EUROPEAN COMMISSION – HEALTH MONITORING PROGRAMME

HEALTH INFORMATION SYSTEMS: STRUCTURES AND PROCESSES

Project coordinated by Regione Veneto

Country Report:

AUSTRIA

Submitted by Statistics Austria

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OVERALL STRUCTURE OF THE HEALTH SYSTEM IN AUSTRIA

Legality principle of the Austrian constitution:

The activities of public administrations must be regulated by law (act or ordinance based on an act). This implies that the state is obliged to carry out the measures and provisions set aside by law whereas the citizen has the right to utilize them but is also obliged to follow the instructions of the competent authorities, e.g. in case of an epidemic.

Territorial collectivities in Austria:

National level *(Bund)*
Regional level *(9 Länder,* or *Bundesländer)*
Subregional level (99 *Bezirke*, namely 84 “rural” districts, each of which comprises several communes, and 15 autonomous towns)

NB: In this report the term **regions** is used for the *Länder* instead of the sometimes confusing “federal states”.

Communal level *(2359 Gemeinden)*: The politico-administrative units of local government have far-reaching rights of self-government, plus tasks of state (national or regional) administration. Communes may cooperate with each other to form single-purpose units, e.g. health districts. The City of Vienna, Austria’s capital city, is commune, autonomous town and *Land* at the same time.

Federal principle of the Austrian constitution:

In addition to the division of power between legislation, administration and jurisdiction there is a partition of state competencies between the national and the regional level according to the Federal Constitution.

Article 10: Legislation and administration are **national competencies** in matters of health except for necropsy, dead bodies, burials, local health services and rescue; however, with regard to hospitals, nursing homes and health resorts only the sanitary supervision; environmental health; veterinarian matters, nutrition, food and phytosanitary control.

Article 12: National **basic** legislation and regional competencies for both **carrying-out acts** and **administration** apply to matters of hospitals, nursing homes and health resorts.

Article 15: Matters not mentioned elsewhere in the constitution belong to the regions. Article 15a enables **state treaties** (statutory agreements) between the federation and the regions, as in the case of performance-oriented funding of hospitals.

Organizations by fields of activity and levels of administration

Legislation and control

Legislation and control at national level

Parliament with two chambers *(Nationalrat, Bundesrat)*
Parliamentary committees
Court of auditors *(Rechnungshof),* attached to Parliament

Federal Government (introduces bills, unanimously), chaired by the Federal Chancellor

The Federal Government and the Federal Ministers are responsible to the Parliament.

Federal Ministers (propose bills, release ordinances):

Minister of **Health** and Women's Issues

Minister of Education, Science and Culture (medical universities)

The allocation of tasks to the individual ministries as laid down in the Federal Ministries Act is sometimes revised, particularly when new issues emerge or the political composition of the government changes. Health matters were together with social affairs before 1972 and from 1997 to 2003. As of 1 May 2003, the Ministry for Social Security and Generations was split to create a separate Ministry for Health and Women's Issues. Since the year 2000 a **State Secretary** has been dealing especially with health matters.

Legislation and control at regional level

Parliament *(Landtag)*
Court of auditors *(Landesrechnungshof)*

Land Government, Governor *(Landeshauptmann), Landesrat*

At the regional level, the nine *Länder* have their own right to organize tasks. Instead of separate ministries as at the national level there are several flexible groupings of departments within the "Office of the *Land* Government", each being under the responsibility of the Governor or of a minister called *Landesrat,* according to the current partition of affairs within the *Land* Government.

Public health management

Public health management at national level

Federal Ministry of Health and Women's Issues *(Bundesministerium für Gesundheit und Frauen)* and **State Secretariat in the FMH**

Among the competencies are legal, medical and economic matters of health; legal matters and supervision of social health and accident insurance; food security and veterinarian matters.

According to the Federal Ministries Act, health matters include:

general health policy; protection of the population's overall health from threats, and interregional health crisis management;

health care structure policy and planning, health systems development; performance-oriented funding of health services, information and classification systems in health care, health monitoring, quality in health care, health informatics and telematics;

health education and counselling; health of mother and child; preventive healthcare; occupational medicine; sports medicine; hygiene and vaccination; surveillance and combat of communicable diseases; medical assessment of and protection from radiation;

matters of health resorts and natural health resources, of hospitals, nursing homes and popular healthcare resorts; medical matters of disability; surveillance and combat of alcohol and drug abuse;

pharmacies and pharmaceuticals, including regulation of prices; health protection concerning medical products;

matters of necropsy, dead bodies and burials;

matters of health personnel and veterinarians, in particular of medical doctors, dentists, pharmacists, midwives, clinical psychologists, health psychologists, psychotherapists, including the respective professional bodies; health administration staff and non-academic health personnel; education and continuous vocational training of medical doctors, dentists and veterinarians after graduation.

