculated by using the self-reported cases of one or more chronic illness per person. To get the prevalence rate, total number of cases reported for any chronic illness was divided by the corresponding population. For an example District level prevalence was calculated using the cases reported by district level and population of each district.

Table 4.1: Prevalence of having any chronic illness by district and age group

| District | Prevalence of having any chronic illness (%) | | | | |
|--------------|--|----------|----------|------------|------------------|
| | Age Group (Years) | | | | Total population |
| | Less than 15 | 15 to 24 | 25 to 59 | 60 & above | |
| Colombo | 3.3 | 2.4 | 20.7 | 63.4 | 21.3 |
| Gampaha | 2.8 | 2.9 | 18.0 | 54.4 | 18.0 |
| Kalutara | 2.2 | 2.6 | 20.4 | 58.2 | 20.0 |
| Kandy | 2.9 | 1.5 | 18.9 | 56.8 | 18.3 |
| Matale | 2.5 | 6.1 | 19.8 | 55.6 | 17.9 |
| Nuwara Eliya | 2.8 | 3.4 | 14.5 | 51.7 | 15.6 |
| Galle | 2.5 | 2.9 | 15.0 | 46.9 | 15.2 |
| Matara | 2.0 | 3.5 | 15.3 | 49.9 | 16.0 |
| Hambantota | 4.9 | 5.7 | 20.1 | 59.1 | 20.1 |
| Jaffna | 3.6 | 3.3 | 22.5 | 56.2 | 21.2 |
| Mannar | 5.2 | 7.0 | 22.1 | 53.8 | 17.8 |
| Vavunia | 4.8 | 3.6 | 25.2 | 61.4 | 18.3 |
| Mullativu | 4.7 | 5.5 | 20.3 | 57.0 | 15.5 |
| Kilinochchi | 2.3 | 3.8 | 21.3 | 55.8 | 15.6 |
| Batticaloa | 5.1 | 4.3 | 26.7 | 64.4 | 19.0 |
| Ampara | 2.8 | 5.9 | 21.6 | 52.6 | 16.1 |
| Trincomalee | 2.1 | 4.8 | 20.1 | 52.5 | 14.5 |
| Kurunegala | 1.5 | 4.1 | 16.8 | 52.8 | 16.8 |
| Puttalam | 3.1 | 2.7 | 20.8 | 57.9 | 17.5 |
| Anuradhapura | 2.9 | 4.6 | 18.6 | 58.3 | 16.3 |
| Polonnaruwa | 2.5 | 4.3 | 23.1 | 61.6 | 20.4 |
| Badulla | 3.5 | 3.8 | 15.7 | 44.8 | 15.6 |
| Moneragala | 3.9 | 3.7 | 16.3 | 52.4 | 15.4 |
| Ratnapura | 1.9 | 3.2 | 14.0 | 51.2 | 15.3 |
| Kegalle | 2.2 | 1.2 | 16.9 | 53.0 | 17.9 |
| Sri Lanka | 2.8 | 3.3 | 18.5 | 55.2 | 17.8 |

²Prevalence: The proportion of individuals in a population having a disease or characteristic. Prevalence is a statistical concept referring to the number of cases of a disease that are present in a particular population at a given time, whereas incidence refers to the number of new cases that develop in a given period of time.

When the age groups are considered the cases reported in the age group and the corresponding population was considered. As given in the Table 4.1 the prevalence rate to the total population for the country is 17.8 percent. The distribution of prevalence rate by district shows that the highest prevalence rate is reported from Colombo district while the lowest rate is reported from Trincomalee district. The Figure 4.1 shows this distribution graphically.

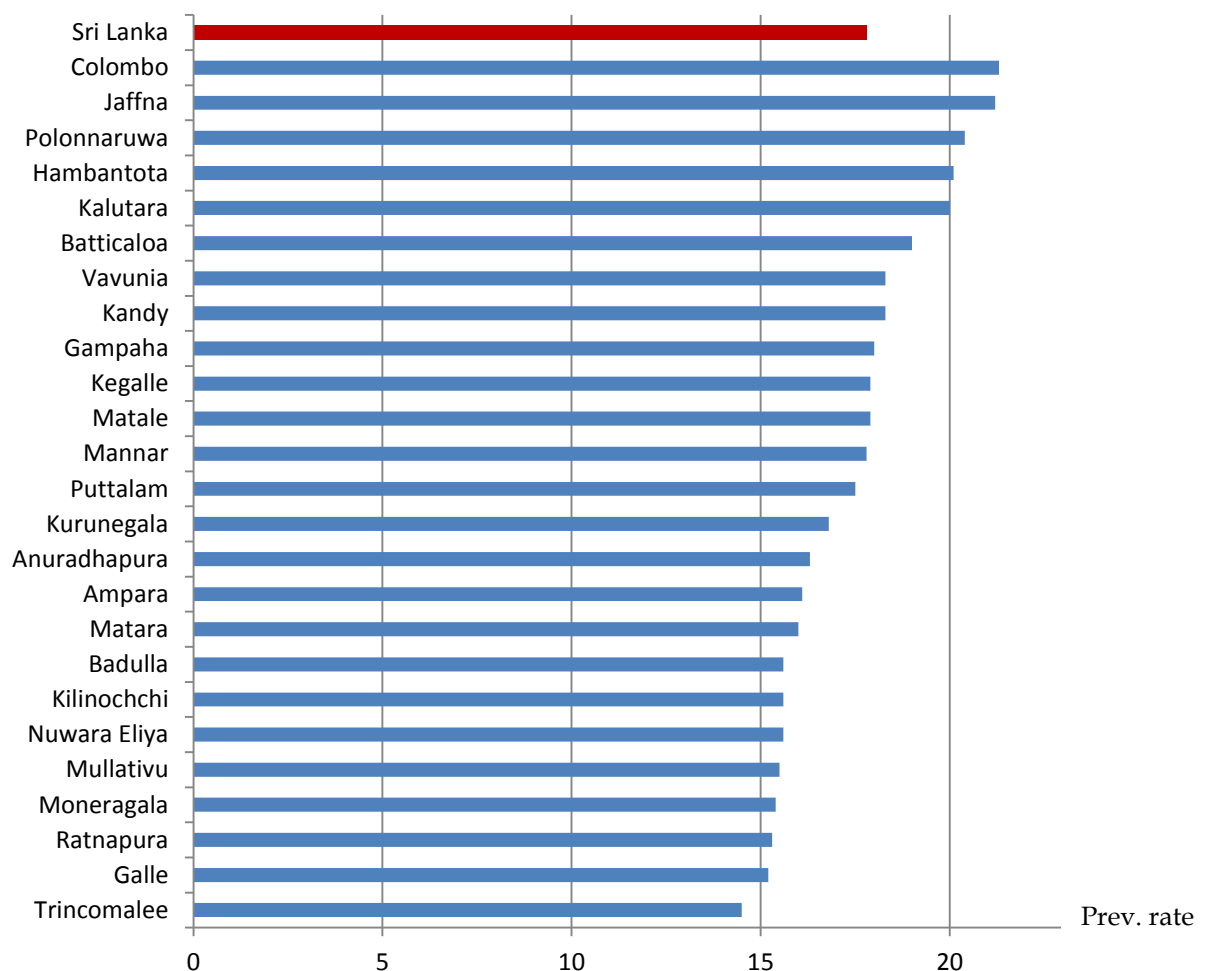


Figure 4.1: Prevalence of any chronic illness by district

Table 4.1 further shows the prevalence of having any chronic illness within different age groups by district for Sri Lanka. It is clear that the prevalence rate is increasing with age. Higher the age higher is the reported prevalence.

The highest prevalence 55.2 is reported from the age group age 60 and above. Also the survey results reveal a prevalence of 2.8 for the age group less than 15 years. The Figure 4.2 below shows prevalence calculated for populations with two different lower age boundaries and to the total population. When the age 20 years and above population is considered, one out of every four reported having some chronic illness. Actual prevalence might be higher since these are self-reported information. Also among the age 60 years and above population about one out of every two is reported having some chronic illness. The results of the survey further reveal that due consideration need to be paid on aging population when health policies are drawn.

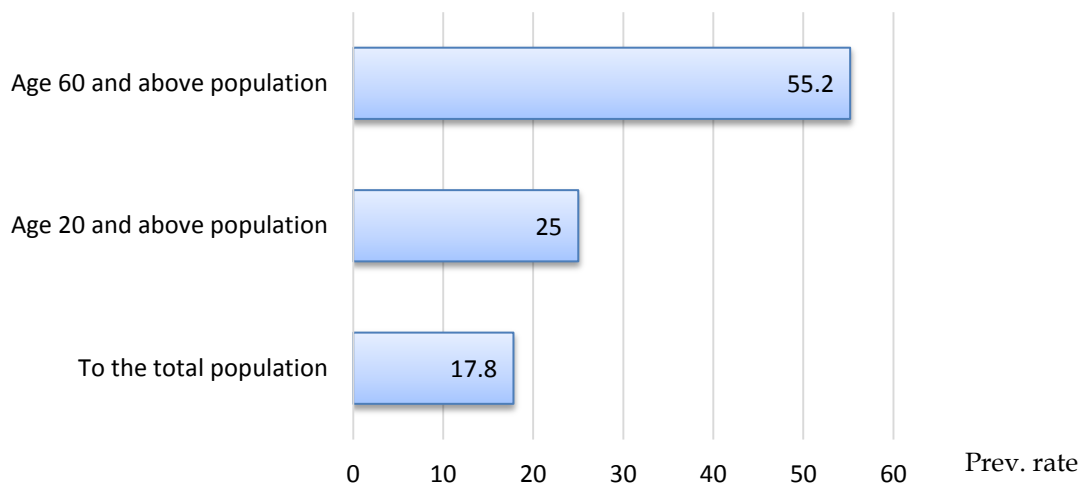


Figure 4.2: Prevalence of any chronic illness for populations in different age groups

4.2 Prevalence of any chronic illness by age, gender and type of illness

The following Table 4.2 provides the prevalence rates calculated for chronic illnesses separately and for each gender for the total population and for the age 15 and above population. The results reveal that prevalence of High Blood Pressure (HBP) and Diabetes, Asthma and Arthritis are much higher compared to other illnesses.

Table 4.2 Prevalence of any chronic illness by age, gender and type of illness

| Illness | Prevalence in the total population | | | Prevalence in the population age 15 years and above | | |
|---------------------|------------------------------------|--------|-------|---|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| Diabetes | 4.9 | 5.9 | 5.4 | 6.7 | 7.7 | 7.2 |
| High Blood Pressure | 5.3 | 8.4 | 6.9 | 7.3 | 11.0 | 9.2 |
| Heart Diseases | 1.7 | 1.5 | 1.6 | 2.3 | 1.9 | 2.1 |
| Stroke/Paralyzed | 0.4 | 0.3 | 0.4 | 0.6 | 0.4 | 0.5 |
| Asthma | 2.4 | 2.5 | 2.5 | 2.7 | 2.9 | 2.8 |
| Arthritis | 1.3 | 2.7 | 2.0 | 1.7 | 3.5 | 2.7 |
| Mental illness | 0.6 | 0.5 | 0.6 | 0.7 | 0.7 | 0.7 |
| Epilepsy | 0.4 | 0.2 | 0.3 | 0.4 | 0.3 | 0.3 |
| Cancer | 0.2 | 0.4 | 0.3 | 0.3 | 0.5 | 0.4 |
| Other | 2.7 | 2.9 | 2.8 | 3.5 | 3.5 | 3.5 |

The Table 4.2 and Figure 4.3 show the higher prevalence for female than male for some illnesses, primarily in High Blood Pressure (HBP), Diabetes, Asthma and Arthritis.

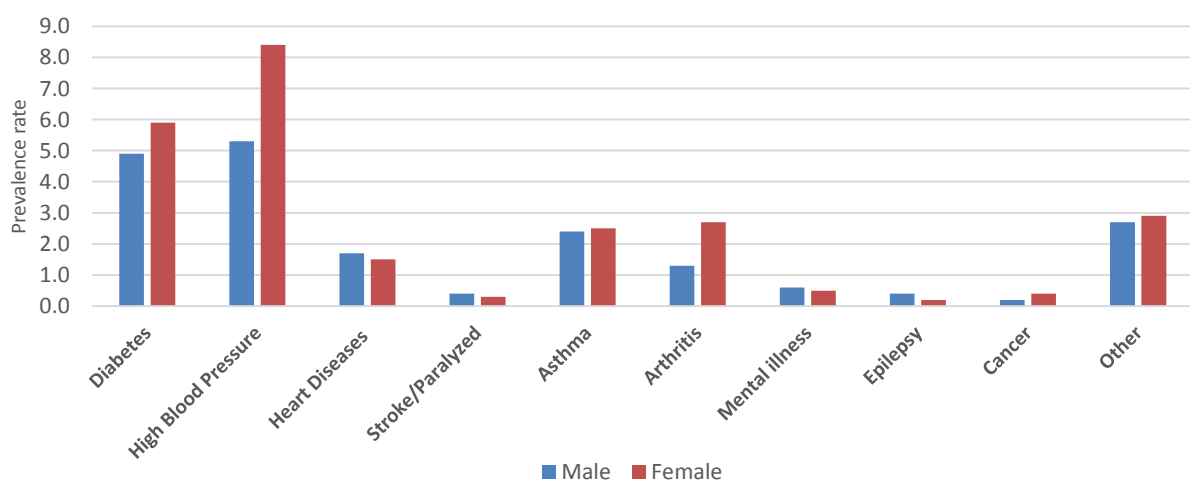


Figure 4.3: Prevalence of chronic illness by gender and type of illness

The people living in different districts have varying climates, weather conditions and economic and social infrastructures. Furthermore, their living conditions and cultural habits might differ and influence prevalence of chronic illnesses. Therefore it is important to see the prevalence³ of chronic illnesses at district level (see Figure 4.4, Annexures: Table A.1 and Map 4 to Map 11).

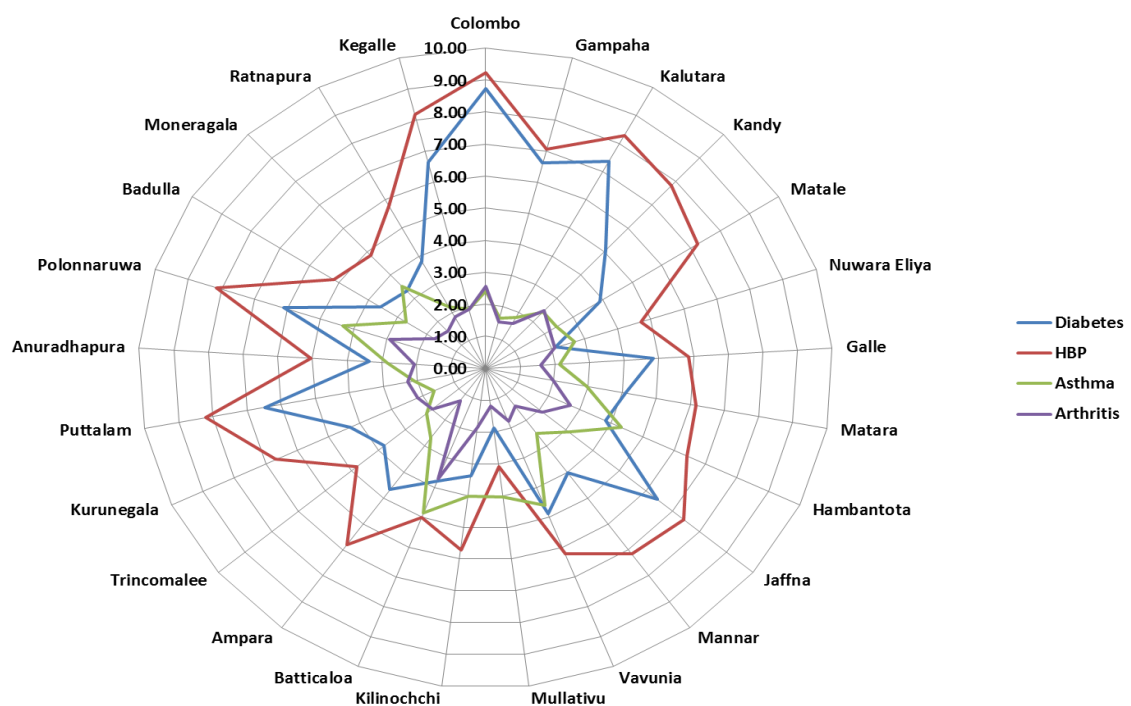


Figure 4.4: Prevalence of selected chronic illnesses by district

The prevalence rates of Diabetes and HBP are very low in the below 15 years age group. Therefore it is more important to discuss about prevalence of Diabetes and High Blood Pressure above the age category of age 15 years and above that is among working age population.

