

The prevalence of disability in Aruba



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INTRODUCTION

Persons with disabilities often belong to the most vulnerable groups in society. Compared to the general population, they are at greater risk of experiencing limitations in performing activities of daily living and/or experiencing restrictions of participation in society. To be able to ensure full and equal participation of persons with disabilities on all levels of daily functioning, relevant, reliable, and timely data is needed. Therefore, following the most recent recommendations of the United Nations¹, the Short Set of Questions on Disability was included in the 2010 Census questionnaire. The data collected by means of these questions will be discussed in this paper.

WHAT IS DISABILITY?

Disability is a complex, multidimensional, and continuously evolving concept. With the adoption of the International Classification of Functioning, Disability and Health (ICF) as the conceptual framework for understanding, measuring, and formulation of policies on issues regarding health and disability², a new approach to disability was introduced. Disability is currently viewed as being an umbrella term for impairments, activity limitations, and participation restrictions, with a special focus on the interaction between a person (with a health condition) and contextual factors (environmental and personal). Disability is no longer viewed as being solely an attribute of a person, but an interaction between a person with limitations and attitudinal and environmental factors that hinder that person's full and equal participation in society². Stressing the importance of the environment in the overall experience and the extent of a disability has important implications for policy making, planning, legislation, and capacity building. By changing the physical and social environment, health conditions can be improved, impairments can be prevented and the overall wellbeing of persons with disabilities can be safeguarded. This shift in understanding and approaching disability resulted in the adoption of the United Nations *Convention on the Rights of Persons with Disabilities* (CRPD)³. This new approach underscores the need to see disability as a human rights issue.

WHY MEASURING DISABILITY IN A CENSUS?

In a Population and Housing Census, key issues are measured relating to demographic, economic, and social characteristics of individuals inhabiting a country or a well-delimited part of a country. Measuring disability in a Census serves four major purposes as described by the United Nations (UN) in the most recent publication of the Principles and Recommendations for Population and Housing Censuses (Revision 2, 2008, page 180)¹:

- a) To provide services, including the development of specific programs and
- b) policies for service provision and the evaluation of these programs and services.

- c) To monitor the level of functioning in the population.
- d) To assess equalization of opportunities.

THE SHORT SET OF QUESTIONS ON DISABILITY

Despite the importance of gathering data on disability, there is still a lack of internationally comparable data. Therefore, for the purpose of the 2010 Aruba Census, the Central Bureau of Statistics followed the most recent recommendations of the UN regarding the method to be used to assess disability in a population. As such, the *Short Set of Questions on Disability*, developed by the Washington Group on Disability Statistics, was included in the 2010 Census questionnaire^{4,5}. The Washington Group on Disability Statistics is an international, consultative group of experts set up by the United Nations Statistical Commission in 2001 to standardize the measurement of disability and facilitate comparisons of data on disability at an international level. The Short Set of Questions on Disability was developed for the use in censuses and surveys based on the Fundamental Principles of Official Statistics⁶ and was developed using the ICF as a conceptual framework.

The Short Set of Questions on Disability asks about difficulties individuals experience in performing certain activities, because of a health problem. The questions included cover six domains of functioning: seeing, hearing, mobility, cognition, self-care and communication. Individuals are asked to report, for each domain separately, the degree of difficulty they experience on a four-point scale ranging from no difficulty to being unable to perform the activity. Individuals reporting, on at least one domain of functioning, having a lot of difficulties performing an activity or being unable to perform an activity, are considered to have a disability⁵.

When including the Short Set of Questions on Disability in the 2010 Questionnaire, an age limit was set for questions on mobility, cognition, self-care and communication. After careful consideration and following the recommendations of the Washington Group on Disability Statistics, these questions were only asked to persons 5 years and older. Questions on difficulties seeing and hearing were asked to persons of all ages.

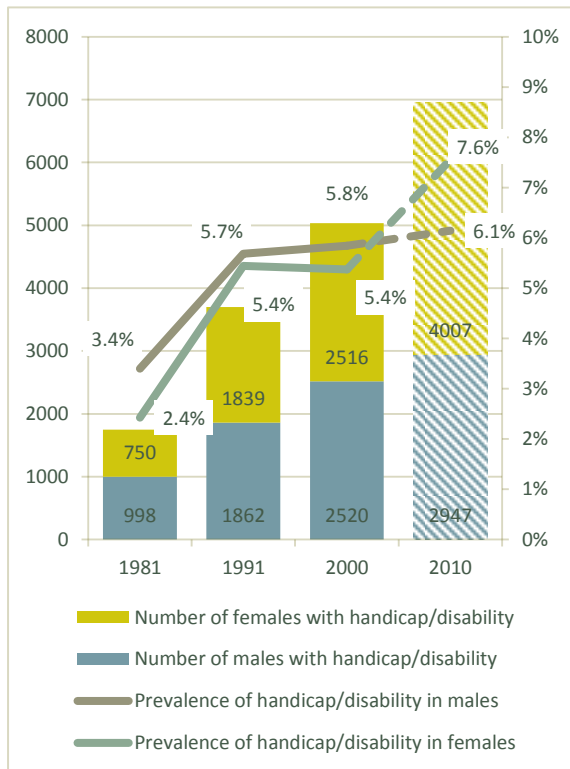
THE PREVALENCE OF DISABILITY

HOW MANY ARE AFFECTED?

During the 2010 Aruba Census, a total of 6,955 individuals reported having a disability on at least one domain of functioning as measured by the Short Set of Questions on Disability, representing 6.9 percent of the population of Aruba. Relative to the year 2000, in 2010 there were 1,918 more persons with disability, constituting a growth of 38.1 percent over a 10 year period, which is substantially larger than the growth of the population of Aruba over the same period of time (12.1 percent).

Furthermore, for the first since 1981, when a question on handicap was first included in the Census, more females than males reported having a disability, 4007 females (7.6 percent) compared to 2947 males (6.1 percent). Compared to the year 2000, the number of females with disability grew with 59.3 percent, compared to a growth of only 16.9 percent in males (see Figure 1).

Figure 1: The frequency and prevalence of handicap (1981-2000) and disability (2010) and disability (2010)



However, when interpreting these results, it is important to keep in mind that given that the Short Set of Questions on Disability was included for the first time in the 2010 Census questionnaire, comparisons over time using data obtained from previous Censuses can be flawed. In previous Censuses an ‘impairment’ approach was used to

measure disability instead of the current ‘difficulties in functioning’ approach. These conceptual differences notwithstanding, data analyses conducted in an earlier paper revealed that data obtained by means of the Short Set of Questions on Disability showed marked similarities with data obtained by means of previously used questions on ‘handicap’, as if similar concepts were measured⁷. These findings provide support for making comparisons over time using data from previous Censuses given the necessary caution is exercised when interpreting the results.

