Malta

KEY FACTS:

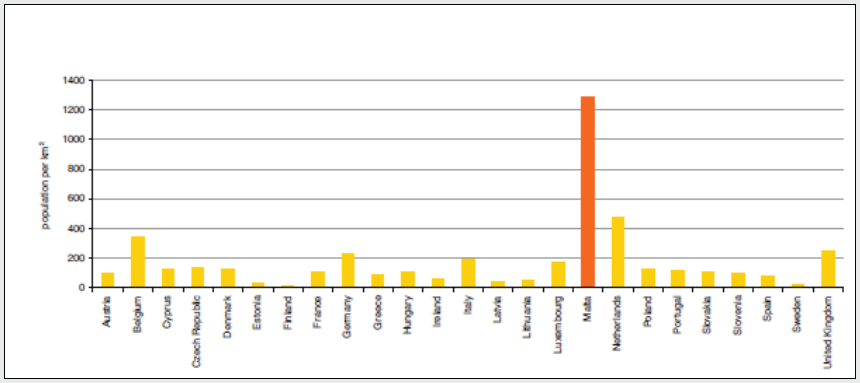
- Joined Commonwealth: 1964
- Capital: Valletta
- Population: 407,000 (2007)
- GDP growth: 2.7 % p.a. 1990–2005
- Official language: Maltese, English
- Time: GMT plus 1-2hr
- Currency: Euro (€)

Current vulnerabilities and threats

1. What are the health risks from current or future climate change impacts that are of most concern to your country?

Malta lies in the centre of the Mediterranean and is a group of small islands which are very densely populated. The density of the Maltese population stood at 1,298 persons per square kilometre in 2007. This is way beyond the average density of the European Union (Figure 1). These two characteristics – being an island and densely populated – coupled with the fact that the Maltese population is ageing (Figure 2), heavily predispose the Maltese islands to climate change impacts.

Figure 1: Population density of Malta as compared to other EU member states (National Statistics Office, Census 2005)

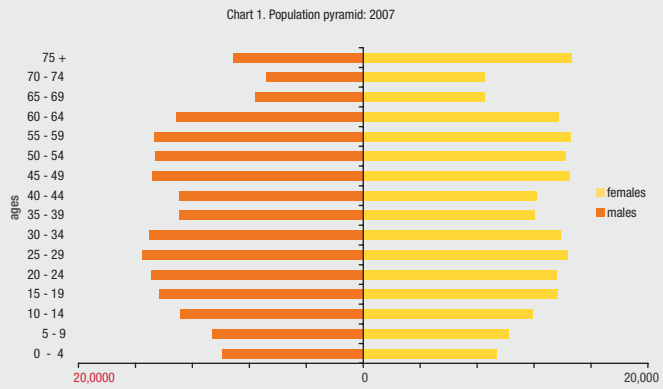


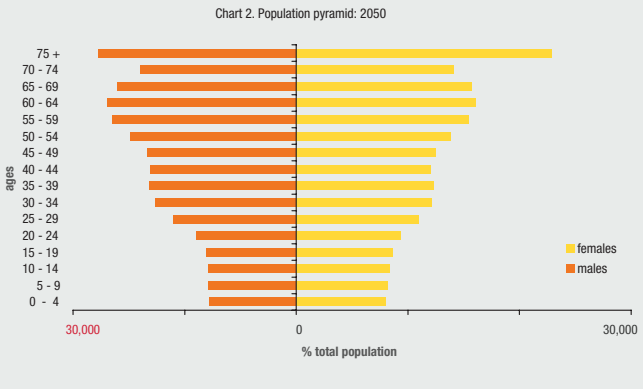
Local information on climate change impacts is quite limited and impact scenarios at a local level are lacking. Uncertainties as to how climate change will affect Malta still prevail and the need for downscaling regional scenarios to local scenarios cannot be underestimated. In broad terms however, the main effects on health relevant to our islands are closest to those common in countries of the Mediterranean region and to small island states.They include:

Direct effects

- More frequent and more intense weather events such as heat waves during the Summer months and cold spells during the Winter months may increase temperature-related mortality in those most vulnerable such as the elderly and those suffering from chronic cardiovascular and respiratory diseases.
- In warmer months one would expect to find more diarrhoeal disease such as *salmonellosis* due to refrigerator break downs and food spoiling faster.
- Less precipitation and prolonged periods of drought. This may push water tables beyond their critical level of use (most of which are already becoming saline) and enhance our dependency on desalination plants to produce potable water. Furthermore changing

Figure 2: Population pyramid of the Maltese population in 2007 and as projected in 2050 (National Statistics Office, Demographic Review 2007)





precipitation patterns such as overall less annual rainfall coupled with heavy precipitation over a few days – may have an impact on agricultural produce which will have direct/indirect effects on farmers and the risk of them losing their job.
- Changes in precipitation patterns that lead to an increase in flooding episodes may be a hazard to people's lives (drowning), damage buildings and infrastructure.
- Redistribution of vectorborne diseases such as malaria and dengue fever may emerge or re-emerge on our islands.
- Rising sea levels globally may damage our coasts and homes close to our coast, disrupt our coastal ecosystem, affect fisheries and drown our natural aquifers (which have already overshot their threshold of use).

Indirect effects
- The number of irregular migrants from North Africa seeking asylum in Malta has dramatically increased over these last seven years. Migration patterns of irregular migrants is bound to be additionally affected by water shortages, which, coupled with conflict over African and Middle Eastern countries, may further pronounce the number of migrants arriving at our shores. This may affect our health indirectly through a higher population density and lack of resources in setting up a programme to integrate those with refugee or humanitarian status with the local population.
- A higher number of casualties and decompensation of chronic diseases such as respiratory conditions, cardiovascular disease, dehydration and hypothermia – by climatic changes such as heat stress and cold spells may temporarily arrest or slow down the running of the healthcare system.
- Stress on an already fragile economic system, typical of small island states, may indirectly affect the well being of the whole population.
- Possible adverse effects on the tourism sector which is an important income sector for our economy.
- Climate change impacts on non-human nature and biodiversity can also have implications on health which we are not yet aware of (e.g. pollenation of some trees out of season sensitising susceptible individuals to asthma outside the usual season).

2. What population groups in your country are most vulnerable to the health impacts of climate change and what are the impacts likely to be?
- The elderly who live alone, especially people living in top apartments without temperature control (or a combination of more than one):
  - impacts from more frequent and more intense heat waves leading to dehydration and heat stress;
  - impacts from periods of cold stress leading to hypothermia, especially in the elderly who live alone at home and predispositions to pulmonary infections and pneumonias.
- Children.
- People with chronic diseases.
- People who depend on agriculture for a living.
- Residencies close to the coast.
- Residencies in valleys.

Strategy and policy

3. How much of a priority is addressing the impacts of climate change on health for your country?

Mid-level priority (status quo) but should be high-level priority.

4. Please describe the strategies your country has developed (for example, health and climate change adaptation strategies) that address the health impacts of climate change.
- A national climate change mitigation strategy is being drafted by a national climate change committee. This strategy focuses mainly on ways to reduce national greenhouse gas emissions. Health is mentioned as a by-product of mitigation but is not one of the objectives of the strategy. Adaptation to climate change impacts as regards health is not included in the strategy.
- Early warning systems for floods in some localities where flooding is a problem.
- During heat waves, early warning systems for people, especially the elderly living in institutions or in their homes, to stay inside and drink a lot.
- A study is currently being carried out on the effect of temperature and humidity on mortality on the Maltese Islands. This may fine-tune predictions or projections of mortality following particularly cold days during the Winter or hot days during the Summer, consolidating further early warning systems.
- A conference on the effects of climate change on health due April 2009 is being organised by the Environmental Health Department with the purpose to increase awareness, get stakeholders and policy-makers together, and share ideas. This could be fertile ground to spark off a strategy on the health impacts of climate change.
- Malta does not have climate change adaptation strategy.

5. Has health been integrated into national climate change mitigation and adaptation strategies?

No.

6. What steps have been made towards implementation of these strategies?

N/A.