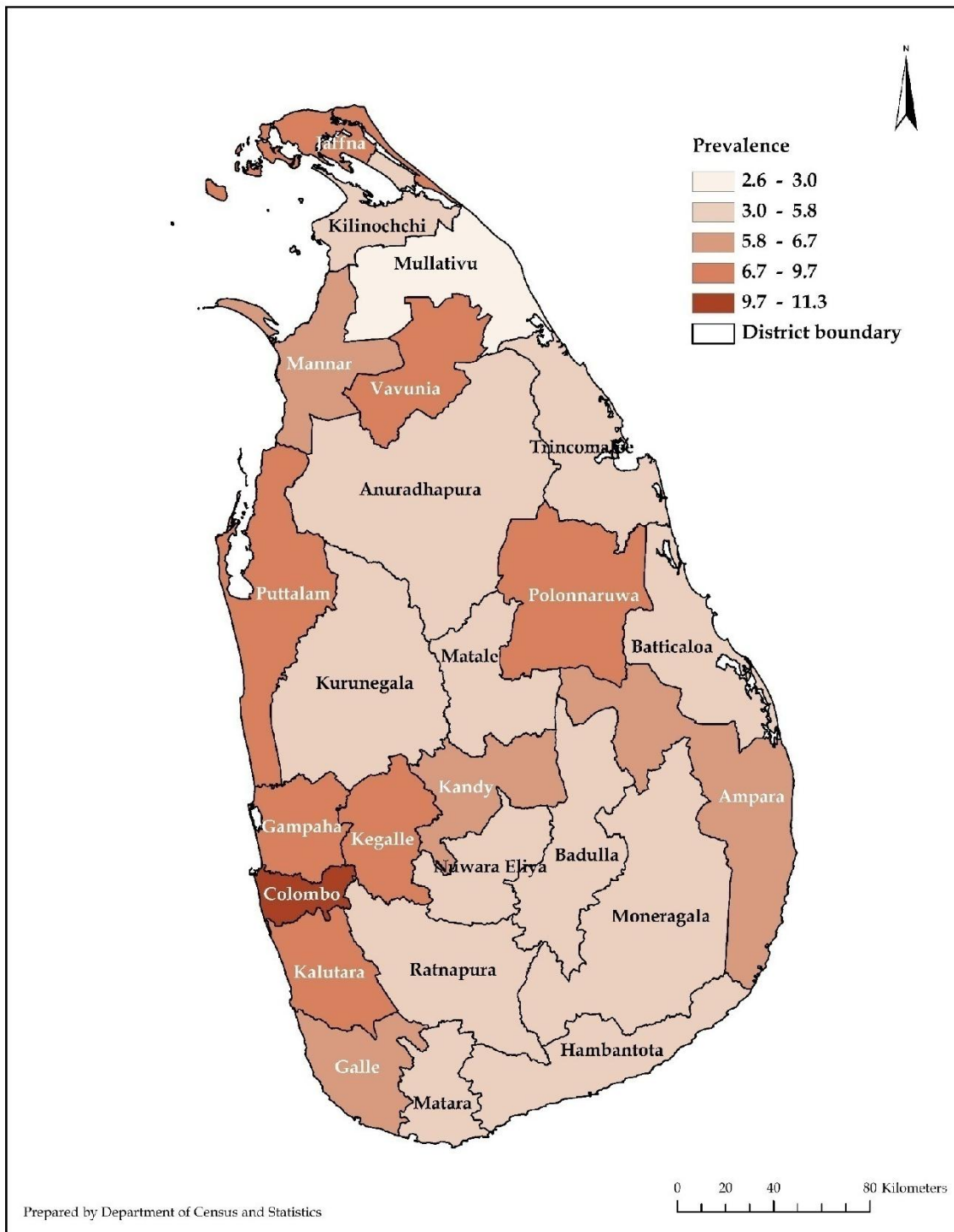
³ District level prevalence was calculated using the population of each district.

Table 4.3: Prevalence of Diabetes and High Blood Pressure for age 15 years and above population by District

| District | Diabetes | High Blood Pressure |
|--------------|----------|---------------------|
| Colombo | 11.2 | 11.9 |
| Gampaha | 8.6 | 9.1 |
| Kalutara | 9.7 | 11.0 |
| Kandy | 6.7 | 10.3 |
| Matale | 5.4 | 10.0 |
| Nuwara Eliya | 3.0 | 6.6 |
| Galle | 6.4 | 7.8 |
| Matara | 5.5 | 8.3 |
| Hambantota | 5.1 | 8.7 |
| Jaffna | 8.2 | 9.4 |
| Mannar | 5.8 | 10.3 |
| Vavunia | 6.7 | 8.6 |
| Mullativu | 2.7 | 4.2 |
| Kilinochchi | 4.9 | 8.3 |
| Batticaloa | 5.4 | 7.0 |
| Ampara | 6.6 | 9.7 |
| Trincomalee | 5.6 | 7.1 |
| Kurunegala | 5.7 | 8.9 |
| Puttalam | 9.0 | 11.4 |
| Anuradhapura | 4.8 | 7.1 |
| Polonnaruwa | 8.2 | 10.9 |
| Badulla | 4.8 | 7.0 |
| Moneragala | 4.6 | 6.7 |
| Ratnapura | 4.9 | 7.4 |
| Kegalle | 8.6 | 10.6 |
| Sri Lanka | 7.2 | 9.2 |

The prevalence of Diabetes in the population age 15 years and above is higher in districts Colombo, Kalutara and Puttalam. The prevalence of High Blood Pressure for the same population is higher than 10 percent in several districts and their distribution is clearly depicted in Map 1 and Map 2 below. The distribution of chronic illness across districts could vary due to several factors such as level of education, living conditions, socio economic status and environmental factors. Furthermore, since these are self-reported data, the subject awareness of the respondents can be a crucial factor for the estimated results.

Map 1: Prevalence of Diabetes among Age 15 Years and above Population by District



Map 2: Prevalence of High Blood Pressure among Age 15 Years and above Population by District

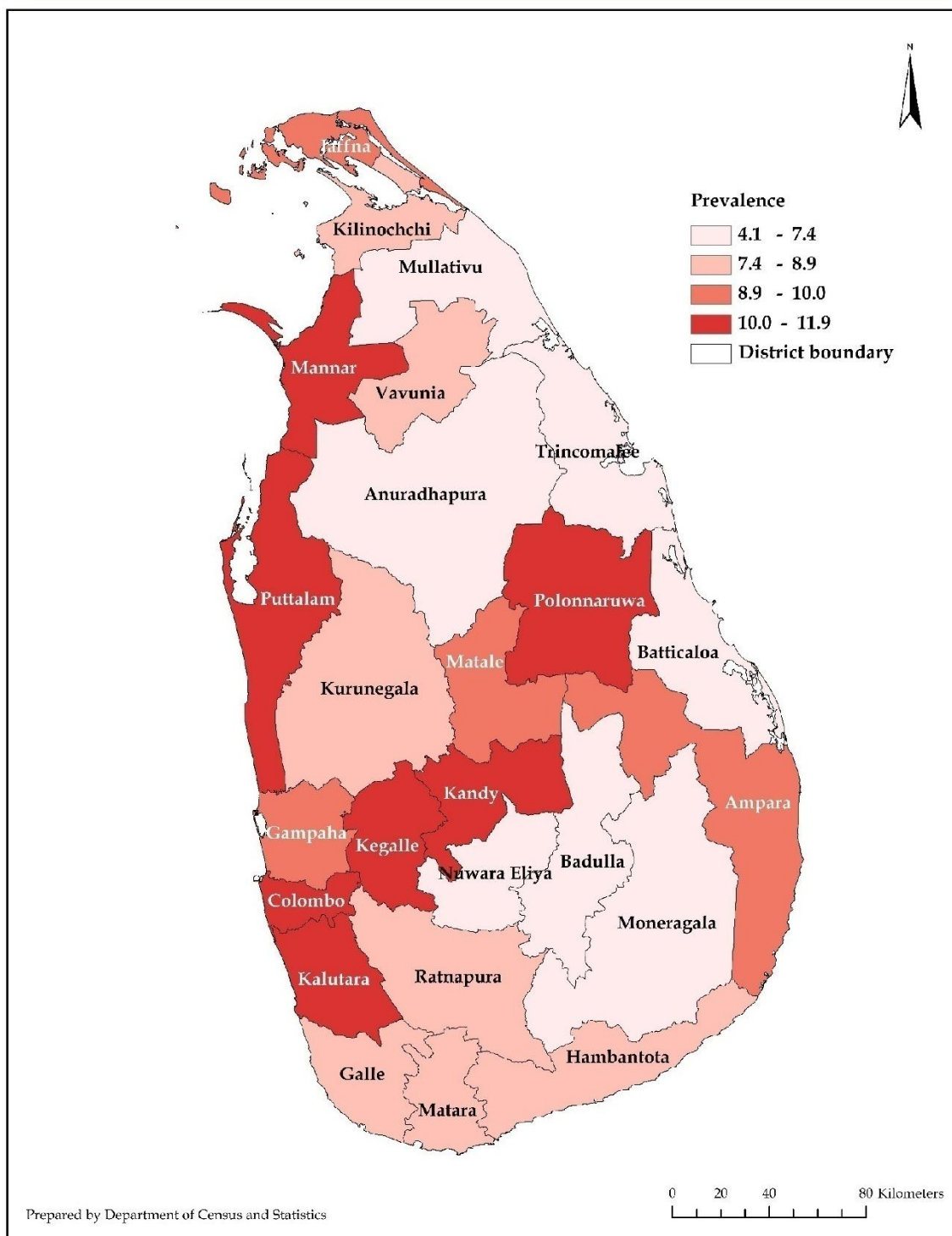
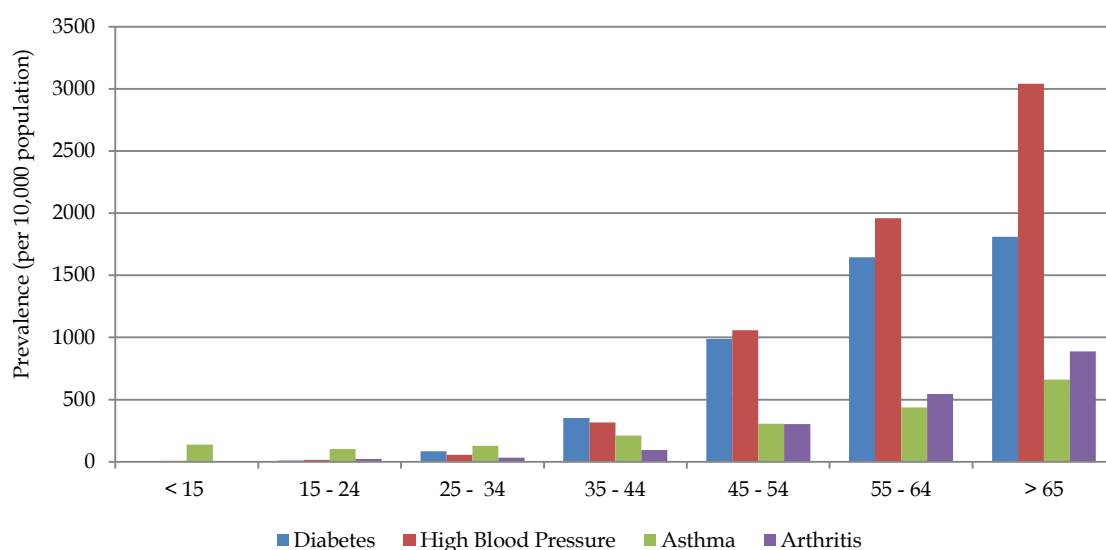


Table 4.4: Prevalence of Diabetes, High Blood Pressure, Asthma and Arthritis by age group (per 10,000 population)

| Age Group (years) | Diabetes | High Blood Pressure | Asthma | Arthritis |
|-------------------|----------|---------------------|--------|-----------|
| < 15 | 3 | 6 | 138 | 3 |
| 15 - 24 | 9 | 15 | 102 | 22 |
| 25 - 34 | 85 | 57 | 127 | 33 |
| 35 - 44 | 351 | 315 | 210 | 95 |
| 45 - 54 | 987 | 1059 | 305 | 303 |
| 55 - 64 | 1645 | 1959 | 438 | 544 |
| > 65 | 1810 | 3042 | 660 | 887 |

The above Table 4.4 and the below Figure 4.5 show the prevalence of chronic illnesses per 10,000 population and for different age groups. These show clearly that the prevalence for all selected chronic illnesses is increasing with age (Annexures: Table A.2).

**Figure 4.5: Prevalence of Diabetes, High Blood Pressure, Asthma and Arthritis by age group (per 10,000 population)**

5. Working age population and health status

The estimated working age population (age 15 years and above) is about 16.5 million, according to the 2014 Sri Lanka Labour Force Survey. Among this population approximately 8.8 million are in labour force (53.3%) and 7.7 million (46.7%) belong to not in labour force group. The following diagram shows the percentage distribution of the self-reported chronic illnesses among the working age population. Further, the labour force, not in labour force, employed (formal), employed (informal) and unemployed are considered separately for having any chronic illness or for not having any chronic illness.