Comparisons on an international level are also hindered by differences in conceptual framework and method used to assess disability. Publication of the results of the 2010 round of Censuses should provide comparable data, given that many countries have endorsed the new approach to understanding and measuring disability as recommended by the UN¹. According to the most recent estimates of the WHO which are based on 2010 population estimates and disability prevalence estimates, in 2010, 15 percent of the world population (over one billion individuals) was living with a disability².

WHO ARE AFFECTED?

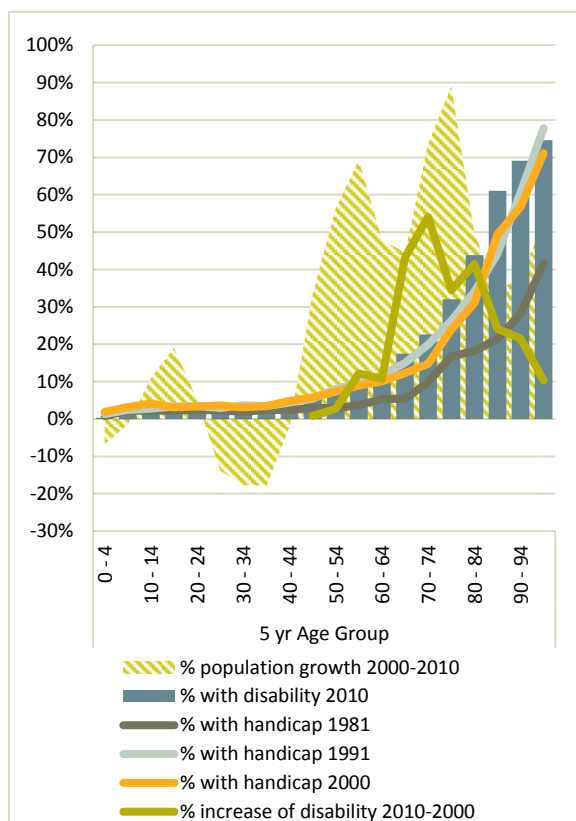
Disability can affect everyone. Men and women of all ages are at risk of experiencing difficulties in functioning at some point in their life. However, some are at greater risk of experiencing disability than others. Factors such as age, sex, socioeconomic status, health status (c.q. the presence of chronic health conditions), exposure to environmental risks factors, availability of resources, and culture, play an important role in the prevalence and extent of disability. Most affected by disability are women, individuals living in low-income countries and the elderly. The latter in particular are disproportionately represented in disability populations because of the accumulation of health risks they acquired during their lifespan (World Report on Disability, 2011, p.35)².

Disability and age

In Aruba, data gathered by means of the 2010 Census indicated that age played indeed a significant role in the prevalence of disability. Firstly, persons with disability were, on average, much older than persons without disability (mean age=58 years, and mean age=35 years, respectively). Secondly, the prevalence of disability increased almost exponentially with increasing age. Between ages 60 and 64, when most employed persons in Aruba retire from work, 11.1 percent reported having a disability. In persons ten years older (between ages 70 and 74), the prevalence of disability doubled to 22.6 percent. Between ages 85 and 89, more than half of all persons (61.1%)

reported having a disability in at least one domain of functioning (see Figure 2).

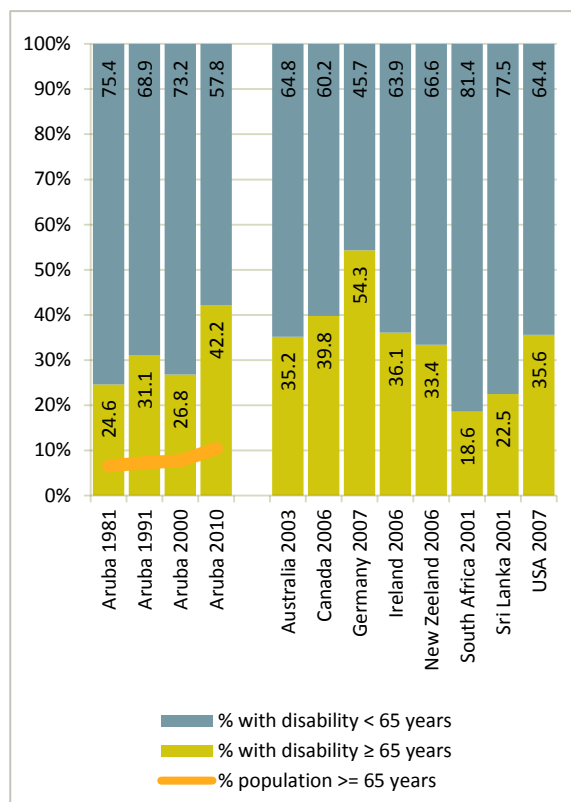
Figure 2: The prevalence of handicap (1981-2000) and disability (2010) by age group



In addition, compared to data obtained from previous Censuses, 2010 Census data revealed a substantial increase in the prevalence of disability in the elderly. Relative to the year 2000, the prevalence of disability in persons 65 years and older increased with 37.6 percent from a prevalence of 20.4 percent in 2000 to a prevalence of 28.0 percent in 2010. Most interesting is the particularly large increase in the prevalence of disability observed in persons ages 70 to 74 years, where it increased with 54.1 percent relative to the year 2000. Persons in this age category also represent the second fastest growing age cohort in Aruba.

Furthermore, in accordance with international literature, Census data (1981-2010) showed consistently that the elderly in Aruba are overrepresented in disability populations. Whilst between 1981 and 2010, the proportion of persons 65 years and older in the population grew from 6.5 percent (1981) to 10.4 percent (2010), persons in this age category accounted for 24.6 percent (1981) up to 42.2 percent (2010) of the total number of persons with handicap/disability (see Figure 3). Compared to other countries, only in Germany where the population is ageing at an alarming rate⁸, the contribution of persons 65 years and older is larger than that in Aruba (see Figure 3).

Figure 3: Distribution of ages within disability populations (World Report on Disability, 2011, p.35, fig. 2.3)



Thus, taking into account the rapidly ageing population of Aruba⁹ and the relatively high prevalence of disability in the elderly, serious challenges to the provision of (health) care and support for the elderly and their primary caregivers lie in waiting.