7. What are the current policy gaps in addressing climate change and health?

Climate change is an issue which needs to be addressed by a number of sectors owing to the fact that mitigation and adaptation to climatic changes will then have to be implemented by different sectors. The climate is one of the fundamentals of the determinants of health and so calls for an integrated, collaborative and coordinated approach by all concerned. Ideally there should be a committee on climate change and health to coordinate interdepartmental and interministerial work. There is already a national climate change committee which addresses the issue of mitigation but not adaptation or health implications.

8. How well equipped is your health system to cope with the impacts of climate change?

It is very difficult to say how well equipped our health system is to cope with the impacts of climate change because it is very difficult to project and quantify the impacts of climate change and when they will occur. Even though there are some indications as to the effects of climate change in the Mediterranean region, knowledge in this area is still vague – probability and timescale of possible patterns is still unclear.

9. Have you made any changes to your health system in response to increased risks resulting from climate change and if so what changes have you made?
N/A.

10. What are the main constraints to addressing the health impacts of climate change in your country and how will these be addressed?
There is a lack of knowledge about the health impacts of climate change both in the lay public and amongst health professionals. This should be the first step in making people, especially health professionals, aware of the association between climate change and health. Having said this, people in general are becoming more aware of climate change as such, through political agendas to reduce greenhouse gas emissions as required by the European Union and through obligations to the Kyoto protocol. A climate change and health campaign was also held by the Environmental Health Department in collaboration with the Health Promotion Department and other units for World Health Day 2008. Nevertheless, more needs to be done to get people aware about the issue and to engage various stakeholders to be more pro-active.

Additionally, since the main contributors to climate change have also direct causal effects on health through other pathways such as air pollution, hazards from landfills and physical inactivity leading to obesity, addressing the climate change issue on health will also be addressing the problems of other issues on health. Once it is clear to health professionals that tackling climate change will also improve physical and psychological health through other pathways such as less pollution, more people walking or cycling, less cars on the roads, less congestion, stronger communities (which were found more in pedestrian areas than in areas congested with traffic), less dependency on oil, more energy efficiency, etc. this will benefit the health and financial situation of both individuals and the country.

So, in conclusion I would say that, the main constraint at this point in time is lack of awareness and education on climate change and health among first and foremost health professionals and the lay public. This is partly due to the lack of concrete data on the impacts of climate change locally, leading to uncertainties or sometimes even sheer apathy and passivity on the subject. By downscaling models of climate change impacts to local level, this vicious cycle could unlock and we could start to see a move towards more awareness, pro-activeness and initiative.

11. Have national resources been allocated to address climate change and health in your country? If so, approximately how much has been allocated and for what issues?
Not aware of any national resources allocated specifically to address climate change and health.

12. Is the Ministry of Health working together with other ministries (such as Ministries of Agriculture, Environment, Fisheries and Finance) to address health and climate change issues?
Yes.

13. Has your country been involved in work to manage climate change and health at the international level?
Yes, Malta is already a signatory to the Kyoto protocol and, when possible, sends delegates to international or regional conferences, to keep itself informed about the current situation and future climate change impacts on health in the Mediterranean region. At the moment Malta is a non-Annex I signatory to the Kyoto protocol but the Minister has announced Malta's intention to change its status to an Annex I party to the protocol during Poznan's Climate Change Conference in December 2009. It should be noted that the provisions of the United Nations Framework Convention on Climate Change also call for adaptation.

In addition, the Department of Environmental Health has taken an initiative to collaborate with various other departments to set up a national conference on climate change and health in April 2009.

Malta is also active in the WHO Environment and Health Forum where climate change and health effects is a priority and where a European Strategy to tackle the health effects of climate change is being drafted by the WHO-EURO member states in preparation for the upcoming Fifth Ministerial Conference on Environment and Health in early 2010.

14. How would you describe the capacity of your country to participate at the global level on climate change and health?
Given the size of our country, our economy and very limited resources, it is always difficult for our country to participate at global level on issues such as climate change. Nevertheless, the country recognises the importance of the issue of climate change and health and will do its utmost in its given capacity to participate at global level in order that it may impart the benefits locally.

Refernce person

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