Recruitment and Retention of Health Care Providers in Remote Rural areas

Status report for Greenland

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## Contents

1. Introduction ....................................................................................................................... 3
2. Geography ......................................................................................................................... 3
3. Demography ...................................................................................................................... 5
4. The organization of the health care services ..................................................................... 6
   4.1 Primary health care ........................................................................................................ 8
   4.2 Hospitals / Specialized service ..................................................................................... 8
5. Population in towns and regions...................................................................................... 11
6. Education and training ..................................................................................................... 13
7. Recruitment / Retention problems of health care professionals ...................................... 13
8. Summary .......................................................................................................................... 15
1 Introduction

This report should contribute to a broader understanding of the actual situation in Greenland concerning recruitment and retention in the Health care sector.

In order to create an understanding of the specific challenges in Greenland this report include equally general information about Greenland and specific information about the organization of the health care services and the nature of the workforce. To conclude, some comments on the nature of the significant problems with recruitment and retention of health care workers.

2 Geography

Greenland is the largest non-continental island in the world. It’s situated on the North American continent northeast of Canada. The northernmost point of Greenland is just 740 kilometers south of the North Pole and the southernmost point is at the same level as Oslo, Norway.

Greenland is 2,166,086 km$^2$ in size, although only approximately 19% is inhabitable, the rest is covered by the Icecap. At the longest point the distance from north to south is 2,670 km, and at the broadest point the distance from east to west is 1,050 km.

The climate varies from arctic to sub-arctic, this implicates cool winters and cold summers (mean temperature does not exceed 10° C in the summer).

On January the 1st 2011 there were 56,615 inhabitants in Greenland.

The population density is 0,027/km$^2$, and there is no distinction between rural and urban density, due to the size of Greenland and population.

All the inhabited areas are along the coast, but the mountainous nature of the country makes its impossible to link towns by roads. Thereby the Greenlandic infrastructure primarily depends upon airplanes, helicopters and boats. Furthermore there are often limitations on airborne transportation due to severe weather conditions (snow, ice, wind, fog), and large boats are in some parts of Greenland impossible due to ice several months each year.
Flights to Greenland depart mainly from Copenhagen, Denmark to Kangerlussuaq (Midwestern Greenland). In summer it’s also possible to arrive in Narsarsuaq (Southern Greenland). During summer departures to Kangerlussuaq are daily, the rest of the year only Monday, Tuesday, Thursday and Friday. Furthermore, depending on the season, there are some departures from Iceland to Greenland.

Flight to the rest of Greenland originates from Kangerlussuaq.

Due to the mountainous geography in Greenland runways throughout the country are small only allowing for smaller planes and/or helicopters. Daily transport to more settlements is conducted by boat, and in the northern parts of Greenland during winter by dog sleigh and/or snowmobile.

In emergencies evacuations are conducted by all the above mentioned means of transportation. However boat, dog sleigh and snowmobile is only used when the weather and/or time doesn’t allow for helicopters and/or planes to fly in.

Supplies and provision are shipped by boat and plans. In several parts of Greenland boats can’t arrive for months because of ice.

Except from some departures from Nuuk to Iceland, all planes are operated by Air Greenland, thereby acting in an (almost) monopoly. The prices are considerable, the costs, in Danish kroner’s (dkk.), of tickets from Nuuk to several towns in Greenland are illustrated in figure 1. From Denmark and/or Iceland to Greenland the price is around 4.000 dkk.

The defined area for the report and thereby this report will be Greenland as a whole. Common trends exist between most areas except from Nuuk, the capital.

The challenges not only exist in transportation, communication also presents some severe problems due to technicalities. Communication in Greenland is rather challenging as three different forms of connections are present, for an overview se figure 2.
o In Qaqortoq (south)
o and Nuuk telecommunication is by broadband.
o In the south-western part of Greenland telecommunication is by radio chain.
o In the northern and eastern cities of Qaanaq, Upernavik, Tasilaq and Ittoqqortoormiit telecommunication is by satellite.

