SUMMARY

Demographic development: births, life expectancy, mortality, population projection

Since 2002, there have been several quite **dramatic changes in Vienna's demographic development:** an increase in net migration, especially until 2005, a marked increase in births, and a considerable reduction in deaths since 2004.

With 17,154 live births in 2009, the **positive trend in the balance of births** first observed in 2004 continued with significant growth. The total fertility rate, i.e., the average number of live births per woman during her lifetime, has increased by 5 percent over the last decade to 1.36 in 2009.

The *fertility rate* of Vienna's female population in 2009 was 46.5 births per 1,000 women aged 15 to 45, or 1.36 live births per woman of reproductive age. The mean age of Viennese women at the birth of their children continued to rise as in the last three decades and was 29.6 years in 2009.

The **life expectancy** of a population is considered a basic indicator of health and social well-being. In 2009, life expectancy in Vienna increased to 81.9 years for females and 76.4 years for males. This continues the marked increase since 2003. Further life expectancy at age 60 is 24.6 years for women (i.e., they can expect to reach the age of 84.6 years) and 20.7 years for men (80.7 years).

The downward trend of **mortality rates** continued as well. Between 1980 and 2009, age-standardised mortality dropped by 45 percent in Vienna. Marked decreases could be observed especially for the two main causes of death, cardiovascular diseases (-60 percent) and cancer (-22 percent).

This leads to an interesting **population projection** for Vienna. The city's resident population is expected to grow strongly in the coming years and is estimated to break the 2 million mark in approximately 30 years. The population growth can be attributed mainly to net migration and the natural population increase. The rising life expectancy will also contribute to population growth. Vienna is expected to become the federal province with the youngest population in Austria; nevertheless, the average age of the population will increase significantly. In particular, the number of very elderly Viennese will grow very strongly, which will likely pose one of the major future challenges for the public health care system.

Cardiovascular diseases

Despite the large decrease in the last years, **cardiovascular diseases** remain the main cause of death by far, with some 7,000 deaths (or 45 percent of deaths in Vienna, especially in the older age groups). More than half of the deaths from cardiovascular diseases are caused by ischaemic heart diseases, of which one third are myocardial infarctions.

Prevention programmes of the City of Vienna

- The successful prevention programme "Ein Herz für Wien" ("A Heart for Vienna") was established by the City of Vienna in 2001. While the programme officially ended in June 2009, many of its measures are being continued by the Vienna Health Promotion programme WiG and are being developed further in district and neighbourhood health promotion programmes with a focus on socially disadvantaged groups.
- Activities designed specially for the target groups of women, migrants, and senior citizens with a regional focus on three municipal districts of Vienna were carried out in cooperation with the Austrian health promotion fund "Fonds Gesundes Österreich".

Cancer

The mortality statistics for Vienna show **cancer** as the second most frequent cause of death right after cardiovascular diseases. More than one in four deaths (27 percent) are caused by cancer. In 2007, nearly 6,800 people in Vienna (3,406 women and 3,385 men) were diagnosed with cancer. This equals one in 256 women and one in 235 men. The most frequent types of cancer among women are breast cancer (27 percent of all cancer sites), followed by malignant neoplasms of the digestive organs (23 percent). Among **men**, cancer of the male genital organs (especially cancer of the prostate) is the most frequent type at 26 percent of cancer sites, followed by malignant neoplasms of the digestive organs at 23 percent.

Malignant neoplasms of the respiratory organs (mainly lung cancer) are the third most frequent type of cancer for both women (13 percent) and men (19 percent).

Prevention programmes of the City of Vienna

- Both intestinal cancer and lung cancer are closely linked to lifestyle (dietary habits, smoking). For this reason, the City of Vienna has been supporting the Austrian quitline "Rauchertelefon" since 2006, which provides professional support and guidance for people who want to give up smoking.
- The pilot project "Ich schau auf mich!", which was carried out from 2006 to the end of 2008, is a project based on the European guidelines for quality assurance in breast cancer screening and diagnosis through systematic, quality-assured mammography screenings. The programme was targeted at Viennese women aged 50 to 69 in Vienna's 15th, 16th and 17th districts. The project was funded and carried out by the Vienna Women's Health Programme, the City of Vienna, and the Vienna Health Insurance Fund.

Lifestyle factors and primary prevention

Other frequent causes of death are **diseases of the respi**ratory and **digestive systems**, and **nutritional and metabolic disorders** (especially diabetes). Their prevalence also reflects the unhealthy lifestyle of the Viennese population (smoking, high alcohol consumption, unhealthy and unbalanced diet).