Attached to the ministry is a number of advisory boards, commissions and institutes, among them the **Supreme Health Council** *(Oberster Sanitätsrat)* with 30 members from the medical scientific community; the **Structure Commission** with 27 national and regional politicians and experts engaged in health care planning and structural reforms; and the **Austrian Federal Health Institute** *(Österreichisches Bundesinstitut für Gesundheitswesen, ÖBIG)*.

The *ÖBIG* was founded by act in 1973 as a legal entity of its own. It has a scientific Advisory Board with 21 members who are selected by the Steering Committee for a three year's term. Its tasks comprise:
a) methodological development of data relevant for the health status of the people; the collection, analysis and documentation of such data;
b) research on health and information about such research;
c) preparatory work for planning in the field of health, in particular as regards the organization of medical and hospital care, of preventive and social medicine and environmental hygiene; and
d) training of health personnel.

The *ÖBIG* is among other things entrusted with the preparation of the triennial (1994, 1997, 2000) report on the health situation in Austria which the FMH has to submit to the Parliament. Furthermore, it has developed a GIS-based health information system, *ÖGIS,* that presents numerous health and related indicators at four to five territorial levels. The majority of the data come from Statistics Austria.

Main Association of Austrian Social Security Institutions
(Hauptverband der österreichischen Sozialversicherungsträger)

This umbrella organization is usually called in short *"Hauptverband"* (Main Association). It comprises the 25 statutory insurers which have been given the responsibility for social security (health, accident and pension insurance). The insurers are decentralized according to region or occupation. They are independent bodies with deputies ("insurance representatives") from employees, employers and self-employed. The Main Association works in the interest of social security and acts in

matters of common concern (e.g. contracts with doctors, hospitals, etc). It maintains large data bases and administers the social security number.

Social health insurance provides preventive care (examinations and preventive measures), sickness treatment by doctors, in hospitals and at home, medicines, special therapies, rehabilitation, sickness benefit, maternity hospital care and allowance. Social accident insurance refers to accidents at work or occupational diseases (prevention, treatment, rehabilitation, compensation).

Professional bodies

Statutory interest groups exist both at national and regional level:

Doctors' association *(Ärztekammer),*
Pharmacists' association *(Apothekerkammer),*
Midwives' association *(Hebammengremium),* and
Veterinarians' association *(Tierärztekammer)*

The above named professional bodies act on the grounds of law as administrative authorities in matters of admission or disqualification of professionals with regard to their respective association which is obligatory. The doctors' association, e.g., maintains the register of medical doctors *(Ärzteliste)* with all data required for exercising the medical profession.

Public health management at regional level

Land Government

In the nine *Länder* no national (federal) health authorities do exist. Hence, according to the federal constitution the *Land* Governor *(Landeshauptmann),* acting in this capacity as an agent of the federal government, has to carry out measures of national health administration on behalf of the Federal Minister. Health matters which fall into the competency of the region are to be administered by the *Land* Government *(Landesregierung)* as a cooperative body.

Within the Office of the *Land* Government *(Amt der Landesregierung)* there is usually an administrative department for health. It is headed by the Chief Medical Officer (*Landessanitätsdirektor)* who also chairs the Regional Health Council *(Landessanitätsrat).* The description of the mandate varies between the *Länder*. In some cases the medical and

legal matters of health are treated by separate departments, and some *Länder* dispose also of a department which is responsible for health planning and/or funding.

Subregional level (84 “rural” districts and 15 autonomous towns)

With the exception of Vienna the *Länder* are subdivided into districts the area of which stretches over several communes. In some cases, e.g. most regional capitals, a single commune forms an autonomous town that also has the competency and task of district administration of first instance *(Bezirksverwaltung).* On top of the subregional administration is either the Chief District Officer *(Bezirkshauptmann),* a civil servant appointed by the Land Governor, or - in the autonomous towns - the elected mayor *(Bürgermeister)*. Attached to him is the District Medical Officer *(Amtsarzt,* in the autonomous towns *Stadtphysikus),* an MD whose regular job is to carry out the tasks of health authority.

Public health management at communal level

The local communities, besides what was stated for the autonomous towns, are also given considerable tasks in health administration. These aim in particular at avoiding and spreading of communicable diseases, the matters of necropsy, dead bodies and burials, etc. In these contexts the communal functionaries act as health officials too.