3 Demography

In general quite at few people move to and from Greenland, either to get a job or to get an education. Greenland only has a limited supply of educations, so students often move to Denmark – or another country to study. The other way round there’s a need to recruit from abroad within several industries, thereby the net immigration remains rather low (table 1).

Tabel 1

<table>
<thead>
<tr>
<th>Year</th>
<th>Net immigration</th>
<th>Immigrations, total</th>
<th>Emigration, total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Persons born in Greenland</td>
<td>Persons born outside Greenland</td>
<td>Persons born in Greenland</td>
</tr>
<tr>
<td>2002</td>
<td>-288</td>
<td>2,126</td>
<td>2,414</td>
</tr>
<tr>
<td>2004</td>
<td>-236</td>
<td>2,482</td>
<td>2,718</td>
</tr>
<tr>
<td>2006</td>
<td>-644</td>
<td>2,404</td>
<td>3,048</td>
</tr>
<tr>
<td>2008</td>
<td>-639</td>
<td>2,536</td>
<td>3,175</td>
</tr>
<tr>
<td>2010</td>
<td>-160</td>
<td>2,491</td>
<td>2,651</td>
</tr>
</tbody>
</table>
The general age distribution of the entire country is illustrated in figure 3.

The life expectancy for females is 71.6 years and 66.6 years for males.

Neonatal mortality is 9.6 deaths per 1,000 live births.

<table>
<thead>
<tr>
<th>Tabel 2 Employment status last five years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Total population</td>
</tr>
<tr>
<td>Total labour force 1)</td>
</tr>
<tr>
<td>Unemployed persons 2)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unemployment rate</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>5.2</td>
<td>4.8</td>
<td>4.6</td>
<td>3.5</td>
<td>3.7</td>
<td>4.2</td>
</tr>
<tr>
<td>Women</td>
<td>4.9</td>
<td>4.3</td>
<td>4.1</td>
<td>3.1</td>
<td>3.2</td>
<td>3.6</td>
</tr>
</tbody>
</table>

1) The figures for the years 2000 to 2008 include persons from 15 to 62 years of age. The figures for the year 2009 include persons from 15 to 63 years of age. The figures for the year 2010 include persons from 15 to 64 years of age. Notice that people born outside Greenland are included. The total labour force therefore differs from the labour force figure usually published. This is due to the fact that unemployment figures include all unemployed people regardless of birthplace. The calculation of the unemployment rate in this table must therefore be based on the total labour force regardless of birthplace.

2) Average number of unemployed persons per month.

4 The organization of the health care services

The ministry of Health is Greenland's top health authority.

The Agency for Health and Prevention, the National Board of Health, is responsible for the overall administration of health services throughout Greenland. National Board of health is managed by the director together with the medical director, nursing director and dental director.
The health Regions, dentistry, the national hospital Queen Ingrid's Hospital in Nuuk, the Greenlandic patient home in Denmark and operations department reports to the Management team. The Agency develops implements and coordinates treatments, prevention and health promotion efforts.

The Greenlandic health care system is financed by general taxation, all medical services including dental services and medication is free.

Greenland has just, starting January 2011, undergone a reorganization of the organisation of the health care system. Whereas the country previously was divided into 16 districts it now consists of 5 large health care regions. The regionalisation process is still new and demands a lot of work and attention.

Decentralization is a part of the restructuring, and six new management teams (a regional head doctor and regional head nurse) has been created. Due to this decentralization the need for qualified doctors and nurses with a high level of management skills and experience has increased, and it is rather difficult to fill in these vacancies.

**Figure 4 The organisation of the health care system, before with 16 districts now with 5 regions**
4.1 Primary health care

Each town has a health care centre, run jointly with the local hospital. In some small settlements however the medical centre is a settlement station with no trained personal and only few specific medications, however in all settlements with more than 25 inhabitants there’s access to the telemedicine unit, Pipaluk (figure 5 and figure 6).