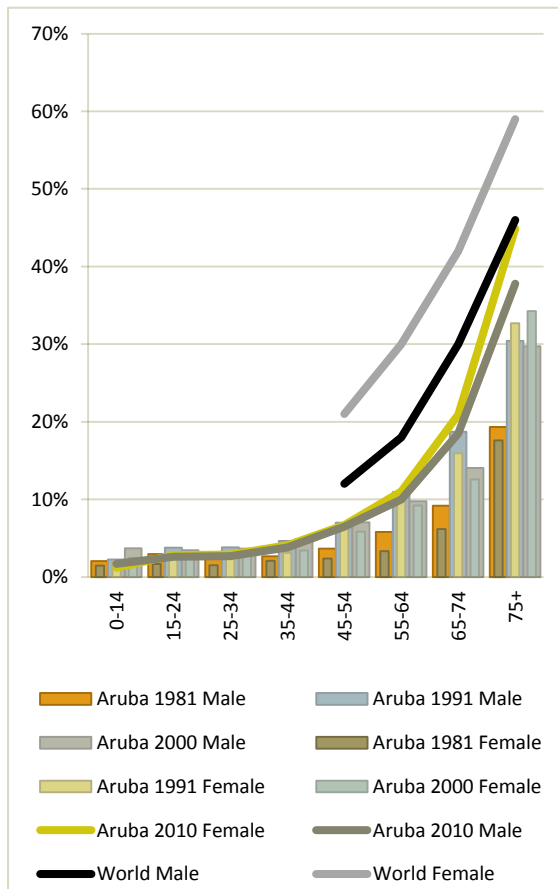
Disability and sex

Where the role of sex in the prevalence of disability was concerned, Census data collected over the past three decades show a different picture than would be expected given global trends. Whilst worldwide, females are most affected by disability¹⁰, in Aruba, the prevalence of handicap/disability in females has, for decades, been very similar to that in males (see Figure 4). In this respect it is important to mention that this difference could be partly explained by the fact that in Aruba, unlike in some other (less-developed) countries, males and females have equal access to the health care system, educational system, social security system, and so forth, promoting equal opportunities for men and women to maintaining good health, preventing disease and treating communicable and non-communicable health conditions.

However, over time, some important changes have taken place in Aruba where the prevalence of handicap/disability in females is concerned. While in

1981, the prevalence of handicap in females was lower than that in males in all age categories, in 1991 and in 2000, the prevalence of handicap in elderly females (aged 75 years and older) was higher than that in elderly males. Subsequently, in 2010, the prevalence of disability in females surpassed that in males, not only in the elderly, but from adolescence on (age 15 years and older; see Figure 4). An explanation for these developments is not readily available. Differences in methodology used to assess difficulties in functioning versus handicap can be offered as an explanation for the changes observed. Females could be more willing to report difficulties in functioning, as assessed during the 2010 Census, rather than handicaps, as assessed in previous Censuses (1981, 1991, and 2000). On the other hand, the willingness to report difficulties in functioning, whether referred to as disabilities or handicaps, could have changed over time as a result of more openness and less feelings of shame and guilt that accompanied the reporting of difficulties in functioning in the past.

Figure 4: The prevalence of handicap and disability in males and females in Aruba (1981-2010) compared to global figures (World Health Survey, 202-2004)⁹



Overall, the data obtained by means of the 2010 Aruba Census was more in line with global figures obtained by means of the World Health Survey,

except that the prevalence of disability in both males and females in the 59 countries investigated was much higher than in Aruba. These differences could be attributed to different factors, including differences in the methodology used to assess disability. For example, the measure used to assess disability in the World Health Survey covered a broader set of domains of functioning (affect, cognition, interpersonal relationships, mobility, pain, sleep, energy, self-care and vision) than did the Short Set of Questions on Disability (vision, hearing, mobility, cognition, self-care, and communication) which was included in the 2010 Census. The main difference between these two instruments is the purpose for which they were developed. The Short Set of Questions on Disability was developed as a short general measure of disability suitable for censuses and national surveys. Its main purpose is to provide basic and necessary information on disability and identify individuals at greater risk than the general population of experiencing inequalities in opportunities due to difficulties they experience in key domains of functioning. Thus, the main purpose of the instrument is not to identify all persons with difficulties in functioning, but to provide a sampling frame on which indepth surveys on disability in the population could be based. On the other hand, screening instruments like the one used during the World Health Survey were developed to be as inclusive as possible by using a broad approach to measuring and identifying disability. By using this approach, different aspects of disability can be studied more in depth, however risking the inclusion of a larger number of false positives in the sample.

However, even when using the same methodology, differences in the cut off points used to determine whether a person is disabled can render very different prevalence rates. The Short Set of Questions on Disability included in the 2010 Census questionnaire uses a simple scoring method. As described on page 5 of this paper, persons who reported, on at least one domain of functioning, having a lot of difficulty performing an activity or being unable to perform that activity, were categorized as being disabled. On the other hand, the questions on disability included in the World Health Survey had a broader range of possible answers: no difficulty, mild difficulty, moderate difficulty, severe difficulty, and extreme difficulty, after which the responses were coded to a composite disability score ranging from 0 to 100. Persons scoring 40 or more on this composite score were categorized as experiencing significant difficulties and those scoring 50 or more were categorized as persons experiencing very significant difficulties. The different cut off points used could very possible account for the differences observed in the prevalence rates of disability. Thus, when comparing 2010 Aruba Census data to data gathered by means of the global figures

obtained by means of the World Health Survey, a lot of caution must be exercised.

Disability and country of birth

Migration has historically played a significant role in the composition of the population of Aruba. At times of economic growth, migration has provided the local market with new laborers¹¹. Because of migration, the population of Aruba is very heterogeneous in nature. According to the 2010 Census, the population of Aruba consists of persons from 133 different countries, and 92 different nationalities¹². In total, 34 percent of the population of Aruba consists of persons born elsewhere¹². Thus, when analysing data on disability in Aruba it is important to investigate whether the prevalence of disability in persons born in Aruba differs from that in persons born elsewhere. Moreover, given that research has indicated that persons from low-income countries are more affected by disability², it is important to investigate whether the prevalence of disability in migrants born in low-income countries differs from that in migrants born in higher-income countries.

According to 2010 Census data, the prevalence of disability in persons born in Aruba differed in important ways from that in persons born elsewhere. Firstly, the prevalence of disability in both males and females born in Aruba was higher than that in males and females born elsewhere. Secondly, these differences were more prominent in the population of working age, where 6.6 percent of persons born in Aruba reported having a disability on at least one domain of functioning, compared to only 3.6 percent of persons born elsewhere (see Table 1).