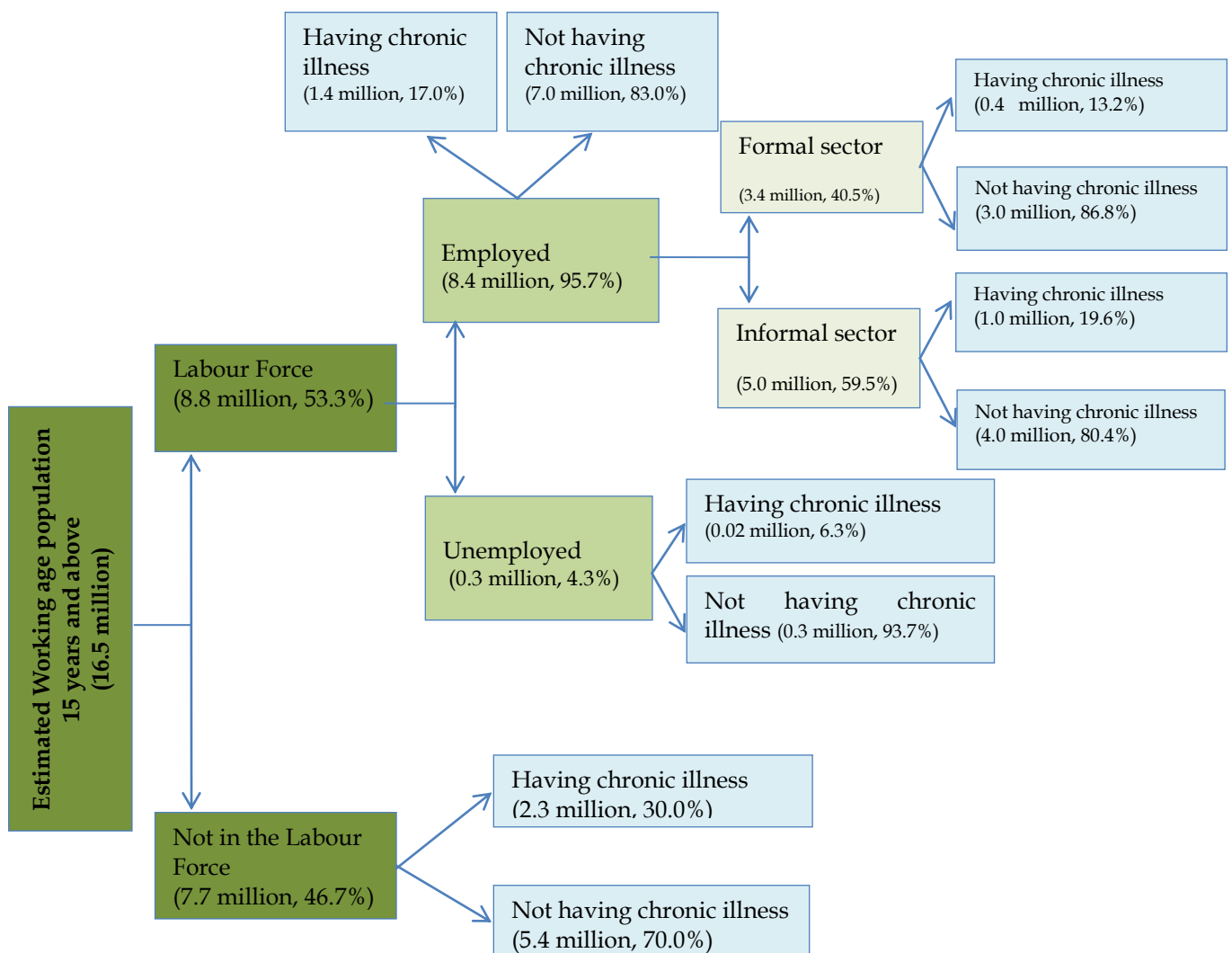


Diagram 1: Distribution of working age population by health status

5.1 Distribution of cases having chronic illnesses among working age (Age 15 years and above) population

Participation in economic activities may be affected due to the health condition of the working age population. Therefore, the labour force participation and the self-reported health condition for each gender were considered.

Table 5.1: Labour force participation rate by health status and gender

| Health status | Labour Force participation rate | | |
|--------------------------------|---------------------------------|--------|-------|
| | Male | Female | Total |
| Having any chronic illness | 58.6 | 23.9 | 38.6 |
| Not having any chronic illness | 78.8 | 38.3 | 57.6 |
| Total | 74.6 | 34.7 | 53.3 |

The Table 5.1 clearly shows that the labour force participation is higher for the group who are not having any chronic illness (57.6%) compared to those who are having a chronic illness (38.6%).

Table 5.2: Average actual hours worked and health status of employed persons

| Health status | Average working hours of employed persons(Hrs./week) | | |
|--------------------------------|--|--------|-------|
| | Male | Female | Total |
| Having any chronic illness | 41.5 | 35.0 | 39.2 |
| Not having any chronic illness | 44.2 | 37.9 | 42.1 |
| Total | 43.8 | 37.4 | 41.6 |

Health status of employed persons may affect their working hours. As shown in the Table 5.2 total average hours worked (per week) is slightly lower for the group having any chronic illness compared to group not having any chronic illness. This is true for both male and female.

5.2 Working age population having any chronic illness

It is important to explore the distribution of population having any chronic illness by age, gender and level of education within the working age population (Age 15 years and above) and their activity status. These distributions help us to understand health condition of the working age population of the country.

The Table 5.3 shows the distribution of persons having any chronic illness by their economic activity status and gender. When the economically active population is considered more cases are reported from the age group 25-59 years and when the economically inactive is considered more cases are reported from age group 60 years and above. This is true for both male and female.

Table 5.3: Percentage distribution of persons having any chronic illness in working age population by economic activity status, age and gender

| Age group (years) | Percentage of persons having any chronic illness | | | | | |
|-------------------|--|-------|--------|-----------------------|-------|--------|
| | Economically Active | | | Economically Inactive | | |
| | Total | Male | Female | Total | Male | Female |
| 15 - 24 | 1.9 | 1.8 | 1.9 | 3.3 | 4.5 | 2.8 |
| 25 - 59 | 71.3 | 69.2 | 75.1 | 36.8 | 22.1 | 42.6 |
| 60 and above | 26.9 | 29.0 | 23.0 | 59.9 | 73.3 | 54.6 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Table 5.4: Percentage distribution of persons having any chronic illness among working age population by economic activity status, level of education and gender

| Level of education | Percentage of persons having any chronic illness | | | | | |
|-----------------------|--|-------|--------|-----------------------|-------|--------|
| | Economically Active | | | Economically Inactive | | |
| | Total | Male | Female | Total | Male | Female |
| < Grade 5 | 25.4 | 23.6 | 28.7 | 36.9 | 36.6 | 36.9 |
| Grade 6 - 11 | 46.2 | 47.5 | 44.0 | 41.5 | 38.7 | 42.7 |
| G C E (O/L) | 14.4 | 15.4 | 12.8 | 13.6 | 14.4 | 13.2 |
| G C E (A/L) and above | 13.9 | 13.6 | 14.5 | 8.0 | 10.2 | 7.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

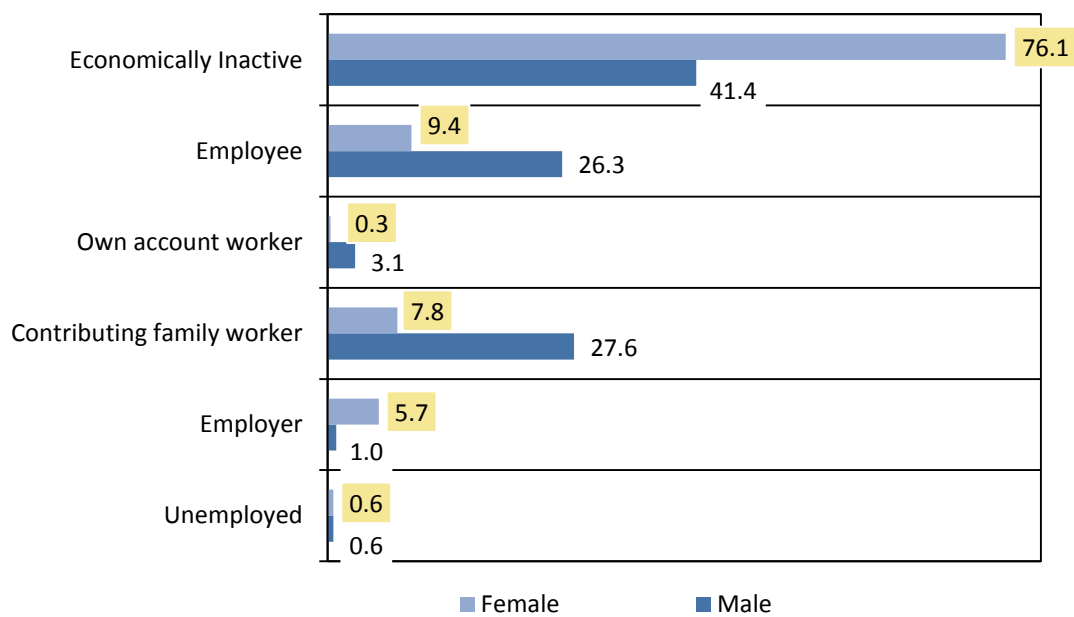


Figure 5.1: Percentage distribution of persons having any chronic illness by economic position and gender among the working age population

As given in Figure 5.1 among the persons having any chronic illness and who are in working-age majority are economically inactive and this is true for both male and female. Also among the women having any chronic illness the percentage of economically inactive is 76.1percent and among men having any chronic illness this percentage is 41.4 percent.

5.3 Prevalence of chronic illness among the working age population (Age 15 and above)

5.3.1 Prevalence of chronic illness by demographic characteristics

Table 5.5: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age population (Age 15 years and above) by age group and gender

| Age group (years) | Diabetes | | | High Blood Pressure | | | Asthma | | | Arthritis | | |
|-------------------|------------|------------|------------|---------------------|-------------|------------|------------|------------|------------|------------|------------|------------|
| | M | F | T | M | F | T | M | F | T | M | F | T |
| 15 - 24 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 1.1 | 1.0 | 1.1 | 0.2 | 0.2 | 0.2 |
| 25 - 59 | 5.6 | 6.3 | 6.0 | 4.8 | 7.6 | 6.3 | 2.0 | 2.7 | 2.4 | 1.0 | 2.5 | 1.8 |
| 60 and above | 17.1 | 18.7 | 18.0 | 22.6 | 31.1 | 27.3 | 6.6 | 5.3 | 5.9 | 5.9 | 9.7 | 8.0 |
| Total | 6.7 | 7.7 | 7.2 | 7.3 | 11.0 | 9.2 | 2.7 | 2.9 | 2.8 | 1.7 | 3.6 | 2.7 |

M - Male, F- Female, T- Total

Referring Table 5.5 and Figure 5.2, when the prevalence in the working age population is considered, a considerable gender difference can be observed for High Blood Pressure, Diabetes and Arthritis in older age groups. Also, in all illnesses a higher prevalence is reported among females who are in working age. As generally expected the age related prevalence of Diabetes, High Blood Pressure, Asthma and Arthritis increases with age.

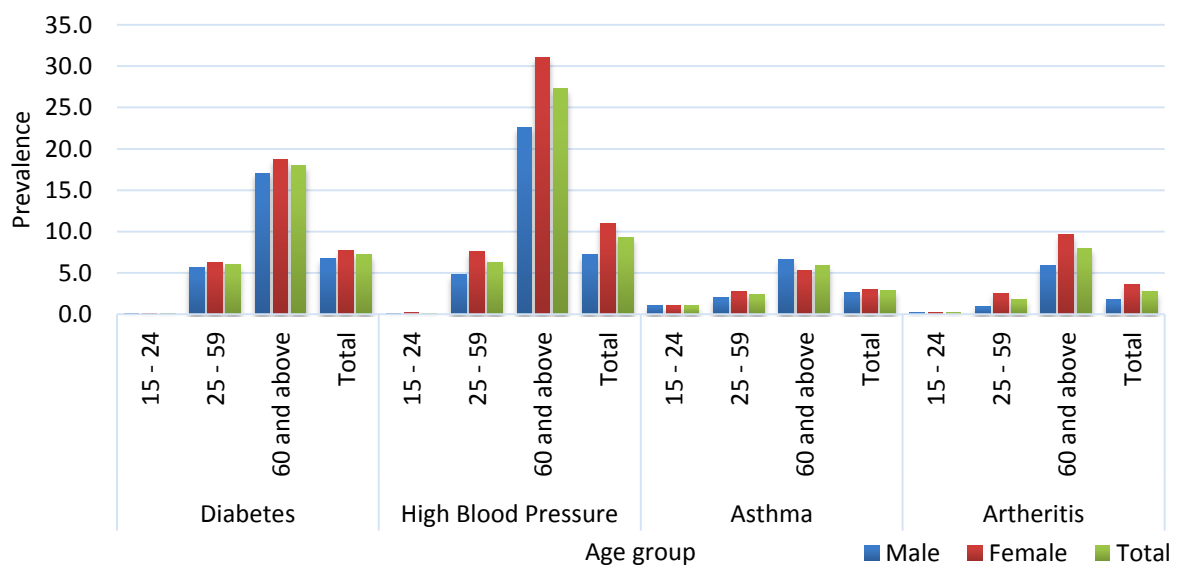


Figure 5.2: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age population

Table 5.6: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age population (Age 15 years and above) by level of education and gender

| Level of education | Diabetes | | | High Blood Pressure | | | Asthma | | | Arthritis | | |
|-----------------------|------------|------------|------------|---------------------|-------------|------------|------------|------------|------------|------------|------------|------------|
| | M | F | T | M | F | T | M | F | T | M | F | T |
| < Grade 5 | 7.0 | 12.3 | 10.0 | 11.6 | 21.9 | 17.4 | 5.8 | 6.1 | 6.0 | 4.6 | 7.8 | 6.4 |
| Grade 6 - 11 | 5.9 | 7.6 | 6.7 | 6.2 | 10.2 | 8.2 | 2.6 | 2.9 | 2.7 | 1.5 | 3.3 | 2.4 |
| G C E (O/L) | 7.0 | 6.3 | 6.6 | 6.5 | 7.3 | 7.0 | 1.6 | 1.7 | 1.7 | 0.8 | 2.0 | 1.4 |
| G C E (A/L) and above | 8.7 | 4.5 | 6.3 | 7.0 | 5.3 | 6.0 | 0.8 | 1.1 | 1.0 | 0.6 | 1.4 | 1.0 |
| Total | 6.7 | 7.7 | 7.2 | 7.3 | 11.0 | 9.2 | 2.7 | 2.9 | 2.8 | 1.7 | 3.6 | 2.7 |

M - Male, F- Female, T- Total

According to the Table 5.6, prevalence of Diabetes and HBP among females is markedly high in the least educated groups (< Grade5) within the working age population.

Table 5.7 shows the median monthly wage of the employees who are having Diabetes, High Blood Pressure, Asthma or Arthritis.

Table 5.7: Median monthly wage of employees with chronic illnesses (who are in the working age of 15 years and above) by level of education

| Level of education | Median monthly wage (Rupees) | | | |
|-----------------------|------------------------------|---------------------|---------------|---------------|
| | Diabetes | High Blood Pressure | Asthma | Arthritis |
| < Grade 5 | 9,900 | 10,000 | 8,400 | 9,000 |
| Grade 6 - 11 | 18,000 | 15,000 | 14,260 | 12,800 |
| G C E (O/L) | 20,000 | 25,000 | 16,000 | 22,000 |
| G C E (A/L) and above | 32,000 | 30,000 | 25,000 | 26,645 |
| Total | 20,700 | 18,000 | 13,200 | 13,000 |

The wages usually depends on level of education. The results find considerable variation in average wages of employees with any chronic illness in different levels of education.

Table 5.8: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age population (Age 15 years and above) by ethnicity and gender

| Ethnicity | Diabetes | | | High Blood Pressure | | | Asthma | | | Arthritis | | |
|--------------------------|------------|------------|------------|---------------------|-------------|------------|------------|------------|------------|------------|------------|------------|
| | M | F | T | M | F | T | M | F | T | M | F | T |
| Sinhalese | 6.6 | 7.6 | 7.1 | 7.0 | 10.9 | 9.1 | 2.5 | 2.7 | 2.6 | 1.7 | 3.6 | 2.7 |
| Sri Lankan Tamils | 6.5 | 6.8 | 6.7 | 6.7 | 9.8 | 8.4 | 4.4 | 4.6 | 4.5 | 2.6 | 3.5 | 3.1 |
| Sri Lankan Moors | 9.8 | 11.3 | 10.6 | 9.9 | 14.0 | 12.1 | 1.8 | 2.7 | 2.3 | 1.6 | 2.8 | 2.2 |
| Indian Tamils and others | 3.0 | 4.2 | 3.6 | 7.8 | 9.8 | 8.8 | 4.0 | 3.9 | 3.9 | 1.6 | 3.3 | 2.5 |
| Total | 6.7 | 7.7 | 7.2 | 7.3 | 11.0 | 9.2 | 2.7 | 2.9 | 2.8 | 1.7 | 3.6 | 2.7 |

M - Male, F- Female, T- Total

Table 5.8 shows a higher prevalence of Diabetes and High Blood Pressure among Sri Lankan Moors compared to other ethnic groups in the working age. This is true for both male and female.