Inhabitants must first and foremost use the medical services of their local health care centre.

4.2 Hospitals / Specialized service

The national hospital, Queen Ingrids Hospital, is located in Nuuk. This serves as both local hospital for inhabitants in Nuuk and national hospital for inhabitants coming for specialized treatments from all of Greenland.

In each region there’s a main hospital, the regional hospital. The regional management team, the regional chief doctor and regional chief nurse, is responsible for all health care centres in the region. The numbers of hospitals, healthcare centres and nursing stations differs in each region.

The regional hospitals can’t offer a large range of - if any - specialised treatments, patients therefore are sent either to Nuuk and/or aboard to either Denmark or Iceland. Patient transportation, both acute and planned, is approved for and organised by the coordinating office at DIH, Nuuk.
The health care centers hospitals are:

**Queen Ingrid’s Hospital** - national hospital, located in Nuuk
- Surgery wards
- Medicinal wards
- Births
- Psychiatric ward
- Physiotherapy
- Occupational Therapy

**16 healthcare centers**
The 16 cities are divided into 5 regions of varying sizes.

**Region Kujataa (South)**
- Nanortalik
- **Qaqortoq** (Regional centre)
- Narsaq

**Regions Sermersooq (East and West)**
- **Nuuk** – The health-care center is for the citizens in Nuuk and does not have any beds, but has a casualty-function and can admit patients directly into Queen Ingrid’s Hospital.
- Paamiut
- Tasiilaq (east Greenland)
- Ittoqqortoormiit (east Greenland)

**Region Qeqqa (Center)**
- **Sisimiut** (Regional centre)
- Maniitsoq

**Region Disko (Disko bay)**
- **Aasiaat** (Regional centre)
- Qasigiannguit
- Qeqertarsuaq

**Region Avaanna (North)**
- **Ilulissat** (Regional centre)
- Uummannaq
- Upernavik
- Qaanaaq
In each of the health care regions there’s a regional hospital / health care center (marked with a star). The regional management team, regional chef doctor and regional chief nurse, are based at this center. The other hospitals / centers in each region are under the joint management of the regional management team. The regionalization is still rather new and changes due to this new structure are still being explored and implemented however the general rules is that the management team can, for each region decide how to use the resources. Yet at each town/ center there should be some kind of emergency plan for the citizen to get in contact with medical staff either directly or by the use of telemedicine.

Table 3 (Estimations on) Number of beds, employees and settlements in the Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>Beds</th>
<th>Doctors</th>
<th>Nurses</th>
<th>Midwife</th>
<th>Other</th>
<th>Dentist</th>
<th>Settlements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kujataa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qaqortoq *</td>
<td>18</td>
<td>4</td>
<td>8</td>
<td>1</td>
<td>45</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Nanortalik</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td>39</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Narsaq</td>
<td>13</td>
<td>2</td>
<td>3</td>
<td></td>
<td>28</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Sermersooq</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuuk *</td>
<td>DIH</td>
<td>9</td>
<td>12</td>
<td>DIH</td>
<td>35</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Paamiut</td>
<td>10</td>
<td>2</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ammassalik</td>
<td>22</td>
<td>3</td>
<td>7</td>
<td>1</td>
<td>30</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Illoqqortoormiut</td>
<td>10</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td>10</td>
</tr>
<tr>
<td><strong>Qeqqa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sisimiut *</td>
<td>19</td>
<td>5</td>
<td>2</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Maniiitsoq</td>
<td>17</td>
<td>3</td>
<td></td>
<td>1</td>
<td>62</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td><strong>Disko</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aasiaat *</td>
<td>22</td>
<td>5</td>
<td>15</td>
<td>1</td>
<td>54</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Kangaatsiaq</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qasigiannguit</td>
<td>14</td>
<td>2</td>
<td>3</td>
<td></td>
<td>30</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Qeqertarsuaq</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td></td>
<td>13</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Avannaa</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilulissat *</td>
<td>23</td>
<td>5</td>
<td>12</td>
<td>1</td>
<td>55</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Uummannaq</td>
<td>15</td>
<td>2</td>
<td></td>
<td>1</td>
<td>40</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Upernavik</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td>Qaanaaq</td>
<td>8</td>
<td>1</td>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>
5 Population in towns and regions