Table 1: The prevalence of disability (in percentages) by country of birth and sex

Country of birth	Males	Females	Both sexes
Aruba	7.0	8.2	7.6
0-14 years	1.6	1.1	1.4
15-64 years	6.5	6.7	6.6
65+ years	26.0	30.3	28.4
Other	4.3	6.5	5.5
0-14 years	2.1	2.0	2.0
15-64 years	2.9	4.1	3.6
65+ years	21.8	30.4	27.0

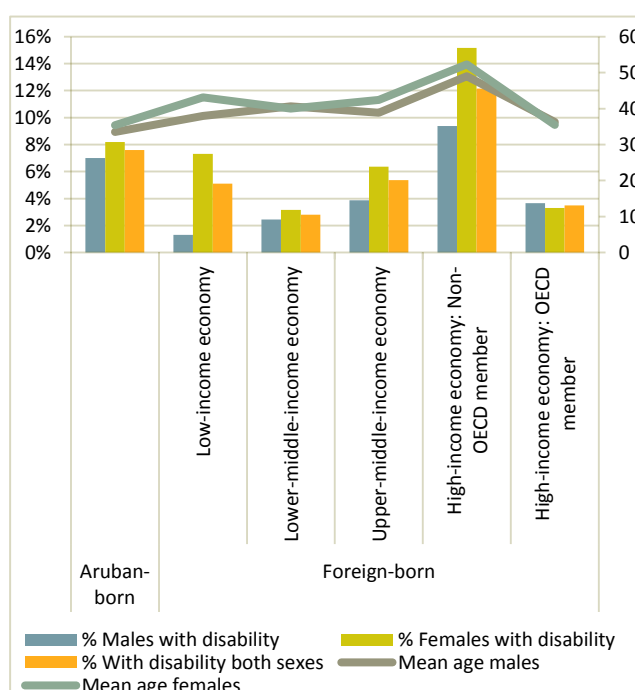
At first glance, these results point to an apparent worse state of health of persons born in Aruba, and certainly of those of working age, when compared to persons born elsewhere. However when interpreting the results depicted in Table 1, two important issues should be kept in mind. Firstly, given limited possibilities offered to young adults to further their studies beyond secondary education in Aruba, every year some 400 young adults leave Aruba to further their studies elsewhere, mostly in the Netherlands¹³.

Of these well-educated and probably physically fit young adults, only a fraction return to Aruba after having completed their studies, leaving behind a gap in the population of working age born in Aruba. This gap is then filled by (young) physically fit adults who migrate to Aruba in search of a job, and who are willing and able to take on any job offered to them. These developments that have contributed to the composition of the working age population of Aruba in the last decades, could have created a bias that comes to light when comparing the disability status of persons born in Aruba relative to persons born elsewhere.

However, as stated earlier, it could prove useful to investigate whether there are differences in the prevalence of disability within the foreign-born population, with empirical data obtained from international research pointing to a possible higher prevalence of disability in persons born in low-income countries². Analyses of 2010 Census data revealed however a completely different picture.

When classifying the country of birth of migrants according to the World Bank list of economies¹⁴, the results revealed a lower prevalence of disability in persons born in low-income countries relative to that in persons born in Aruba, and in other high-income non-OECD countries. The prevalence of disability in males born in low-income countries, in particular, was lower than in males and females born in all other higher-income countries. The highest prevalence of disability was found in males and females born in high-income non-OECD countries (see Figure 5).

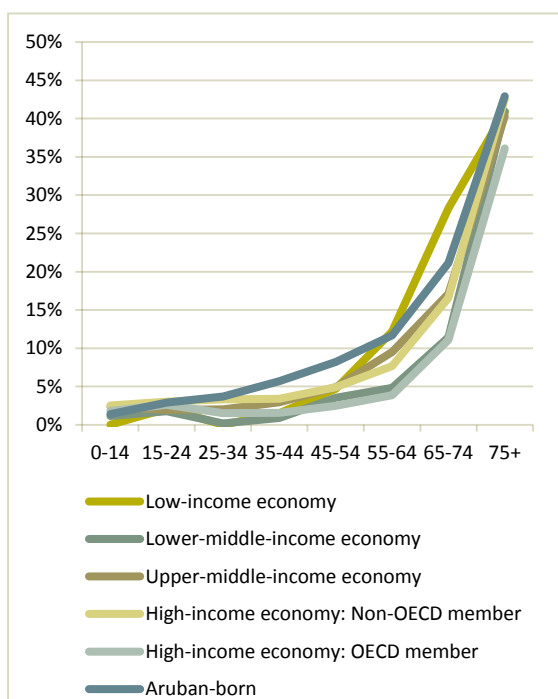
Figure 5: The prevalence of disability and the mean age of migrants by sex and by level of economy of their country of birth



One possible explanation for these unexpected findings could be the effect of age on the prevalence of disability. Persons born in high-income non-OECD countries, where the prevalence of disability was shown to be highest, were also on average older than persons born elsewhere (see Figure 5). When comparing the prevalence of disability per age group and per level of economy of the country of birth, the results showed that, as expected, the prevalence of disability in the population of working age (between 15 and 64 years of age) was higher in persons born in Aruba than those born elsewhere (see Figure 6). Furthermore, the prevalence of disability in persons born in low-income countries was shown to be higher than that in higher-income countries but only in persons 65 years or older. The latter could be the result of a life of hardship and hard work that leaves a distinctive mark on the overall health and well-being of elderly persons born in low-income countries.

In conclusion, when describing the characteristics of persons with disability in Aruba, it is important to include in the description key factors that are intrinsically related to the prevalence of disability, such as age, sex, and country of birth. Analysing the contributions of these factors to the prevalence of disability in Aruba revealed that those most affected by disability are the elderly, women and persons born in Aruba. More in-depth studies should focus on the reasons why these groups are most affected by disability and on how to prevent these groups from being more affected by disability than others.

Figure 6: The prevalence of disability by age category, and level of economy of the country of birth



IN WHAT MANNER ARE THEY AFFECTED?

The Short Set of Questions on Disability was designed to assess the most commonly occurring limitations in basic actions that have the potential to limit independent participation in society. Hence it includes questions on six domains of functioning: seeing, hearing, mobility, cognition, self-care and communication.

During the 2010 Aruba Census disabilities were most often reported in the visual domain of functioning by both males and females, followed by disabilities in mobility (see Table 2). The opposite was observed during the 2000 Census, where motor handicap was the most prevalent type of handicap, followed by visual handicap. Relative to the year 2000, the number of persons reporting a disability in the visual, auditory and motor domains of functioning, seem to have increased substantially. However, given conceptual differences in the measurement of disability, the differences observed could be a reflection of the different methodologies used to assess disability during the 2000 Census relative to the 2010 Census. As mentioned earlier, persons could have been more eager to report difficulties in functioning as assessed during the 2010 Census, compared to ‘handicaps’ as assessed during the 2000 Census.