Table 5.9: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age population (Age 15 years and above) by sector and gender

| Sector | Diabetes | | | High Blood Pressure | | | Asthma | | | Arthritis | | |
|--------------|------------|------------|------------|---------------------|-------------|------------|------------|------------|------------|------------|------------|------------|
| | M | F | T | M | F | T | M | F | T | M | F | T |
| Urban | 9.5 | 10.2 | 9.9 | 9.0 | 12.8 | 11.0 | 2.5 | 2.7 | 2.6 | 1.3 | 3.9 | 2.6 |
| Rural | 6.3 | 7.4 | 6.8 | 6.9 | 10.7 | 9.0 | 2.6 | 3.0 | 2.8 | 1.8 | 3.5 | 2.7 |
| Estate | 2.1 | 2.4 | 2.3 | 6.1 | 7.0 | 6.6 | 4.7 | 3.6 | 4.1 | 2.1 | 3.0 | 2.6 |
| Total | 6.7 | 7.7 | 7.2 | 7.3 | 11.0 | 9.2 | 2.7 | 2.9 | 2.8 | 1.7 | 3.6 | 2.7 |

M - Male, F- Female, T- Total

According to the Table 5.9, there is a higher prevalence of Diabetes and High Blood Pressure in Urban sector (for male, female and total). A higher prevalence in Arthritis for females compared to that of male in all three sectors. Prevalence of Asthma is higher in Estate sector compared to the others.

5.3.2 Prevalence of chronic illness by employment characteristics

Table 5.10: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age (Age 15 years and above) population by Occupation group

| Occupation group (According to ISCO 08) | Prevalence | | | |
|--|------------|------------|------------|------------|
| | Diabetes | HBP | Asthma | Arthritis |
| Senior Officials and Managers | 13.2 | 8.4 | 2.0 | 1.3 |
| Professionals | 6.2 | 5.7 | 0.9 | 0.8 |
| Technical and Associate Professionals | 5.9 | 5.2 | 1.0 | 0.8 |
| Clerks | 4.3 | 3.9 | 1.4 | 1.0 |
| Proprietors and Managers of Enterprises | 7.7 | 7.3 | 2.0 | 1.6 |
| Sales and Service Workers | 4.9 | 7.2 | 3.2 | 2.7 |
| Skilled Agricultural and Fishery Workers | 4.7 | 5.2 | 2.1 | 1.6 |
| Craft and Related Workers | 6.5 | 4.9 | 1.5 | 0.6 |
| Plant and Machine operators and Assemblers | 3.7 | 5.2 | 2.8 | 1.8 |
| Unidentified | 0.9 | 2.1 | 0.6 | 0.5 |
| Total Employed | 5.6 | 5.9 | 2.2 | 1.7 |

Referring to Table 5.10, higher prevalence of Diabetes and HBP is seen among senior officials and managers compared to other groups. Since the survey results depend on self-reported illnesses, more awareness and screening for the illness might affect results of the educated and well-off groups.

Table 5.11: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age (Age 15 years and above) population by Main Industry

| Main Industry group | Prevalence | | | |
|-----------------------|------------|---------------------|------------|------------|
| | Diabetes | High Blood Pressure | Asthma | Arthritis |
| Agriculture | 4.3 | 6.6 | 3.2 | 2.5 |
| Industry | 4.4 | 4.7 | 2.1 | 1.4 |
| Services | 7.1 | 6.2 | 1.7 | 1.3 |
| Total Employed | 5.6 | 5.9 | 2.2 | 1.7 |

Among the employed the prevalence of Diabetes is higher among service sector employment compared to other two groups.

Table 5.12: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age (Age 15 years and above) population by Industry group

| Industry group | Prevalence | | | |
|-------------------------|------------|------------|------------|------------|
| | Diabetes | HBP | Asthma | Arthritis |
| 1 | 4.3 | 6.6 | 3.2 | 2.5 |
| 2 | 4.6 | 3.5 | 2.2 | 1.7 |
| 3 | 4.8 | 5.3 | 2.0 | 1.6 |
| 6 | 3.2 | 3.4 | 2.4 | 0.7 |
| 7 | 8.4 | 8.0 | 2.1 | 1.8 |
| 8 | 7.3 | 4.9 | 1.5 | 0.6 |
| 9 | 7.2 | 6.7 | 2.1 | 1.8 |
| 10 | 6.1 | 3.9 | .. | .. |
| 11 | 4.9 | 4.6 | 0.8 | 0.8 |
| 13 | 9.2 | 7.5 | 1.4 | 1.1 |
| 14 | 7.9 | 5.0 | 1.2 | 1.7 |
| 15 | 5.6 | 4.3 | 1.0 | 0.7 |
| 16 | 7.5 | 6.5 | 1.5 | 0.9 |
| 17 | 5.4 | 3.7 | 1.7 | 1.3 |
| 19 | 7.6 | 7.1 | 3.2 | 1.6 |
| 20 | 5.7 | 7.5 | 2.9 | 2.4 |
| Other | 7.2 | 6.3 | 2.7 | 1.4 |
| Total employment | 5.6 | 5.9 | 2.2 | 1.7 |

.. Not reported

Industry group

1 Agriculture, forestry and fishing (A)

2 Mining & quarrying (B)

3 Manufacturing (C)

6 Construction, Electricity, gas, steam and air conditioning supply, Water supply, sewerage, waste management and remediation activities (D, E,F)

7 Wholesale and retail trade, repair of motor vehicles and motor cycles(G)

8 Transportation and storage (H)

9 Accommodation and food services activities (I)

10 Information and communication (J)

11 Financial and insurance activities (K)

13 Professional, scientific and technical activities (M)

14 Administrative and support service activities (N)

15 Public administration and defence compulsory social security (O)

16 Education (P)

17 Human health and social work activities (Q)

19 Other service activities (S)

20 Activities of households as employers; undifferentiated goods and services - producing activities of households for own use (T)

Other

12 Real estate activities (L)

18 Arts, entertainment and recreation (R)

21 Activities of extra territorial organizations & bodies (U)

As given in Table 5.12 the prevalence of Diabetes as well as High Blood Pressure is higher among the employed who are working in industries such as professional, scientific and technical activities (M) and wholesale and retail trade, repair of motor

vehicles and motor cycles(G). Other than these two groups activities of households as employers; undifferentiated goods and producing activities of households for own use (T) industry group is having higher prevalence of High Blood Pressure.

Table 5.13: Prevalence of Diabetes, HBP, Asthma and Arthritis among working age (Age 15 years and above) population by Formal/Informal sector

| Employed sector | Prevalence | | | |
|-----------------|------------|-----|--------|-----------|
| | Diabetes | HBP | Asthma | Arthritis |
| Formal | 5.3 | 4.5 | 1.4 | 0.9 |
| Informal | 5.7 | 6.9 | 2.8 | 2.2 |
| Total Employed | 5.6 | 5.9 | 2.2 | 1.7 |

Table 5.13 shows that among employed population, informal sector employed is having higher prevalence rates for all four kinds of chronic illnesses compared to those who work in formal sector.

Table 5.14: Prevalence of Diabetes, HBP, Asthma and Arthritis among employed population (in the working age of 15 years and over) by age group and level of education

| Level of education | Diabetes | | | High Blood Pressure | | | Asthma | | | Arthritis | | |
|-----------------------|-------------------|-------------|-------|---------------------|-------------|-------|-------------------|-------------|-------|-------------------|-------------|-------|
| | Age group (years) | | | Age group (years) | | | Age group (years) | | | Age group (years) | | |
| | 25-59 | 60 and over | Total | 25-59 | 60 and over | Total | 25-59 | 60 and over | Total | 25-59 | 60 and over | Total |
| < Grade 5 | 4.8 | 10.8 | 6.1 | 7.2 | 18.1 | 9.7 | 3.7 | 6.1 | 4.2 | 3.0 | 6.9 | 3.9 |
| Grade 6 - 11 | 4.5 | 13.5 | 4.9 | 4.7 | 16.7 | 5.4 | 2.2 | 5.2 | 2.4 | 1.3 | 5.0 | 1.6 |
| G C E (O/L) | 5.7 | 22.1 | 6.5 | 4.2 | 19.6 | 5.1 | 1.5 | 4.0 | 1.5 | 0.7 | 2.6 | 0.8 |
| G C E (A/L) and above | 5.6 | 23.9 | 5.9 | 4.4 | 19.3 | 4.6 | 0.8 | 0.9 | 0.8 | 0.7 | 0.9 | 0.7 |
| Total | 5.0 | 14.5 | 5.6 | 5.0 | 17.8 | 5.9 | 2.0 | 5.0 | 2.2 | 1.4 | 5.0 | 1.7 |

Among the employed the highest prevalence of Diabetes is reported from the group with age 60 years and over and G.C.E. (A/L) and above level of education (23.9). Further this means about one out of every four educated employed elderly person (age 60 years and over) is having Diabetes. The same group shows a prevalence rate of 19.3 for HBP.

5.4 Distribution of place visited for treatment of chronic illness

The Table 5.15 shows the distribution of type of places visited for treatments. This Percentage was calculated using the number of reported cases visited to a place for a given chronic illness and dividing it by the total number of cases reported for the same illness. One person can visit several places for treatment therefore; reported number of places visited may be greater than the number of self-reported cases.

Table 5.15: Percentage distribution of type of place visited for chronic illness

| Place visited | Diabetes | HBP | Heart disease | Stroke/ Paralyzed | Cancer | Asthma | Mental illness | Arthritis | Epilepsy | Other |
|-------------------------------|----------|------|---------------|----------------------|--------|--------|-------------------|-----------|----------|-------|
| No treatment | 3.7 | 2.9 | 3.6 | 5.5 | 3.2 | 5.7 | 22.7 | 5.8 | 10.4 | 11.2 |
| Own treatment | 6.1 | 5.8 | 5.5 | 4.0 | 5.0 | 5.2 | 3.0 | 6.5 | 4.1 | 5.0 |
| Govt. Hospital (Western) | 60.9 | 60.6 | 73.9 | 45.8 | 68.6 | 51.3 | 50.6 | 54.5 | 51.6 | 48.1 |
| Govt. Clinics (Western) | 48.8 | 47.6 | 64.6 | 49.0 | 51.3 | 36.8 | 31.4 | 38.2 | 35.0 | 34.4 |
| Pvt. Hospital (Western) | 21.4 | 18.1 | 18.7 | 13.1 | 12.7 | 13.1 | 4.4 | 13.5 | 7.5 | 12.2 |
| Pvt. Clinics (Western) | 41.1 | 39.6 | 27.6 | 24.4 | 20.6 | 26.4 | 8.7 | 30.2 | 14.9 | 23.6 |
| Govt. Hospital (Ayurvedic) | 0.8 | 0.8 | 0.4 | 7.3 | 2.0 | 1.0 | 1.3 | 4.6 | 0.7 | 2.2 |
| Govt. Clinics (Ayurvedic) | 0.9 | 1.0 | 0.9 | 2.7 | 2.5 | 1.1 | 0.3 | 3.9 | 1.0 | 1.8 |
| Pvt. Hospital (Ayurvedic) | 0.8 | 0.7 | 0.4 | 6.5 | 1.9 | 0.5 | 0.4 | 3.9 | 0.6 | 1.9 |
| Pvt. Clinics (Ayurvedic) | 0.8 | 0.8 | 0.5 | 9.6 | 0.7 | 0.6 | 0.6 | 3.6 | 0.4 | 2.2 |

Table 5.15 shows that for all the above illnesses the most common place visited for treatment is government hospital (western)/government clinics (western). However, the survey finds that about 23 percent of reported mental illnesses do not get any treatment.

6. Distribution of acute illnesses

The information related to acute illnesses was also collected from each and every individual who are living in selected households for the survey. The reference period for the acute illnesses was previous four weeks to the survey date. The results reveal that 14.7 percent of the total population received treatment for any acute illness considered in the survey during the reference period.

Table 6.1 depicts the percentage distribution of the population received treatment for any kind of acute illness by age groups and districts. These percentages are calculated as a percent to the respective population.

Table 6.1: Percentage distribution of having any acute illness

| District | Percentage of persons having any acute illness (%) | | | | |
|--------------|--|--------------------|--------------------|--------------------|-------------------------|
| | Less than 15 years | Age 15 to 24 years | Age 25 to 59 years | Above age 60 years | To the total population |
| Colombo | 17.5 | 9.2 | 7.8 | 9.6 | 10.5 |
| Gampaha | 26.0 | 8.9 | 9.4 | 11.0 | 13.4 |
| Kalutara | 23.2 | 10.2 | 8.5 | 11.7 | 12.8 |
| Kandy | 22.4 | 8.3 | 10.0 | 14.0 | 13.4 |
| Matale | 32.6 | 11.1 | 13.3 | 14.0 | 18.4 |
| Nuwara Eliya | 14.9 | 8.2 | 8.3 | 14.5 | 11.2 |
| Galle | 20.0 | 9.1 | 7.2 | 11.5 | 11.3 |
| Matara | 25.8 | 12.4 | 10.9 | 10.8 | 14.9 |
| Hambantota | 36.5 | 16.7 | 13.5 | 19.8 | 21.0 |
| Jaffna | 8.7 | 5.4 | 4.5 | 10.1 | 6.6 |
| Mannar | 11.2 | 2.4 | 7.9 | 12.9 | 8.5 |
| Vavunia | 15.0 | 8.2 | 10.9 | 21.4 | 12.4 |
| Mullativu | 11.5 | 8.9 | 8.0 | 19.6 | 10.2 |
| Kilinochchi | 17.1 | 6.4 | 12.3 | 22.0 | 13.7 |
| Batticaloa | 19.0 | 7.3 | 13.1 | 21.9 | 14.4 |
| Ampara | 16.9 | 5.3 | 10.4 | 15.1 | 11.9 |
| Trincomalee | 22.6 | 11.5 | 14.6 | 24.1 | 17.4 |
| Kurunegala | 28.3 | 10.5 | 12.9 | 14.6 | 16.7 |
| Puttalam | 28.1 | 12.1 | 13.2 | 17.1 | 17.7 |
| Anuradhapura | 32.9 | 14.2 | 16.0 | 28.3 | 22.1 |
| Polonnaruwa | 37.3 | 14.1 | 19.4 | 31.7 | 24.8 |
| Badulla | 20.5 | 10.1 | 10.2 | 14.7 | 13.5 |
| Monaragala | 21.8 | 9.7 | 10.0 | 14.5 | 13.7 |
| Ratnapura | 26.2 | 10.4 | 11.2 | 13.4 | 14.8 |
| Kegalle | 37.9 | 20.1 | 20.0 | 23.6 | 24.7 |
| Sri Lanka | 24.2 | 10.2 | 10.9 | 14.4 | 14.7 |

According to the Table 6.1, for Sri Lanka, the highest percentage reported for having acute illnesses is 24.2 percent and it is reported for the group age less than 15 years.