The biggest health region is Sermersooq with 21,388 inhabitants, hereby 16,160 lives in the capital Nuuk. Next follows the health region of Qeqqa with 16,459 inhabitants, in this region more than one third lives in the second largest city in Greenland Sisimiut. Then follows the health region of Avannaa with a population of 10,967 people, whereas 5,023 lives in Ilulissat. Next comes the region of Kujataa and last Disko.

Except from the region of Sermersoq, there has been a decrease in the population within the period from 2001 til 2011. However its rather small (between 124 and 737 people). For the region of Sermersq the total of inhabitants has increased by 1,793 people in the same period of time. This increase is due to the fact that the capital is part of Sermersoq.
In general there has been an increase in population in the larger towns compared to the smaller towns, this is a mentioned above in particular significant for Nuuk.

The populations in the settlements are declining almost everywhere. Where it seems as if the population in settlements is increasing this might also be due to the fact that a former town has now become a settlement (< 500 inhabitants).
6 Education and training

Greenland only has some health educations in Greenland, and it would for instance be impossible for Greenland to create a medical school for doctors in Greenland. However some educations has been introduced, but still since the total numbers of inhabitants is so relatively small several students must study abroad.

- Doctors
  No education possible in Greenland. Greenlandic students must go aboard to study medicine. Most students choose to go to Denmark.

- Nurses
  Greenland has its own nursing school in Nuuk, between 5-8 student graduate each year. However the number of applicant has increased these last years.

- Midwives
  No education in Greenland, student must go aboard (to Denmark). Just recently the government has promoted the possibility for nurses in Greenland to study to become midwife in Norway.

Continuing education for the health care professionals is a focus area in Greenland to educate health care professionals in the specific conditions of remote and rural areas. Starting with “artic nursing” next summer (2012).

Other educations for health care professionals in Greenland:
- Nursing assistant
- Dental assistant
- Dental hygienists

7 Recruitment / Retention problems of health care professionals

One main problems is the continuity, between half and one third of the employees in the Greenlandic health care system are coming for the first time to work in Greenland, and moreover they only stay for a shorter period of time.

- Doctors
  o General prationners in coastal health care centres:
    ▪ 75 % of all contracts in later years < 3 years, constantly demand on shorttime temps.
    ▪ For the moment appromatley 38% on short term contract
  o Specialists in Queen Ingrids Hospital
- Midwifes:
  - 30% of employees are shorttime contracts

- Nurses:
  - Constantly lack of intensive care nurses and child care nurses
  - Occasionally lack of surgery nurses
  - 18% short time contracts, however generally > 3 months

Figure 11 Numbers of nurses a year and length of contract.

- Dentist:
  - 66% shorttime contracts
- Other groups:
  - **Pharmaconomist:**
    - 18% short time contracts
  - **Physiotherapist:**
    - 17% short time contracts
  - **Bioanalysts:**
    - 14% short time contracts, however generally min. 6 months
  - **Medical secretary**

Recruitment and retention problems create:

- Lack of continuity
- Inadequate service problem
- High expenses due:
  - To short term contracts
  - Use of temp agencies
  - Housing,
  - Coverage of travel and moving expenses
  - Administrative task

8 **Summary**

What are the main problems which need to be addressed?

- Recruitment from Scandinavia (due to language)
- The need for qualifications almost no longer available
- The need for “the best” due to the complexity of tasks
- The limited economical incentives
- Experienced managers