Table 2: Number of persons with disability by domain of functioning, 2000-2010

Domain of functioning	Number of persons with disability*		Prevalence of disability (%)*	
	Males	Females	Males	Females
2010 Census				
Seeing	1242	1852	2.8	3.7
Hearing	660	635	1.5	1.3
Mobility	1061	1867	2.2	3.5
Cognition	638	809	1.3	1.5
Self-care	424	623	0.9	1.2
Communication	547	521	1.1	1.0
2000 Census				
Visual handicap	467	561	1.2	1.3
Auditory handicap	356	319	0.9	0.7
Motor handicap	721	785	1.8	1.8

*Note: Numbers and percentages are provided for persons five years and older

Differences in methodology notwithstanding, it is important to acknowledge the relatively high prevalence of disabilities seeing and moving in the population of Aruba and its impact on the lives of a substantial (and possibly increasing) number of individuals. Factors contributing to difficulties seeing

and moving are, unfortunately, commonly present in the population of Aruba. Risk factors contributing to, for example, cataracts, which are globally the leading causes of visual impairments², include: diabetes, drinking excessive amounts of alcohol, excessive exposure to sunlight, high blood pressure, and obesity¹⁵. These risk factors have been shown to be present in a substantial section of the adult population of Aruba as are risk factors contributing to the development of problems with mobility, such as overweight and obesity¹⁵.

Data collected during the 2010 Census showed furthermore that, as age increased, disabilities in mobility and self-care became more prominent, becoming the first and second most prevalent type of disability in persons 70 years and older, and in persons 80 years and older, respectively (see Figure 7). Furthermore, with increasing age, the number of functional domains on which persons reported having a disability, increased as well (see Figure 8). While the majority of persons with disability (67.8 percent) reported a disability on only one domain of functioning, the prevalence of disabilities on more than one functional domain increased steeply after persons reached the age of 60.

Figure 7: The prevalence of disability by domain of functioning and age

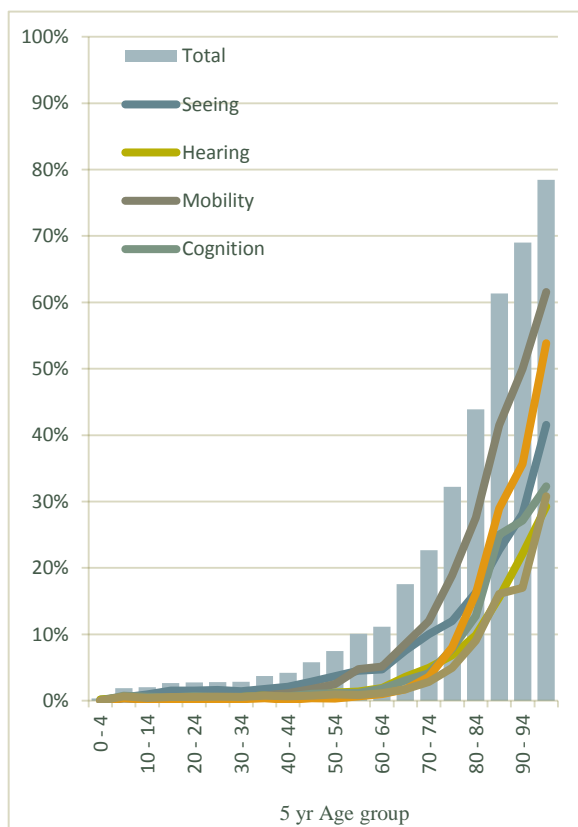
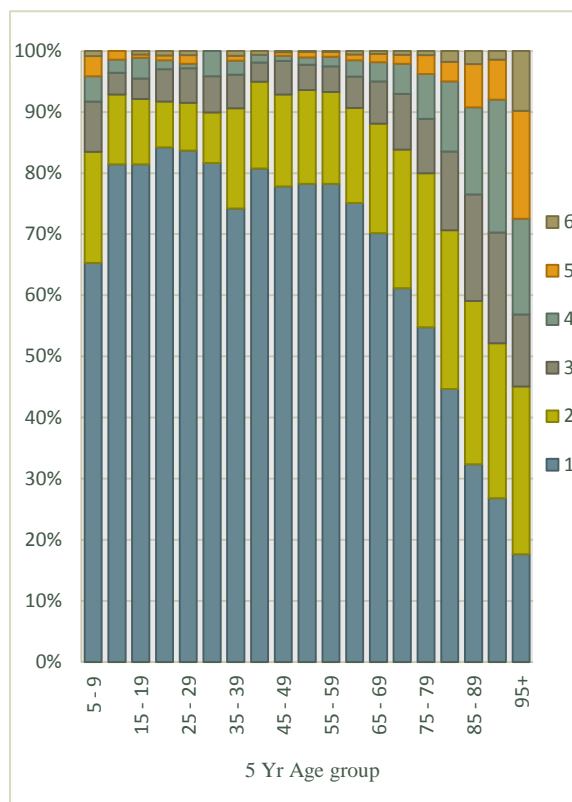


Figure 8: The number of domains on which persons have a disability by age



Whereas between ages 60 and 64 years, 75.1 percent of persons with disability reported having a disability on only one domain of functioning, this percentage decreased to 61.2 percent between ages 70 and 74 years. After reaching the age of 80 years, less than 50 percent of persons with disability reported having a disability on only one domain of functioning.

In one of the fastest growing age groups in the population of Aruba, consisting of persons between 75 and 79 years of age, nearly half (45.2 percent) of all persons with disability reported having a disability on more than one domain of functioning, particularly in the domains of mobility, seeing, and self-care. Prevention strategies directed at improving the functional status of the elderly in Aruba should focus on preventing the elderly from becoming disabled in aforementioned domains of functioning by providing sufficient care and support that would enable them to continue participating in society.

WHO IS IN NEED OF HELP?

Persons with disability often need assistance and support to be able to function in social and economic life on an equal basis with others. When the needed assistance and support is not provided, persons with disability often become overly dependent on their family members, hindering their own functioning and

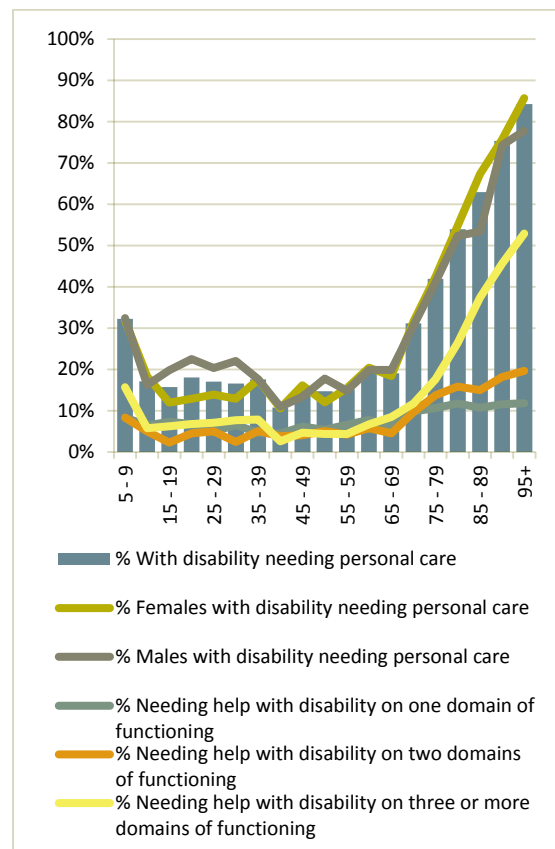
development as well as hindering the participation of their family members in economic and social life².