That means about one out of every four children below 15 years of age is having some kind of acute illness during the reference period. The lowest percentage of having acute illness (10.2%) is reported from the youth (age group 15-24 years). Among the districts the highest percentage of having acute illness is reported from Polonnaruwa district (24.8%) while the lowest percentage is reported from Jaffna (6.6%).

Table 6.2 depicts the percentage of the cases reported for four highest reported acute illnesses in the survey; Fever, Cough, Headache and Joint aches. One person may have reported multiple illnesses with a maximum of three acute illnesses per person. Therefore when these percentages are obtained the number of cases reported for each illness is divided by the respective population.

Table 6.2: Percentage of cases reported having Fever, Cough, Headache and Joint aches by age group

| Age Group (years) | Fever | Cough | Headache | Joint aches |
|-------------------|------------|------------|------------|-------------|
| < 15 | 15.6 | 9.6 | 0.8 | 0.1 |
| 15 - 24 | 6.3 | 3.2 | 1.0 | 0.2 |
| 25 - 34 | 5.3 | 3.3 | 0.9 | 0.4 |
| 35 - 44 | 5.4 | 3.2 | 1.1 | 1.1 |
| 45 - 54 | 6.0 | 3.5 | 1.6 | 2.0 |
| 55 - 64 | 5.8 | 3.5 | 1.4 | 2.4 |
| > 65 | 6.3 | 4.0 | 1.4 | 3.8 |
| Total | 8.4 | 5.1 | 1.1 | 1.1 |

The highest reported acute illness is fever (8.4%) and less than 15 years age group show comparatively higher percentages for fever and cough (Figure 6.1).

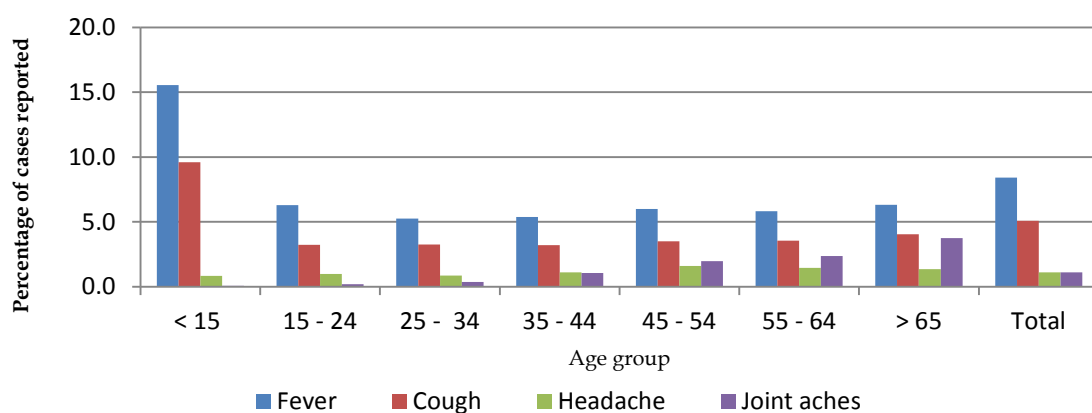
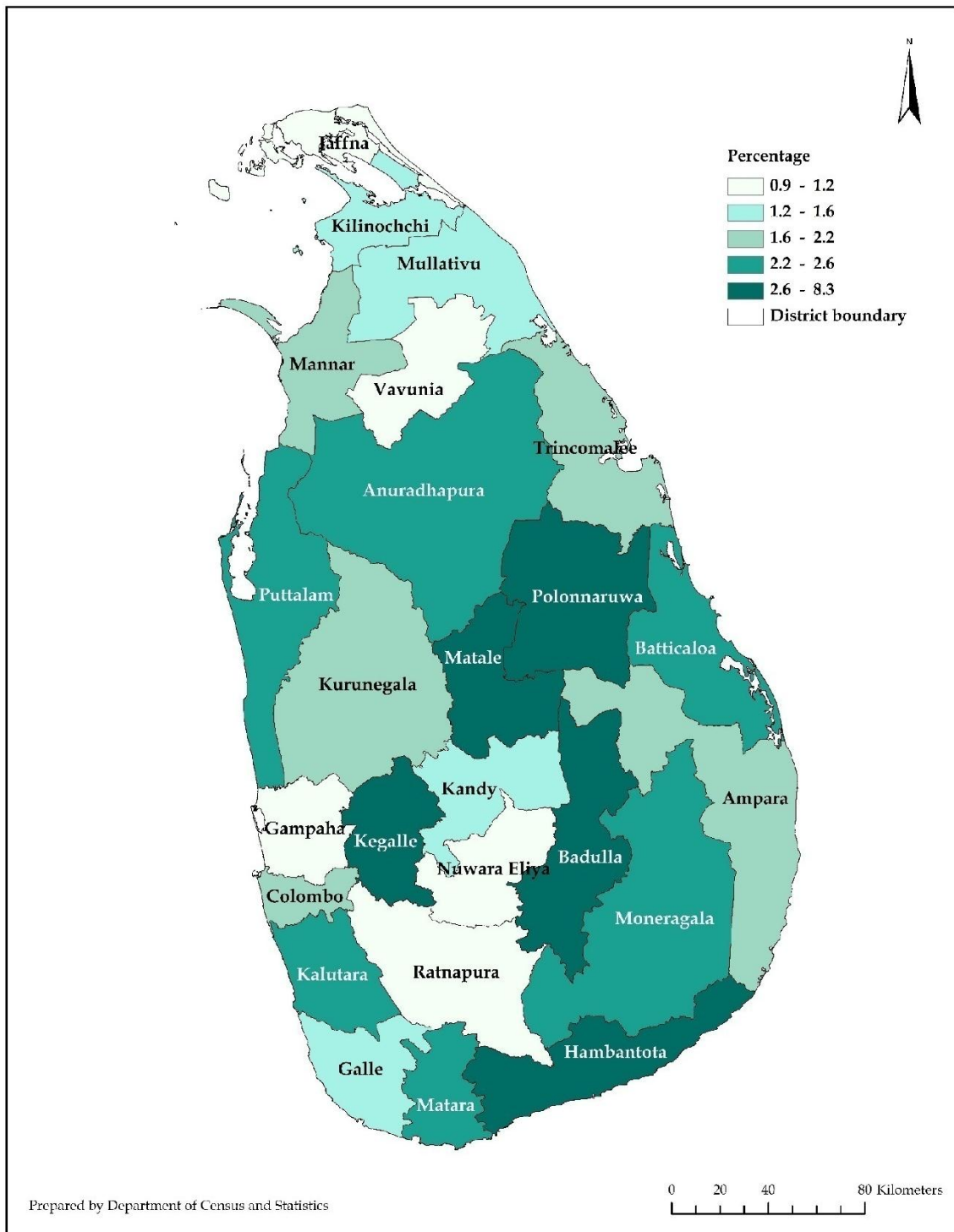


Figure 6.1: Percentage of cases reported having Fever, Cough, Headache and Joint aches

Map 3: Percentage of Cases Reported for Having Both Fever & Cough within Each District



The above Map 3 shows the percentage of having both illnesses Fever & Cough as a percentage to the total district population.

6.1 Distribution of place visited for treatment of acute illness

The calculation of percentage of type of place visited for treatment of acute illness is similar to that for chronic illness in section 5.4. Following Table 6.3 shows the distribution of type of place visited for treatment of acute illness.

Table 6.3: Percentage distribution of type of place visited for treatment of acute illness

| Place | Diarrhoea | Vomiting | Fever | Cough | Headache | Stomachache | Wheezing | Sore throat | Joint aches | Skin diseases |
|----------------------------|-----------|----------|-------|-------|----------|-------------|----------|-------------|-------------|---------------|
| No treatment | .. | 4.0 | 2.0 | 2.5 | 6.4 | 3.4 | 1.7 | 4.7 | 3.2 | 1.5 |
| Own treatment | 8.1 | 13.1 | 6.4 | 7.6 | 12.5 | 9.9 | 7.8 | 10.7 | 9.6 | 7.9 |
| Govt. Hospital (Western) | 99.9 | 85.4 | 51.9 | 52.4 | 77.4 | 62.1 | 52.8 | 49.1 | 48.4 | 45.4 |
| Govt. Clinics (Western) | 22.3 | 62.3 | 28.5 | 37.4 | 73.2 | 38.2 | 29.2 | 40.9 | 19.9 | 15.6 |
| Pvt. Hospital (Western) | 14.4 | 19.2 | 17.0 | 18.9 | 18.7 | 13.8 | 9.6 | 18.4 | 9.8 | 21.5 |
| Pvt. Clinics (Western) | 31.3 | 62.3 | 51.2 | 69.2 | 77.2 | 49.8 | 53.1 | 67.4 | 34.2 | 32.2 |
| Govt. Hospital (Ayurvedic) | 1.3 | 0.6 | 0.6 | 0.9 | 2.0 | 1.2 | 2.9 | 1.6 | 5.2 | 0.5 |
| Govt. Clinics (Ayurvedic) | .. | 1.5 | 0.9 | 1.6 | 1.0 | 2.0 | .. | 3.2 | 4.0 | 1.0 |
| Pvt. Hospital (Ayurvedic) | .. | .. | 0.2 | 0.3 | 1.1 | 0.6 | 0.3 | 2.4 | 0.9 | 0.6 |
| Pvt. Clinics (Ayurvedic) | .. | .. | 0.2 | 0.3 | .. | 0.4 | 0.6 | .. | 3.1 | 1.8 |

.. Not reported

Both Government hospital (western) and Private clinics (western) are found to be the mostly visited places for treatment of acute illnesses unlike in chronic illnesses. However, for Diarrhoea about 99.9 percent visited Government hospitals (western)

7. Accidents occurred and required treatment

This chapter discusses about the accidents reported during the reference period (during previous 3 months) and considered only who met with an accident and got treatments from a hospital or a medical clinic. The prevalence of accidents was calculated per 1000 persons.

Table 7.1: Prevalence of accidents during a period of three months by age and gender (per 1000 persons)

| Age group(years) | Gender | | Total |
|------------------|--------|--------|-------|
| | Male | Female | |
| Less than 14 | 7 | 4 | 6 |
| 15 - 24 | 14 | 5 | 9 |
| 25 - 59 | 17 | 9 | 13 |
| 60 and above | 19 | 13 | 16 |
| Total | 14 | 8 | 11 |

Table 7.1 shows that more males compared to female had met with an accident during the reference period. This is true for all age groups. The highest prevalence is reported from age group age 60 years and above and this is true for both male and female.

The following Figure 7.1 shows that the highest reported accidents were from Trincomalee district during the reference period.

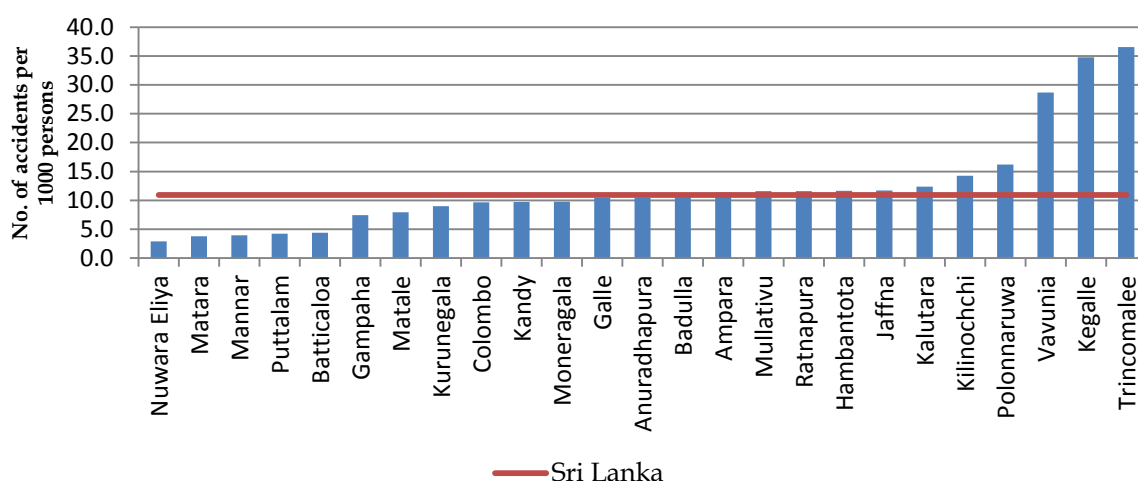


Figure 7.1: Accidents per 1000 persons during a period of three months

7.1 Treatment for accidents

Generally, persons who met with an accident have to visit several times to a hospital or a clinic for treatment. The survey collected data on number of times visited for treatment for each accident reported during the reference period. The Table 7.2 shows the percentage distribution of the number of times visited for treatment for an accident by gender. The highest percentage of persons who met with an accident has taken treatments three or more times (47.3%). This is true for both male and females.

Table 7.2: Percentage distribution of the number of times visited for treatment for an accident by gender

| Times of taking treatments | Gender | | Total |
|----------------------------|--------|--------|-------|
| | Male | Female | |
| 1 time | 27.0 | 27.9 | 27.3 |
| 2 times | 26.0 | 24.6 | 25.4 |
| 3 or more times | 47.1 | 47.5 | 47.3 |
| Total | 100.0 | 100.0 | 100.0 |

It is important to study the place where people met with an accident. The Table 7.3 shows the place of accident for different age groups. The results reveal that when the total population is considered 42.6 percent of accidents occurred at home while the road traffic accidents are 31.4 percent.

Table 7.3: Percentage distribution of accidents by place of occurrence and age

| Place of occurrence an accident | Age group (years) | | | | Total |
|---------------------------------|-------------------|---------|---------|--------------|-------|
| | Less than 14 | 15 - 24 | 25 - 59 | 60 and above | |
| Place of working | 1.2 | 9.5 | 20.2 | 7.8 | 13.9 |
| Home | 57.3 | 40.7 | 36.5 | 50.4 | 42.6 |
| Road traffic accidents | 20.7 | 39.9 | 33.2 | 28.5 | 31.4 |
| Other | 20.7 | 9.9 | 10.0 | 13.4 | 12.1 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Accidents occurred at home show the highest percentage for all age groups. Among children age less than 14 years the percentage of home accident is 57.3 percent. The Figure 7.2 further shows the result clearly.

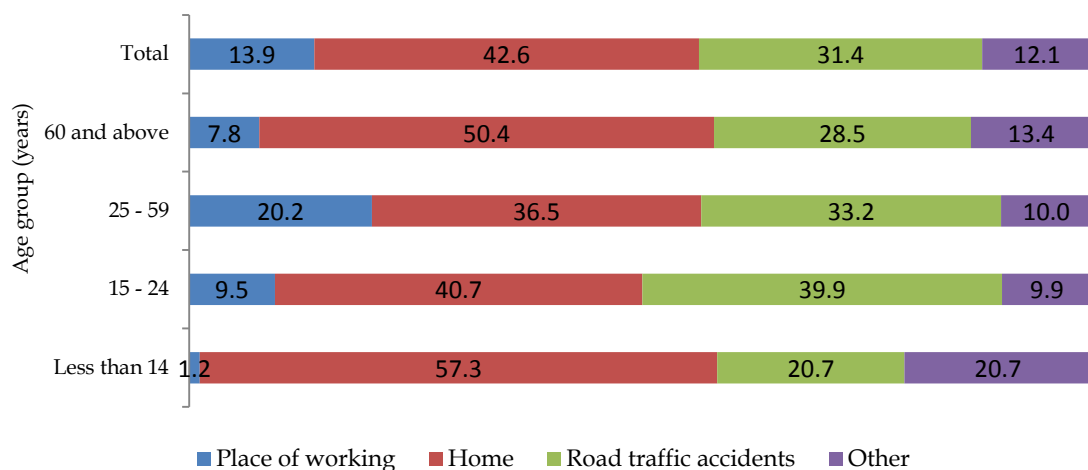


Figure 7.2: Percentage distribution of accidents by place of accident and age

7.2 Accidents occurred at the place of work

Statistics on accidents occurred at place of work are very crucial, the survey collected data related to accidents occurred at work. Table 7.4 shows the distribution of accidents by different occupation groups.