The main lifestyle and risk factors are **smoking**, alcohol consumption, dietary habits and exercise. However, lifestyle factors are strongly determined by the social background (income and especially education), sex and age of individuals. Targeted **primary prevention** measures with the goal of influencing individual behaviour in a positive way are therefore particularly important.

The results of the preventive health checkups conducted by the Municipal Department for Public Health and Social Welfare in 2009 show that disorders related to lifestyle, such as elevated blood lipids (leading to a higher risk of arteriosclerosis) and overweight, but also hepatocyte damage and pathological pulmonary function, remain the most frequent diagnoses.

Men generally have more weight problems than women across all age groups and levels of education, and the situation has deteriorated considerably over the last ten years.

Smoking: a health risk

A quarter of Vienna's population above age 15 smoke daily, and nearly one in five used to smoke daily (former smokers). More than half of the Viennese population, however, have never smoked or at least not smoked on a daily basis (non-smokers).

Smoking is not only the **leading health risk** today and the cause of a large number of chronic diseases – in addition to cardiovascular and pulmonary diseases, the incidence of various forms of cancer in particular is causally related to smoking – it is also the **largest avoidable cause of death**. The high smoking prevalence among Viennese women and adolescents as well as the increase in female lung cancer mortality that has been observed over the last 15 years remain a cause for concern.

Smoking is not only a risk for smokers themselves, but also for those who are – often involuntarily – exposed to tobacco smoke (**second-hand smoke**).

According to conservative estimates, approximately 25 people **die** in Austria every day as a consequence of tobacco addiction, and two to three of these people die because of other people's smoking habit. However, other calculations place the number of deaths caused by tobacco-associated diseases at **7,200 annually in Vienna** alone. Overall, tobacco-associated mortality in Vienna is approximately ten percent above the Austrian average.

In addition to the general health risks associated with smoking, **women** are subject to **additional risks**, particularly during pregnancy and childbirth or if they use

hormonal therapies (birth control pill), and because of health problems specific to women (cervical cancer, menstrual disturbances, early menopause and stronger menopausal symptoms, and lower bone density). This places them doubly at risk. Women who smoke also suffer from depression more often.

Austria has the highest smoking rates internationally among children and adolescents, and they are still on the rise. Among girls the share of smokers is even higher than among boys. Smoking girls are subject to additional health risks if they also use the birth control pill and are at risk for complications later during pregnancy and childbirth.

To be successful, **prevention programmes** must be more than just short-term and isolated youth campaigns, and should instead use a multi-level approach to address both society as a whole and individual target groups.

Prevention programmes of the City of Vienna

• The City of Vienna has been supporting the Austrian **quitline** "**Rauchertelefon**" since its launch in 2006. This low-threshold telephone service provides professional counselling and advice on how to quit smoking. (Hotline 0810 810 013; <www.rauchertelefon.at>)

Conclusions

It is clear that the majority of the most common diseases today (cardiovascular diseases, cancer, diseases of the respiratory and digestive systems, nutritional and metabolic disorders) and of disorders that constitute health risks (such as elevated blood lipids, overweight, hepato*cyte damage, and pathological pulmonary function) can to a large or very large extent be attributed to individual behaviour*.

Primary prevention measures that aim at changing individual behaviour in a positive way, in particular by raising awareness for personal responsibility in preserving one's health and through the promotion of medical checkups for early detection of illnesses, therefore appear the most effective solution. Existing measures must be continued and reinforced. In order for prevention measures to yield the desired results, they must be planned for the long term, tailored to the individual target groups, and targeted especially at socially disadvantaged parts of the population. It is important to define goals, find appropriate measures, and to constantly review their efficiency.

The Influenza Pandemic

In April 2009, a new strain of influenza, the A/H1N1 virus ("Swine Flu"), was identified. It spread rapidly around the world. On 11 June 2009, the WHO raised the pandemic alert to phase 6, causing international and national pandemic plans to be activated. In Austria, the number of A/H1N1 infections contracted within the country only began to increase considerably in late October 2009. Based on the data provided by the influenza reporting system, the Department of Virology of the Medical University Vienna declared the beginning of the influenza epidemic in Austria on 11 November 2009.

The infection caused the same symptoms as the usual seasonal influenza, but particularly affected children and young adults. Generally the pandemic was relatively mild; however, more severe symptoms were observed in patients with pre-existing chronic diseases.

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