In Aruba, 2010 Census data revealed that 26.9 percent of persons with disability (on at least one domain of functioning) were in need of help with personal care and/or household chores. Moreover, the need for help was shown to be related to the sex of persons with disability, their age, the number of functional domains on which they reported having a disability, and the domain of functioning on which they were disabled.

Firstly, in absolute numbers, more females with disability were in need of help than males with disability (1,134, and 739, respectively). However, given the fact that there were more females with disability than there were males, the percentage of females with disability needing help differed only slightly from the percentage of males with disability needing help (28.3 percent, and 25.1 percent, respectively; see Figure 9). Secondly, persons with disability needing help were older than persons with disability not needing help (mean age=67 years, and mean age=54 years). Thus, as age increased, so did the prevalence of disability and the percentage of persons with a disability needing help (see Figure 9). Furthermore, the need of help was shown to be related to the number of functional domains on which persons reported having a disability. Whilst only 11.5 percent of persons with a disability on one domain of functioning reported needing help with personal care, 41.8 percent of persons with a disability on two domains of functioning did. Of persons with a disability on three or more domains of functioning, 81.6 percent reported needing help. Ageing, which is commonly associated with an accumulation of health risk factors, injuries and chronic health conditions, contributed to a significant increase in the number of domains on which persons reported a disability and hence to a heightened need for help with personal care (see Figure 9).

Finally, 2010 Census data revealed that the need of help of persons with disability was also related to the domain of functioning on which they reported being disabled. The need of help was particularly high in persons with a disability in cognitive functioning, self-care and communication, where 55.6 percent, 94.1 percent and 70.6 percent, respectively, reported needing help with personal care. The need of help was lowest in persons with a disability seeing (18.8 percent), and in persons with a disability hearing (24.1 percent).

Figure 9: The percentage of persons with disability needing help by age, sex, and number of domains of functioning on which they have a disability

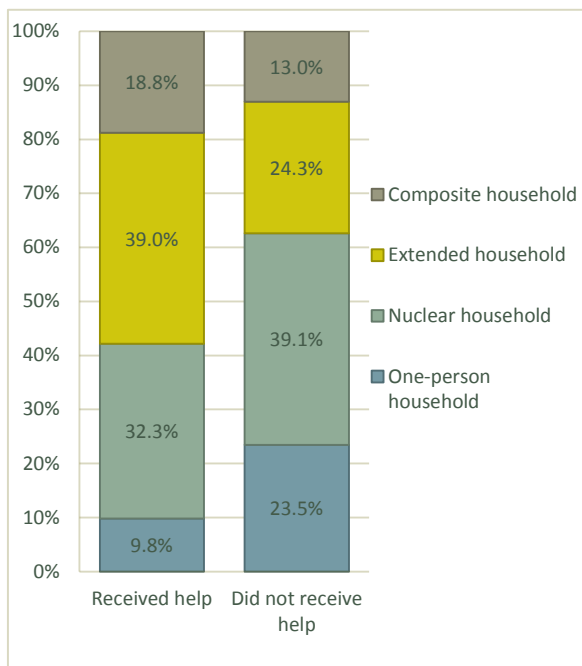


ARE THEIR NEEDS BEING MET?

Of persons needing help, 6.7 percent did not receive the help and assistance they needed (5.5 percent of males and 7.6 percent of females). This percentage is relatively low compared to figures obtained via population surveys held in Australia, Canada, New Zealand and the United States, where as much as 20 to 40 percent of persons with disability did not receive the assistance and support needed².

However, given that all persons with disability are entitled to receive the help and assistance they need, it is important to describe the characteristics of persons not receiving help. Data collected by means of the 2010 Census indicated that persons with disability who did not receive the help and assistance they needed were younger than persons with disability who received help (mean age = 57 years, and mean age = 67 years). In addition, persons not receiving help were affected on a fewer number of domains of functioning than persons receiving help (see figure 10). Whilst nearly half of persons not receiving help reported having a disability in one domain of functioning, less than 30 percent of persons receiving help did.

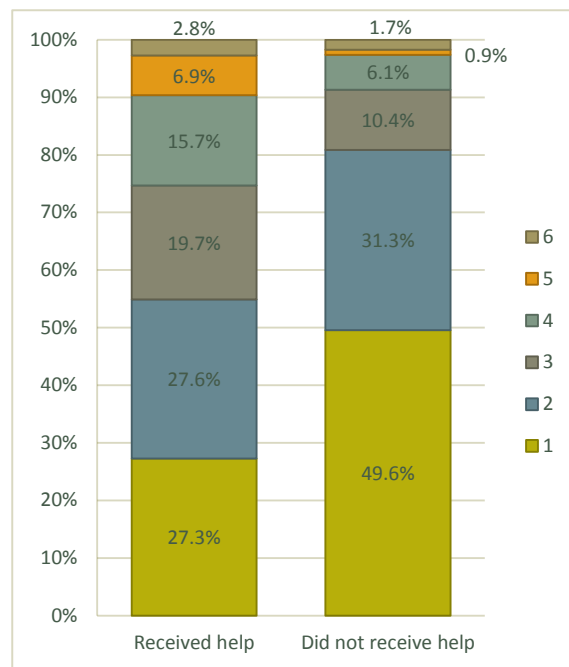
Figure 10: Persons with disability receiving help and not receiving help by number of domains of functioning on which they reported a disability



Furthermore, the percentage of persons not receiving help was highest in persons with disability seeing (8.7 percent), and lowest in persons with disability in the domains of communication, cognition, and self-care (4.6, 4.2, and 1.9 percent, respectively).

In addition, it is important to mention that nearly a quarter (23.5 percent) of persons with disability, who did not receive the help they needed, lived in a one-person household, compared to only 9.8 percent of persons with disability receiving help (see Figure 11). The majority of persons receiving help lived in extended households, where help was, as it appears, more readily available. In Aruba, it is still customary for children to take care of a parent that because of his or her advanced age is confronting difficulties in functioning. For this purpose, children either move in with their parent(s) or invite their parent(s) to come live with them, thus forming an extended household.