Table 7.4: Percentage distribution of accident occurred at place of work by occupation group

| Occupation group | Percentage |
|--|--------------|
| Unidentified | 0.8 |
| Senior Officials and Managers | 0.8 |
| Professionals | 1.1 |
| Technical and Associate Professionals | 5.0 |
| Clerks | 0.9 |
| Proprietors and Managers of Enterprises | 6.6 |
| Sales and Service Workers | 15.7 |
| Skilled Agricultural and Fishery Workers | 34.2 |
| Craft and Related Workers | 10.3 |
| Plant and Machine Operators and Assemblers | 24.7 |
| Total | 100.0 |

The highest percentages of accidents are concentrated among Skilled Agricultural and Fishery Workers (34.2%) and Plant and Machine Operators and Assemblers (24.7%) both of whom are engaged in machinery use.

8. Smoking, alcohol use, health screening and health insurance

The survey collected data on smoking, alcohol use, health screening methods and health insurance. The results are discussed in this section.

8.1 Smoking and alcohol use

The survey collected data from persons who are generally smoking and from persons who are generally using alcohol. The results depend on the self-reported information but have not done any test on use. Those who have answered “yes” for using were further questioned. Percentages to the total respective population were calculated.

Table 8.1: Percentage of population reported regular smoking and regular alcohol use

| Health related indicator | Percentage | | |
|---------------------------------|------------|--------|-------|
| | Male | Female | Total |
| Regularly smoking (tobacco use) | 12.3 | 0.3 | 6.0 |
| Regularly using alcohol | 9.8 | 0.2 | 4.8 |

Table 8.1 shows that 6 percent of Sri Lankan population is regular smokers. Also 4.8 percent of population is regular alcohol users. However, when the males and females separately considered 12.3 percent of males are smokers and 9.8 percent of males are alcohol users. The results reveal a very small percentage of regular female smokers. Also the size of regular female alcohol users is comparatively small.

Further the smoking and alcohol use are analyzed with age groups in Figure 8.1. Regular alcohol use is the highest in age group 41-50 years while regular smoking is the highest in age group 51-60 years.

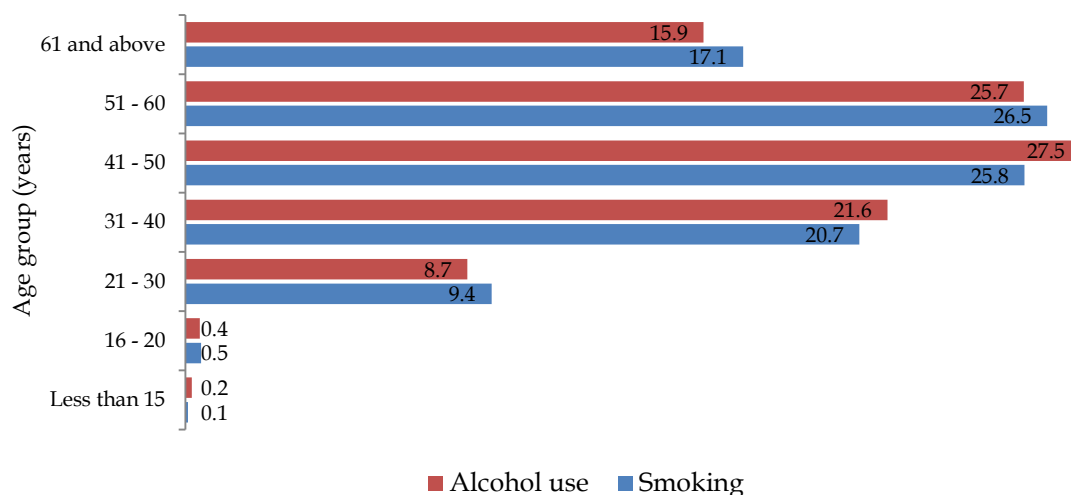


Figure 8.1: Percentage distribution of regularly smoking and alcohol use by age group

8.2 Health screening

Health screening is found to be important to take preventive actions against chronic illness. The survey collected data from all the respondents, whether they had ever checked their blood pressure, blood glucose and cholesterol. Following Table 8.2 depicts the percentage of persons having ever checked blood pressure, glucose and cholesterol for those who are having and not having chronic illnesses. The percentages were calculated for the respective population.

Table 8.2: Percentage of persons having ever checked blood pressure, glucose and cholesterol by gender

| Health related indicator | Percentage to the population | | |
|---------------------------------------|------------------------------|--------|-------|
| | Male | Female | Total |
| Having ever checked blood pressure | 45.9 | 56.8 | 51.6 |
| Having ever checked blood glucose | 34.2 | 47.4 | 41.1 |
| Having ever checked blood cholesterol | 23.3 | 28.9 | 26.2 |

When the total population is considered more than fifty percent of people are having ever checked blood pressure (51.6%). Also about 41 percent have ever checked blood

glucose and about 26 percent ever checked for blood cholesterol. The percentages are higher for female than for male for all three categories.

The following Table 8.3 shows the percentage distribution of having ever checked blood pressure, having ever checked blood glucose or having ever checked blood cholesterol for those who self-reported that they are not having High Blood Pressure, Diabetes or Heart Diseases.

Table 8.3: Percentage distribution of health screening among those who are not having HBP, Diabetes or Heart disease with age groups

| Age group (years) | Not having HBP | Not having Diabetes | Not having Heart disease |
|-------------------|------------------------|-----------------------|---------------------------|
| | Checked Blood pressure | Checked Blood glucose | Checked Blood cholesterol |
| 0 - 19 | 7.3 | 3.5 | 1.9 |
| 20 - 39 | 35.0 | 32.1 | 23.7 |
| 40 - 59 | 38.3 | 40.3 | 43.4 |
| > or = 60 | 19.4 | 24.1 | 30.9 |
| Total | 100.0 | 100.0 | 100.0 |

The Table 8.3 shows an indication of the health awareness among the population in different age groups.

8.3 Health insurance

The survey collected data from the individuals whether they are entitled to any kind of health insurance. Among the population about 11percent reported that they are entitled for a health insurance. Further information of those who are entitled to any kind of health insurance is discussed below.

- Among government / semi government sector employees, 69.2 percent is having a health insurance from their place of work.
- Among private sector employees (including those who are not having permanent employer), 5.3 percent is having a health insurance from their place of work.
- About 4 percent of Sri Lankan people are having a personal (their own) health insurance.

Annexures

Table A.1: Prevalence* of chronic illness by district

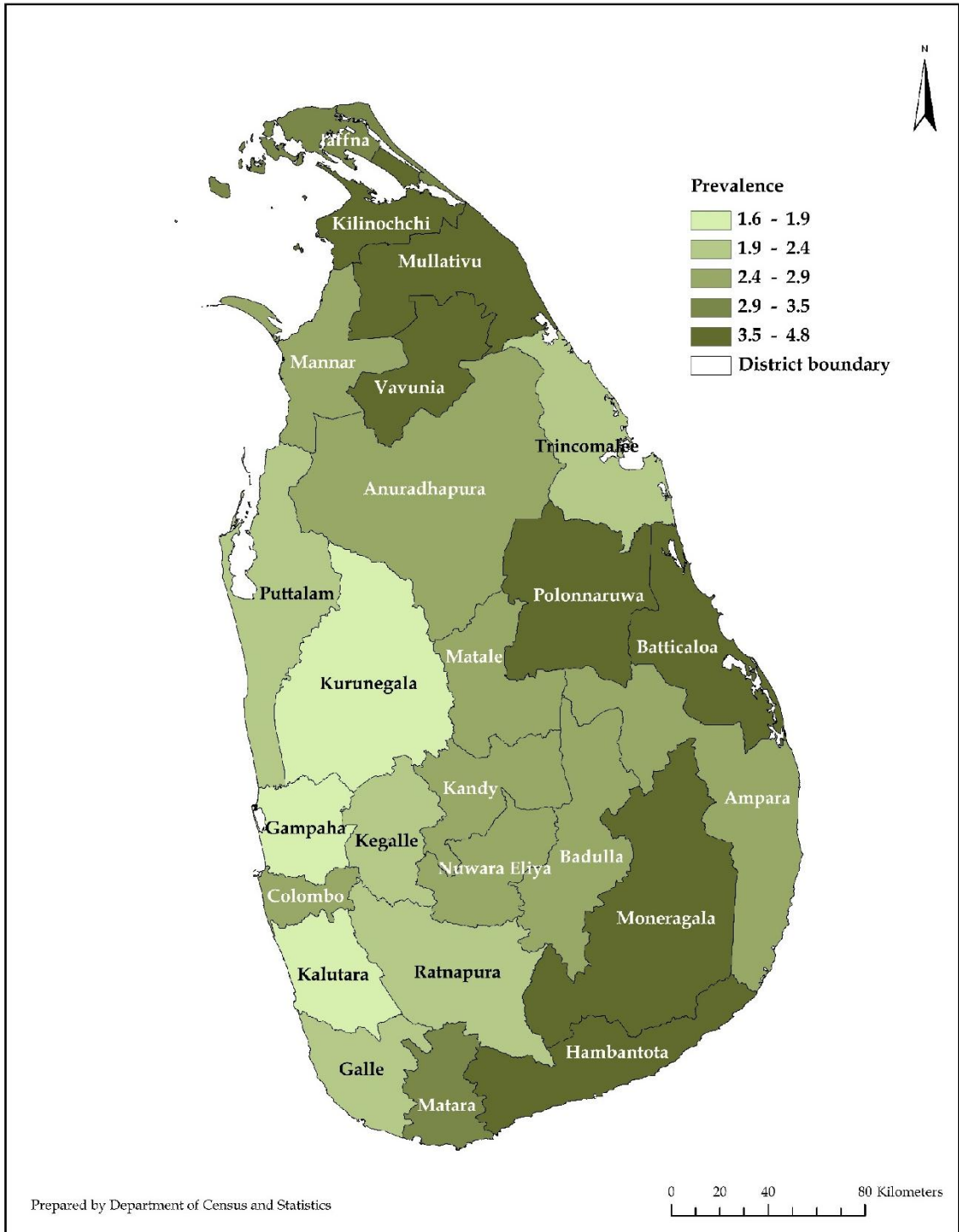
| District | Prevalence of Chronic illness to the total population | | | | |
|------------------|---|---------------------|---------------|-------------------|-------------|
| | Diabetes | High Blood Pressure | Heart illness | Stroke/ Paralyzed | Cancer |
| Colombo | 8.7 | 9.2 | 2.0 | 0.34 | 0.38 |
| Gampaha | 6.6 | 7.1 | 1.6 | 0.32 | 0.29 |
| Kalutara | 7.4 | 8.3 | 1.8 | 0.33 | 0.32 |
| Kandy | 5.1 | 7.8 | 2.2 | 0.29 | 0.25 |
| Matale | 3.9 | 7.2 | 1.2 | 0.24 | 0.25 |
| Nuwara Eliya | 2.1 | 4.7 | 1.5 | 0.39 | 0.09 |
| Galle | 4.8 | 5.9 | 1.1 | 0.28 | 0.24 |
| Matara | 4.1 | 6.2 | 1.6 | 0.25 | 0.32 |
| Hambantota | 3.8 | 6.4 | 1.7 | 0.40 | 0.26 |
| Jaffna | 6.4 | 7.4 | 2.0 | 0.33 | 0.28 |
| Mannar | 4.0 | 7.2 | 1.2 | 0.47 | 0.20 |
| Vavunia | 4.9 | 6.2 | 2.4 | 0.27 | 0.00 |
| Mullativu | 1.9 | 3.1 | 0.7 | 0.19 | 0.00 |
| Kilinochchi | 3.4 | 5.7 | 1.3 | 0.07 | 0.07 |
| Batticaloa | 3.8 | 5.0 | 1.2 | 0.51 | 0.19 |
| Ampara | 4.7 | 6.8 | 2.2 | 0.39 | 0.06 |
| Trincomalee | 3.8 | 4.8 | 1.6 | 0.21 | 0.13 |
| Kurunegala | 4.3 | 6.7 | 1.3 | 0.46 | 0.44 |
| Puttalam | 6.5 | 8.2 | 1.4 | 0.39 | 0.37 |
| Anuradhapura | 3.4 | 5.0 | 1.0 | 0.74 | 0.46 |
| Polonnaruwa | 6.1 | 8.1 | 2.3 | 0.25 | 0.30 |
| Badulla | 3.6 | 5.2 | 1.5 | 0.33 | 0.30 |
| Moneragala | 3.3 | 4.8 | 1.0 | 0.17 | 0.21 |
| Ratnapura | 3.8 | 5.8 | 1.0 | 0.41 | 0.18 |
| Kegalle | 6.6 | 8.2 | 2.1 | 0.58 | 0.45 |
| Sri Lanka | 5.4 | 6.9 | 1.6 | 0.37 | 0.30 |

* The prevalence calculated in this Table A.1 considered the total respective population without any restriction on age.

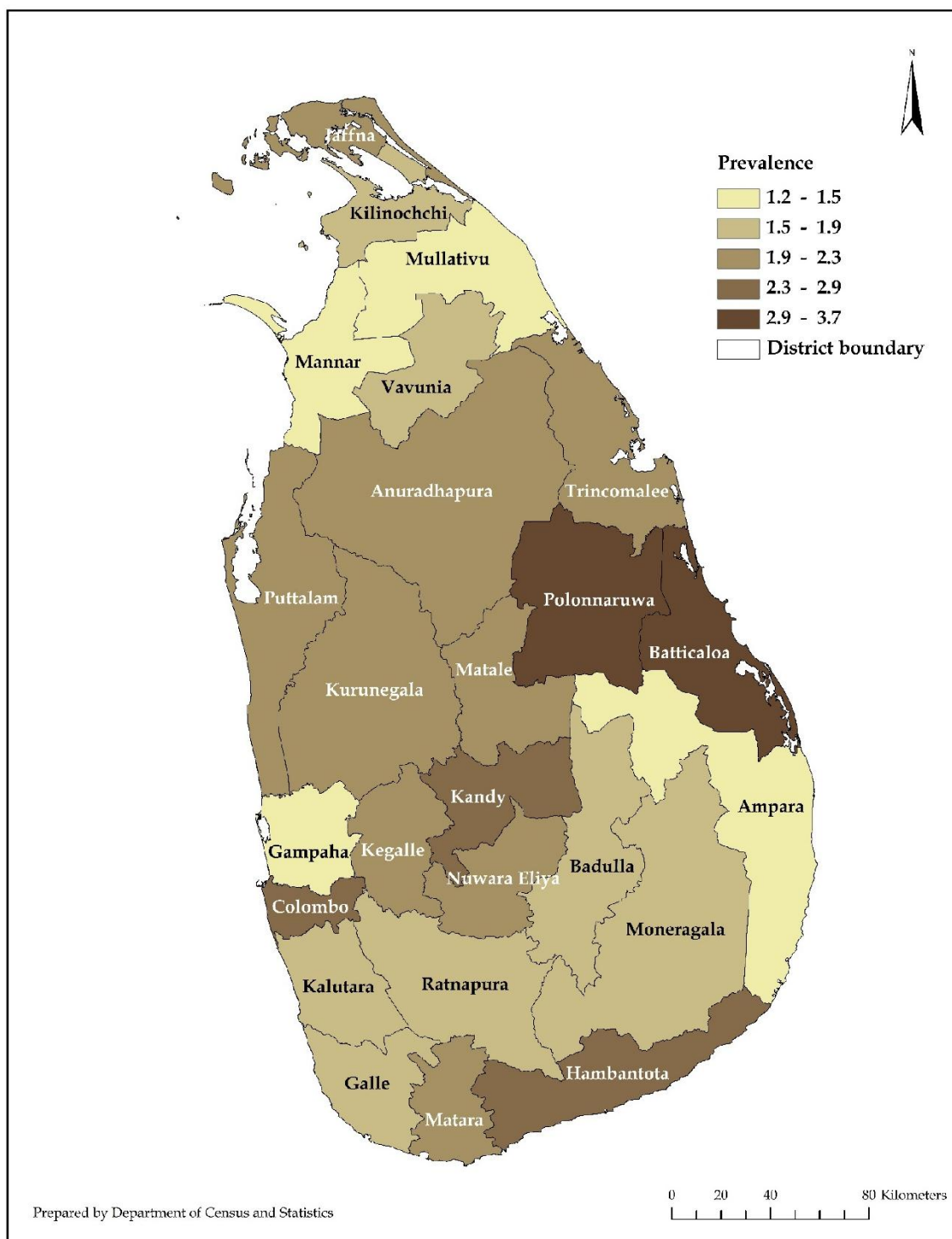
Table A.1: Contd.

| District | Prevalence of Chronic illness to the total population | | | | |
|------------------|---|----------------|------------|-------------|------------|
| | Asthma | Mental illness | Arthritis | Epilepsy | Other |
| Colombo | 2.4 | 0.44 | 2.6 | 0.21 | 3.4 |
| Gampaha | 1.6 | 0.62 | 1.5 | 0.28 | 2.2 |
| Kalutara | 1.8 | 0.70 | 1.6 | 0.47 | 2.9 |
| Kandy | 2.4 | 0.40 | 2.5 | 0.21 | 2.8 |
| Matale | 2.4 | 0.91 | 2.2 | 0.34 | 3.0 |
| Nuwara Eliya | 2.7 | 0.38 | 2.1 | 0.67 | 2.8 |
| Galle | 2.1 | 0.48 | 1.6 | 0.16 | 2.3 |
| Matara | 3.0 | 0.56 | 2.0 | 0.30 | 1.8 |
| Hambantota | 4.3 | 0.57 | 2.7 | 0.36 | 4.5 |
| Jaffna | 3.1 | 1.05 | 2.1 | 0.32 | 3.8 |
| Mannar | 2.5 | 0.38 | 1.4 | 0.57 | 4.5 |
| Vavunia | 4.6 | 0.41 | 1.8 | 0.17 | 4.2 |
| Mullativu | 4.0 | 0.43 | 1.2 | 0.77 | 4.7 |
| Kilinochchi | 4.0 | 0.97 | 1.9 | 0.38 | 0.9 |
| Batticaloa | 4.8 | 0.55 | 3.7 | 0.43 | 2.8 |
| Ampara | 2.7 | 0.47 | 1.2 | 0.32 | 2.6 |
| Trincomalee | 2.2 | 0.33 | 2.0 | 0.59 | 2.7 |
| Kurunegala | 1.7 | 0.67 | 2.2 | 0.10 | 3.4 |
| Puttalam | 2.1 | 0.23 | 2.3 | 0.34 | 1.8 |
| Anuradhapura | 2.9 | 0.50 | 2.1 | 0.15 | 3.7 |
| Polonnaruwa | 4.3 | 0.46 | 2.9 | 0.18 | 3.0 |
| Badulla | 2.7 | 0.31 | 1.7 | 0.40 | 3.0 |
| Moneragala | 3.5 | 0.60 | 1.6 | 0.33 | 3.8 |
| Ratnapura | 2.2 | 0.50 | 1.8 | 0.52 | 1.7 |
| Kegalle | 1.9 | 0.92 | 1.9 | 0.39 | 1.6 |
| Sri Lanka | 2.5 | 0.55 | 2.0 | 0.31 | 2.8 |

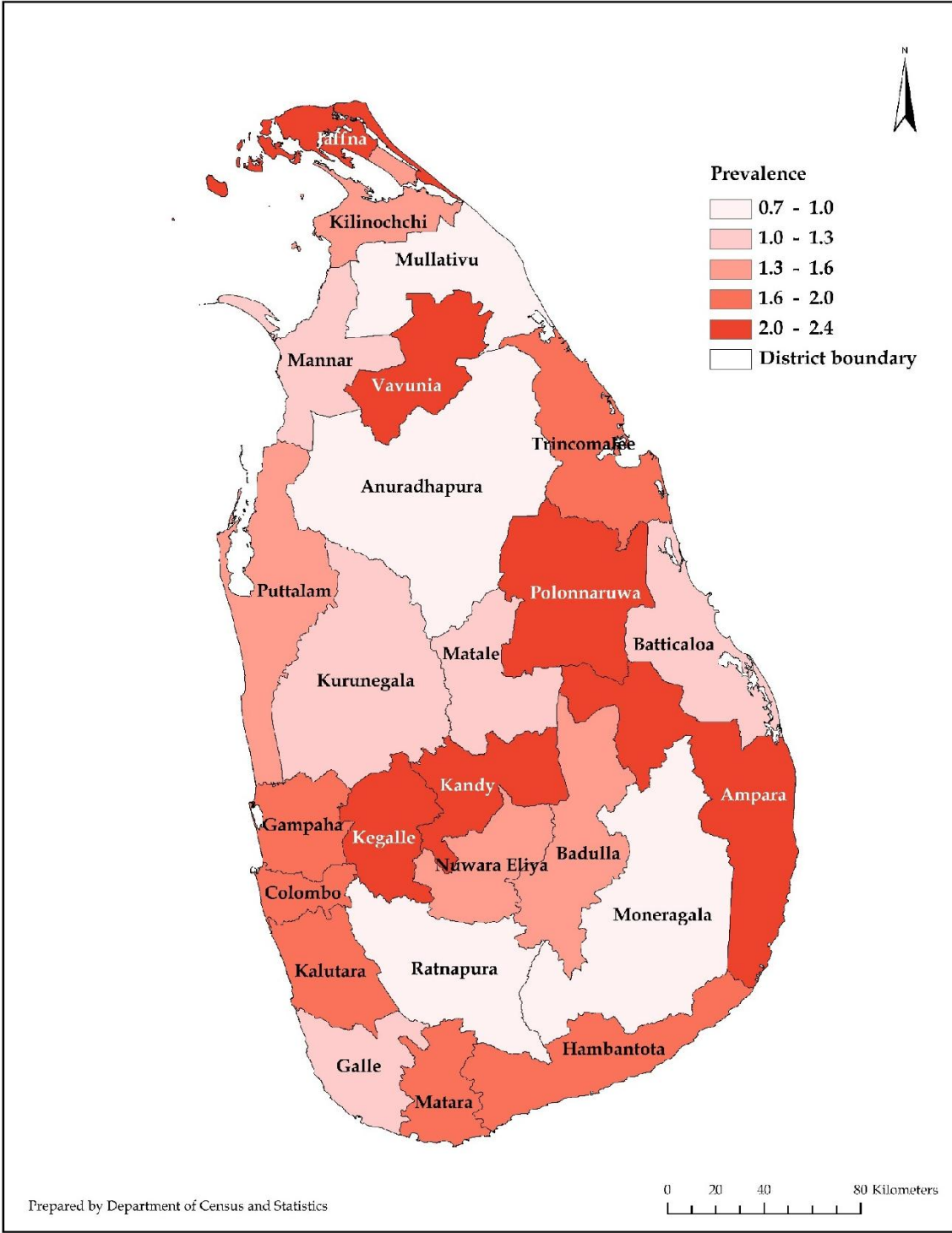
Map 4: Prevalence of Asthma by District



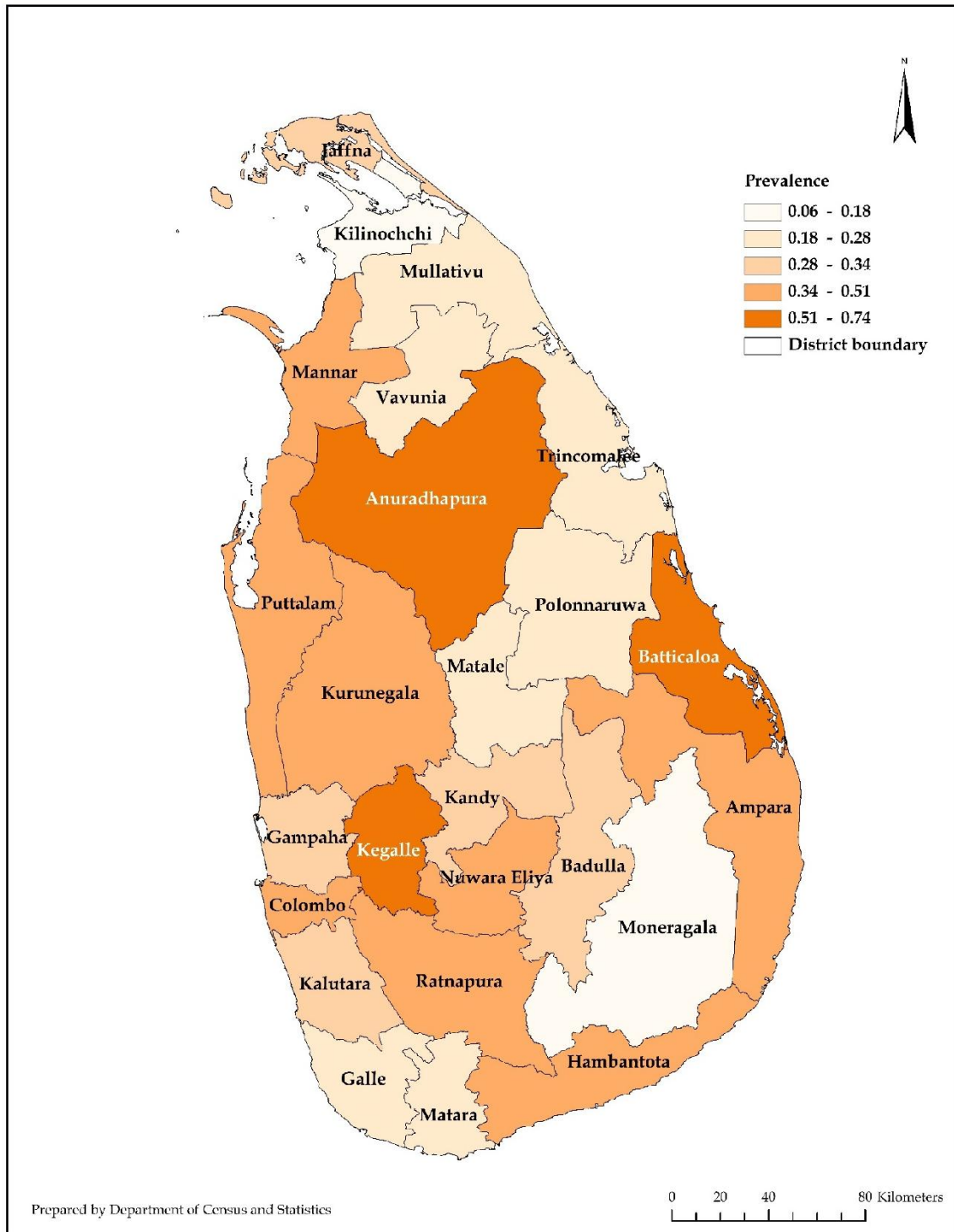
Map 5: Prevalence of Arthritis by District



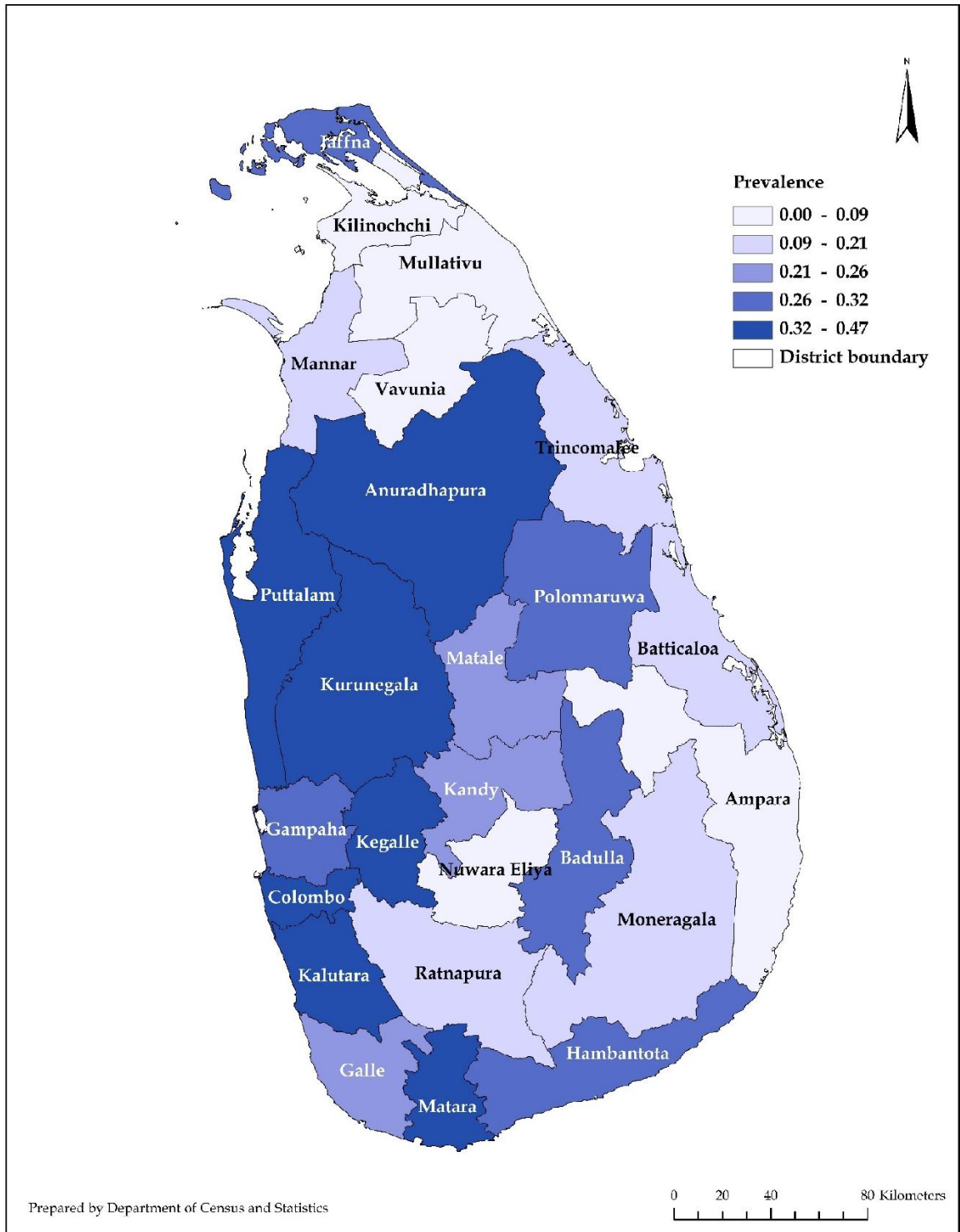
Map 6: Prevalence of Heart Diseases by District