Figure 11: Persons with disability receiving help and not receiving help by type of household



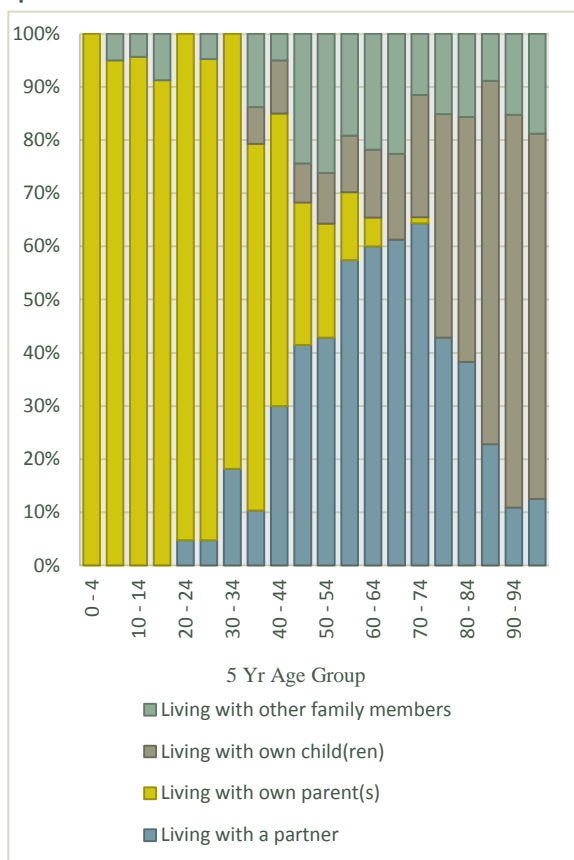
WHO PROVIDES FOR THE HELP AND ASSISTANCE NEEDED?

Worldwide, support to persons with disability is largely provided by family members, especially women. However, some important social and demographic factors are influencing the demand and supply of care. Firstly, rapidly ageing societies are confronted with an increasing demand for care, putting an extra strain on family caregivers who are confronted with an extra amount of stress, increasing financial costs related to caregiving and fewer opportunities for paid employment. Secondly, as family sizes decrease and more women are becoming active in the labor market, the availability of support provided by family members is decreasing².

In Aruba, the 2010 Census showed that in 15.9 percent of all interviewed non-collective households (5,099 in total), there was at least one person with a disability. In these households, persons with disability in need of help and assistance were mainly cared for by members of their own family living in the same household (71.0 percent). Depending on the age of the person with disability, care was mainly provided by parents and/or partners and/or children and/or other family members (see Figure 12).

Other important providers of non-institutional care were family members living in another household (13.7 percent) and other persons (non-family members) who were paid to provide the help and assistance needed (11.0 percent).

Figure 12: Percentage of persons with disability receiving help from family members inside the household by age and type of family members present in the household



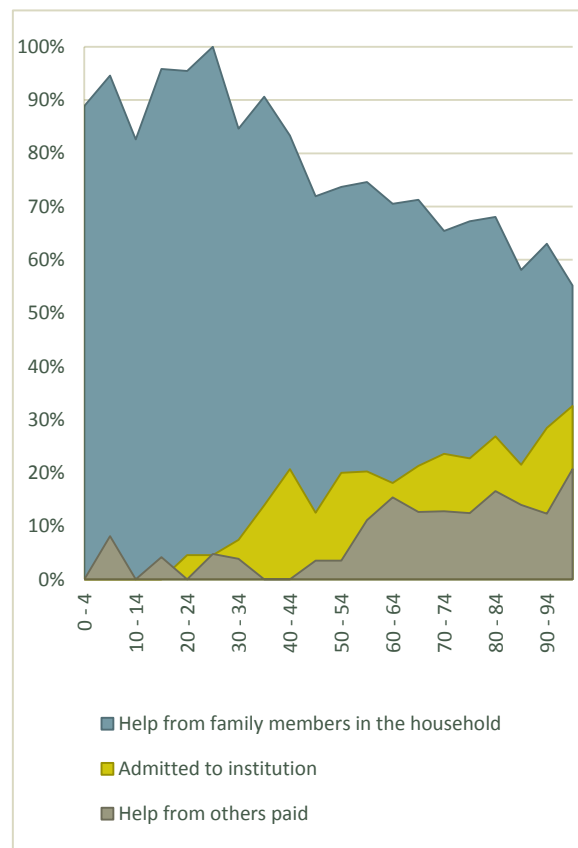
As the age of persons with disability increased (and thus the number of functional domains on which they had a disability), the percentage receiving help from family members inside the household decreased, accompanied by an increase in the percentage receiving help from others who were paid to provide the help needed and also by an increase in the percentage of persons with disability being admitted to an institution (see Figure 13).

In total, 344 persons with disability and in need of help and assistance (18.4 percent) were living in an institution. This group consisted of more females than males (210 and 134, respectively), but the percentage of females needing help and living in an institution (18.5 percent) did not differ from the percentage of males (18.2 percent) needing help and living in an institution. The majority (88.1 percent) lived in a home for the elderly, 5.7 percent lived in a home for persons with (primarily) a cognitive disability, and 6.3 percent stayed in a psychiatric institution.

Given the rapidly ageing population of Aruba and the expected rise in the percentage of the population needing help and assistance, it is of the utmost importance to allocate resources and formulate and implement policies involving different sectors and

different actors to guarantee a sufficient and adequate provision of care and support to persons with disability as well as to their caregivers for years to come.

Figure 13: Percentage of persons with disability receiving help by age and source of help



SUMMARY

Disability is part of the human condition. As such, everybody will at some point in time be confronted with disability, if not their own, that of family members, friends or colleagues. Therefore, it is important to conduct research on the prevalence of disability as well as on the needs and characteristics of persons experiencing difficulties in functioning. Given global changes in life expectancy, fertility and lifestyle, the prevalence of disability is expected to rise considerably over the next few years, challenging the provision and affordability of adequate care and support for persons with disability and their caregivers.

In Aruba, the 2010 Census has proven very valuable to providing basic information about the prevalence of disability and the needs and characteristics of those affected. In this paper, the prevalence of disability was discussed. Subsequent papers will address the social and economic costs of disability in Aruba.