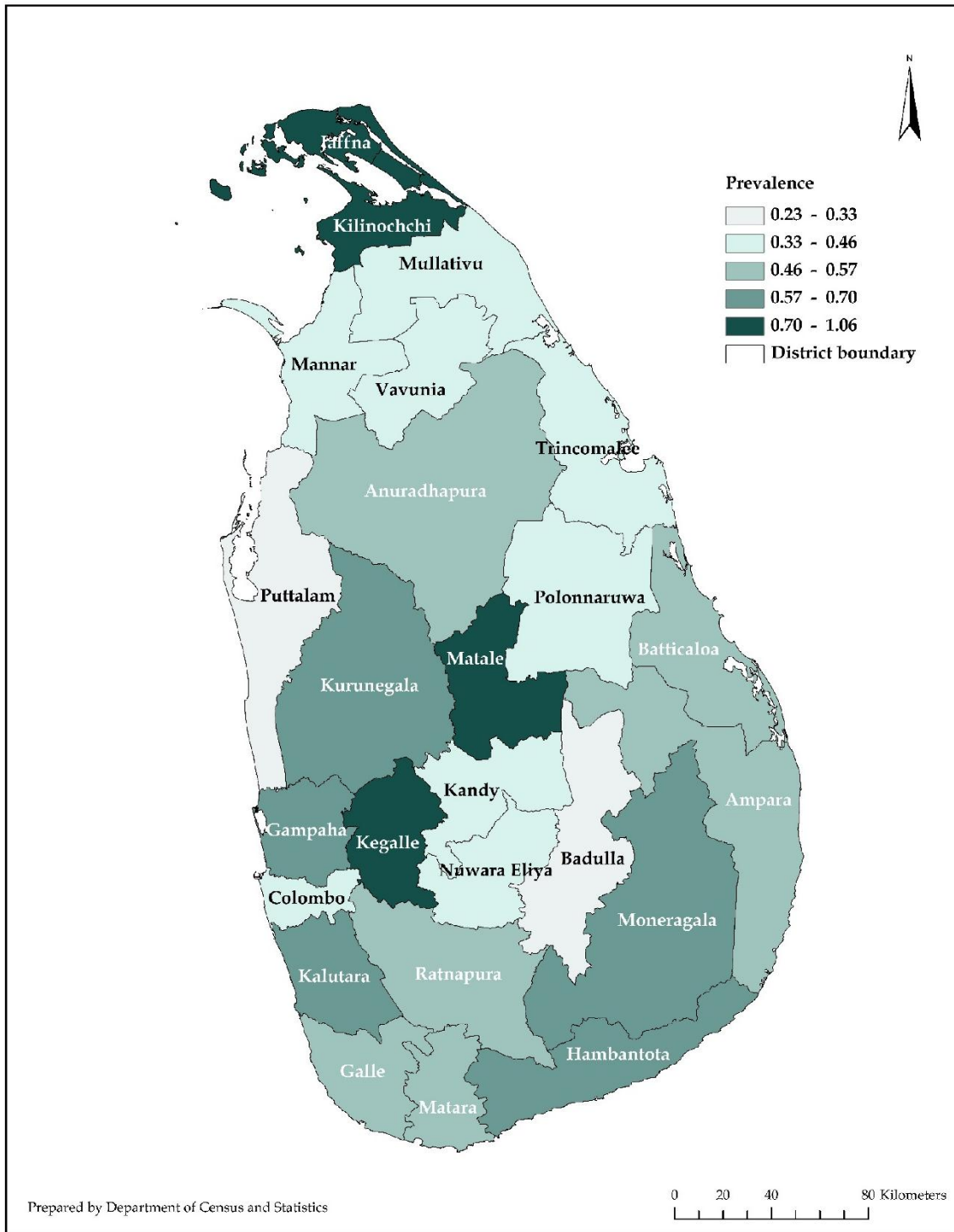
Map 7: Prevalence of Stroke/Paralyzed by District



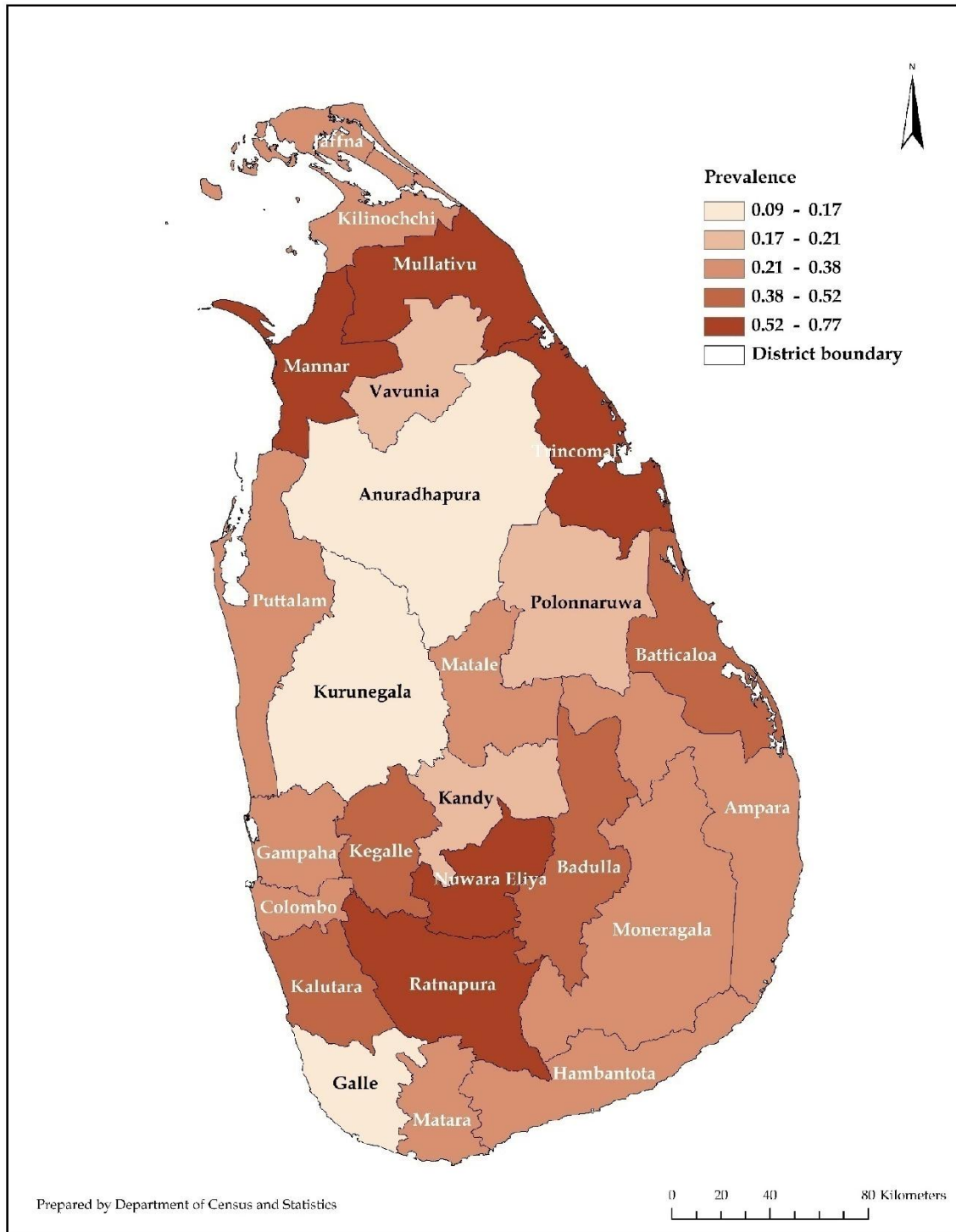
Map 8: Prevalence of Cancer by District



Map 9: Prevalence of Mental Illness by District



Map 10: Prevalence of Epilepsy by District



Map 11: Prevalence of Other Chronic Illnesses by District

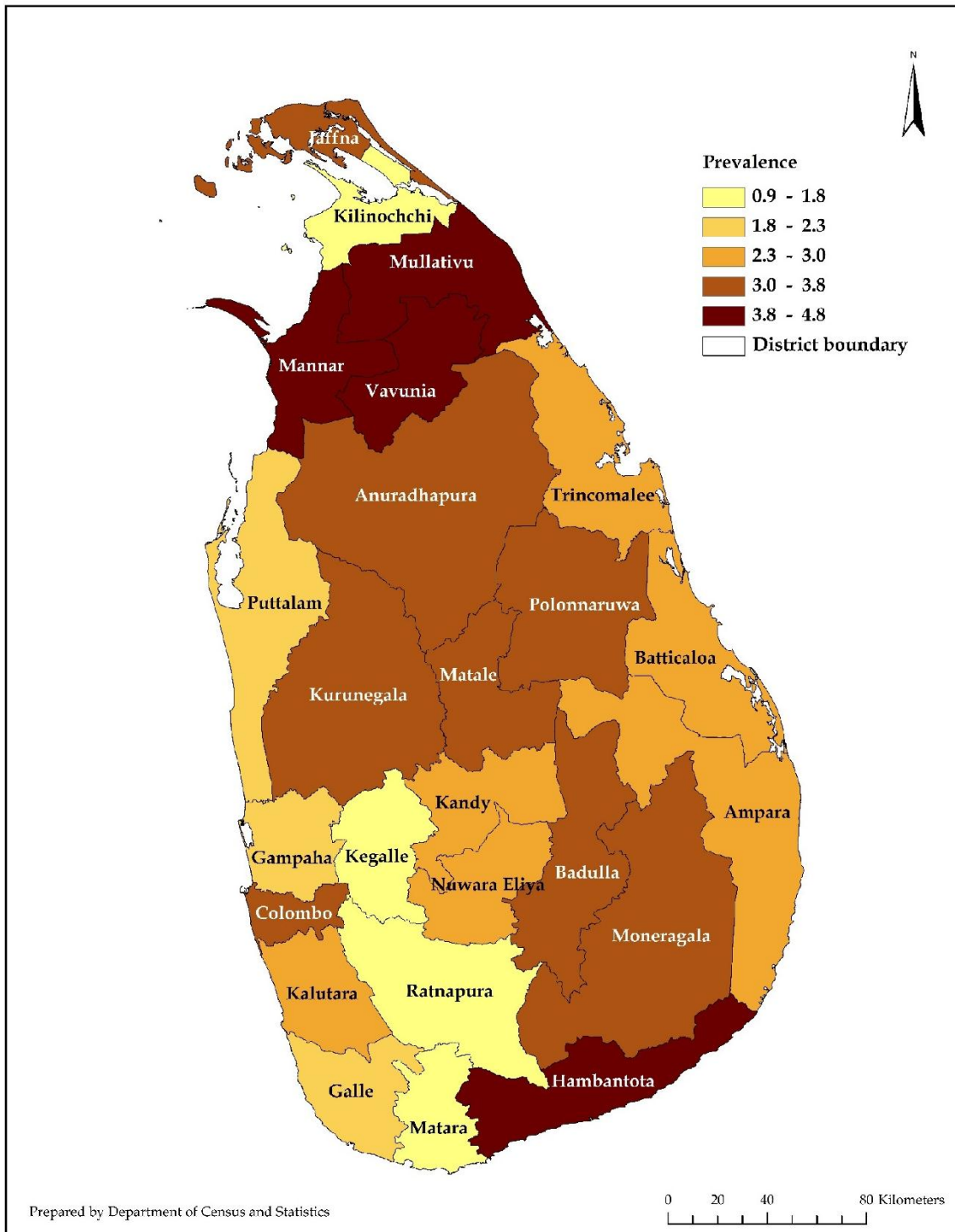


Table A.2: Prevalence of chronic illnesses by age group and gender

| Age group (years) | Diabetes | | | High Blood Pressure | | | Heart illness | | |
|-------------------|----------|--------|-------|---------------------|--------|-------|---------------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| < 17 | 0.03 | 0.04 | 0.04 | 0.02 | 0.09 | 0.06 | 0.19 | 0.22 | 0.20 |
| 18 - 24 | 0.08 | 0.11 | 0.10 | 0.13 | 0.23 | 0.18 | 0.16 | 0.13 | 0.15 |
| 25 - 34 | 0.81 | 0.88 | 0.85 | 0.44 | 0.68 | 0.57 | 0.30 | 0.23 | 0.26 |
| 35 - 44 | 3.40 | 3.61 | 3.51 | 2.06 | 4.09 | 3.15 | 0.87 | 1.08 | 0.98 |
| 45 - 54 | 9.09 | 10.57 | 9.87 | 8.06 | 12.84 | 10.59 | 2.66 | 1.77 | 2.19 |
| 55 - 64 | 15.00 | 17.72 | 16.45 | 15.55 | 23.13 | 19.59 | 5.19 | 4.14 | 4.63 |
| > 65 | 17.57 | 18.53 | 18.10 | 25.71 | 34.14 | 30.42 | 7.00 | 5.37 | 6.09 |
| Total | 4.88 | 5.88 | 5.40 | 5.30 | 8.41 | 6.93 | 1.74 | 1.49 | 1.61 |

Table A.2 Contd.

| Age group (years) | Stroke/ Paralyzed | | | Cancer | | | Asthma | | |
|-------------------|-------------------|--------|-------|--------|--------|-------|--------|--------|-------|
| | Male | Female | Total | Male | Female | Total | Male | Female | Total |
| < 17 | 0.02 | 0.01 | 0.01 | 0.05 | 0.03 | 0.04 | 1.54 | 1.22 | 1.39 |
| 18 - 24 | 0.05 | 0.09 | 0.07 | 0.03 | 0.10 | 0.06 | 0.87 | 0.88 | 0.87 |
| 25 - 34 | 0.02 | 0.07 | 0.04 | 0.07 | 0.11 | 0.09 | 1.11 | 1.41 | 1.27 |
| 35 - 44 | 0.15 | 0.08 | 0.11 | 0.17 | 0.30 | 0.24 | 1.55 | 2.58 | 2.10 |
| 45 - 54 | 0.35 | 0.33 | 0.34 | 0.27 | 0.58 | 0.44 | 2.51 | 3.52 | 3.05 |
| 55 - 64 | 1.08 | 0.43 | 0.73 | 0.49 | 0.90 | 0.71 | 4.25 | 4.50 | 4.38 |
| > 65 | 2.79 | 1.75 | 2.21 | 0.91 | 1.17 | 1.06 | 7.61 | 5.80 | 6.60 |
| Total | 0.44 | 0.30 | 0.37 | 0.22 | 0.37 | 0.30 | 2.37 | 2.53 | 2.45 |

Table A.2 Contd.

| Age group (years) | Mental illness | | | Arthritis | | |
|-------------------|----------------|--------|-------|-----------|--------|-------|
| | Male | Female | Total | Male | Female | Total |
| < 17 | 0.17 | 0.14 | 0.15 | 0.04 | 0.04 | 0.04 |
| 18 - 24 | 0.25 | 0.37 | 0.31 | 0.26 | 0.22 | 0.24 |
| 25 - 34 | 0.83 | 0.33 | 0.56 | 0.33 | 0.33 | 0.33 |
| 35 - 44 | 0.70 | 0.75 | 0.73 | 0.52 | 1.32 | 0.95 |
| 45 - 54 | 0.94 | 0.76 | 0.84 | 1.39 | 4.49 | 3.03 |
| 55 - 64 | 0.98 | 0.88 | 0.93 | 3.38 | 7.25 | 5.44 |
| > 65 | 0.89 | 0.99 | 0.95 | 6.72 | 10.57 | 8.87 |
| Total | 0.58 | 0.52 | 0.55 | 1.28 | 2.73 | 2.04 |