REFERENCES

1. United Nations (2008). Principles and Recommendations for Population and Housing Censuses. Revision 2.
2. World Health Organization (2011). World Report on Disability. Geneva, Switzerland.
3. Convention on the Rights of Persons with Disabilities. Text of the Convention available on: <http://www.ohchr.org/EN/HRBodies/CRPD/Pages/ConventionRightsPersonsWithDisabilities.aspx>.
4. Washington Group on Disability Statistics. Understanding and interpreting disability as measured using the WG Short Set of Questions. Paper published on: http://www.cdc.gov/nchs/washington_group.htm.
5. Washington Group on Disability Statistics. The measurement of disability: Recommendations for the 2010 round of Censuses. Paper published on: http://www.cdc.gov/nchs/washington_group.htm.
6. United Nations (1994). Statistical Commission, Report on the Special Session (11-15 April 1994). Economic and Social Council, Official Records, 1994, Supplement No. 9, Series No. E/CN.3/1994/18, para. 59. New York.
7. Central Bureau of Statistics (2012). Census 2010 paper: Disability or handicap? Oranjestad, Aruba.
8. World Health Organization (2012). Defusing the demographic 'time-bomb' in Germany. Bulletin of the World Health Organization;90(1),6-7.
9. Central Bureau of Statistics (2012). Census 2010 paper: Ageing on Aruba. Oranjestad, Aruba.
10. World Health Survey. Geneva, World Health Organization, 2002-2004.
11. Central Bureau of Statistics (2012). Double or quits: A study on recent migration to Aruba 1993-2003. Oranjestad, Aruba.
12. Central Bureau of Statistics (2012). Census 2010 paper: The foreign-born population living on Aruba. Who are they? Oranjestad, Aruba.
13. Department of Education Aruba (2012). Statistical Yearbook: Education in Aruba 2010-2011. Oranjestad, Aruba.
14. World Bank (July 2012). World Bank List of Economies. Downloaded on July 10, 2012 from <http://data.worldbank.org/about/country-classifications/country-and-lending-groups>.
15. Department of Public Health / Central Bureau of Statistics (2007). STEPS Aruba 2006: Chronic disease risk factor surveillance data book. Oranjestad, Aruba.

APPENDIX 1: THE SHORT SET OF QUESTIONNAIRE ON DISABILITY AS INCLUDED IN THE 2010 CENSUS

14	The following questions concern difficulties you may have when doing certain activities - due to a health problem	
a. Do you have difficulty seeing, even if wearing glasses/contact lenses?		
<input type="checkbox"/>	No - no difficulty	<input type="checkbox"/>
		Yes - a lot of difficulty
<input type="checkbox"/>	Yes - some difficulty	<input type="checkbox"/>
		Cannot do at all
b. Do you have difficulty hearing, even if using a hearing aid?		
<input type="checkbox"/>	No - no difficulty	<input type="checkbox"/>
		Yes - a lot of difficulty
<input type="checkbox"/>	Yes - some difficulty	<input type="checkbox"/>
		Cannot do at all
c. Do you have difficulty walking or climbing steps?		
<input type="checkbox"/>	No - no difficulty	<input type="checkbox"/>
		Yes - a lot of difficulty
<input type="checkbox"/>	Yes - some difficulty	<input type="checkbox"/>
		Cannot do at all
d. Do you have difficulty remembering or concentrating?		
<input type="checkbox"/>	No - no difficulty	<input type="checkbox"/>
		Yes - a lot of difficulty
<input type="checkbox"/>	Yes - some difficulty	<input type="checkbox"/>
		Cannot do at all
e. Do you have difficulty with self-care such as washing all over or dressing?		
<input type="checkbox"/>	No - no difficulty	<input type="checkbox"/>
		Yes - a lot of difficulty
<input type="checkbox"/>	Yes - some difficulty	<input type="checkbox"/>
		Cannot do at all
f. Because of a physical, mental or emotional health condition, do you have difficulty communicating? (e.g. understanding others or others understanding you)		
<input type="checkbox"/>	No - no difficulty	<input type="checkbox"/>
		Yes - a lot of difficulty
<input type="checkbox"/>	Yes - some difficulty	<input type="checkbox"/>
		Cannot do at all

APPENDIX 2: TABULATION ON DISABILITY CHARACTERISTICS, 2010 ARUBA CENSUS

<u>Sex</u>	Total	<u>With disabilities</u>	<u>Without disabilities</u>	Not stated
<u>Age group</u>				
Female	53,243	4,007	49,029	207
Male	48,241	2,947	45,040	254
Total	101,484	6,955	94,069	461
<u>Age / Both sexes</u>				
Under 1 year	1,117	3	1,105	9
1-4	5,390	18	5,358	14
5-9	7,038	131	6,880	27
10-14	7,497	152	7,326	19
15-19	7,298	193	7,088	17
20-24	5,277	144	5,106	27
25-29	5,476	153	5,294	29
30-34	6,404	183	6,193	28
35-39	7,469	277	7,153	39
40-44	8,256	343	7,868	44
45-49	9,237	533	8,672	32
50-54	8,403	627	7,740	36
55-59	6,891	692	6,177	22
60-64	5,132	569	4,543	19
65-69	3,738	654	3,070	14
70-74	2,932	664	2,261	8
75-79	1,974	632	1,329	13
80-84	1,094	480	613	2
85-89	498	304	192	2
90-94	216	149	67	-
95-99	56	39	14	3
100 years and over	17	16	1	-
Not reported	75	-	19	55
Total	101,484	6,955	94,069	461
<u>Age / Male</u>				
Under 1 year	560	2	552	5
1-4	2,767	11	2,749	6
5-9	3,597	80	3,503	14
10-14	3,799	87	3,705	8
15-19	3,775	93	3,670	12
20-24	2,724	77	2,636	12
25-29	2,552	75	2,464	14
30-34	2,901	74	2,810	17
35-39	3,509	135	3,346	28
40-44	3,824	139	3,663	23
45-49	4,350	244	4,086	21
50-54	3,876	286	3,573	17
55-59	3,194	306	2,873	15
60-64	2,347	246	2,090	11
65-69	1,719	284	1,429	6
70-74	1,243	262	979	2
75-79	810	245	557	8
80-84	411	161	250	-
85-89	171	95	74	2
90-94	56	38	18	-
95-99	11	6	3	1
100 years and over	3	3	-	-
Not reported	41	-	10	31
Total	48,241	2,947	45,040	254

<u>Sex</u>	<u>Total</u>	<u>With disabilities</u>	<u>Without disabilities</u>	<u>Not stated</u>
Age group				
<u>Age / Female</u>				
Under 1 year	557	1	553	3
1-4	2,624	8	2,609	8
5-9	3,441	51	3,377	13
10-14	3,698	65	3,621	12
15-19	3,522	100	3,417	5
20-24	2,552	67	2,470	15
25-29	2,924	78	2,831	15
30-34	3,503	109	3,383	11
35-39	3,959	142	3,807	11
40-44	4,431	205	4,205	22
45-49	4,887	289	4,586	12
50-54	4,527	341	4,167	18
55-59	3,696	385	3,305	6
60-64	2,785	324	2,453	9
65-69	2,019	370	1,641	8
70-74	1,690	402	1,283	5
75-79	1,165	388	772	5
80-84	683	318	363	2
85-89	327	209	118	-
90-94	160	111	49	-
95-99	45	32	11	2
100 years and over	14	13	1	-
Not reported	34	-	10	24
Total	53,243	4,007	49,029	207