Statistics and research

According to the federal constitution population censuses and other statistics that go beyond the interest of a single region are **national competencies** both in legislation and administration. The *Länder* have the right to carry on any statistics within their own region. There is no direct link between national and regional statistics except for the participation of regions in national advisory boards and a statutory agreement to avoid duplication.

Although the system of official statistics in Austria is highly centralized, it is not comprehensive. There is no Government Statistician on top to coordinate the activities of the national statistical institute, the ministries and specialized national agencies such as the Central Bank or the Main Association, nor a vertical system to embrace all levels of national, regional, communal and syndicate statistics.

At the national level the Federal Chancellor is responsible for general legislation (the federal statistics act), whereas each Federal Minister takes care of the relevant subject matter statistics. On the one hand the ministries and subordinate bodies prepare statistics from the data that are routinely collected in the administrative process. On the other hand the minister has to enact the necessary regulations for data collection in the population at large and in the enterprises (in particular to implement EU statistics) as well as for the supply of administrative data to statistical agencies.

Statistics in which the mandatory cooperation of respondents is required must be based on legal grounds. These may be a **statistics act** (e.g. the cancer statistics act), a **subject matter act** containing among other things provisions for statistics (e.g. the civil registration act with regard to births, deaths and causes of death), or a **statistics ordinance** based on the federal statistics act or a subject matter act. Personal data on the health status are classified as **sensitive** according to the data protection act. Hence, mandatory statistics in this field must be based on acts. This does not apply when data are collected on a voluntary basis with the consent of the respondent.

The **use of personal data** is permitted for scientific or statistical purposes if the data are public or have been collected lawfully by the user or are classified as only indirectly personal. Other applications of non-public data require special safeguards. Therefore the law enables the use of statistical data for secondary analyses in scientific research. Under certain conditions also the transmission of sensitive data may be permitted, e.g. the linkage of data from clinical research and statistics.

MAIN ORGANIZATIONS IN THE HEALTH INFORMATION SYSTEM

Statistics Austria

Statistics Austria *(Bundesanstalt Statistik Österreich)* can be considered as the hub of the statistical system of the country. Other major producers of official statistics are the Austrian National Bank, the Labour Market Service, the Main Association of Austrian Social Security Institutions and some ministries, including the Federal Ministry of Health.

Statistics Austria is the national statistical institute of Austria since 1829. By the new federal statistics act 2000 it became an institution under public law. Hence it is no longer under the direct supervision of the

Federal Chancellor, as before. Whereas the Economic Council and the Statistics Council supervise the principles of work as laid down in the law (objectivity, impartiality, reliability, scientific standards, relevance, timeliness, cost efficiency, transparency, coherence and steady improvement of statistics, confidentiality of data and reduction of response burdens), the Central Statistical Commission is an advisory board in subject matters and methodology, with numerous detached representatives from state and semi-official institutions (such as the social partners), and invited independent experts. One of its subsidiaries is the 32-member Advisory Board on Health Statistics. It brings together the main producers and users of health statistics.

Besides the necessary statistics to describe the demographic, social and economic situation of the country, Statistics Austria produces several **health statistics** series at regular and irregular intervals. It publishes a **Yearbook of Health Statistics** *(Jahrbuch der Gesundheitsstatistik)* that contains a wide variety of statistics from other producers as well.

Regarding the **health status** of the total population Statistics Austria produces the following regular statistics annually:

Statistics on **mortality and causes of death** (based on the civil registration act and ordinance); for infant deaths the birth information is linked routinely; the quality of the data is estimated to be very good due to the very low proportion of symptoms and unknown causes of death and the high rate of autopsy (about 25 per cent). In conjunction with the decennial population censuses since 1961 the data have been analysed regularly to describe the epidemiological situation at subregional and communal level (atlas of mortality and causes of death). At present the death certificate is under review to better adapt to EU and WHO recommendations on cause-of-death reporting.

Statistics on **births** including health relevant items such as crown-heel length, birth weight, Apgar, mode of delivery, gestational age, biological birth order, interval since last birth, and congenital malformation are collected based on the civil registration act and ordinance as well as on the midwives' act and the midwives' birth statistics ordinance.

Statistics of **cancer incidence** (based on the cancer statistics act and ordinance); since the 1970s Statistics Austria maintains a national cancer register where new cases are screened with old ones and linked routinely with the data on mortality and causes of death; the register is considered to be fairly complete since 1983 whereas measures to improve coverage and quality are continuing.

Statistics on **diagnoses and medical procedures at in-patients** as reported at hospital discharge (based on the health care documentation act); the data are considered to reflect the health status of the population although they are collected in the context of health care planning and funding; the data are coded in the hospitals and collected and analysed by the Federal Ministry of Health for administrative purposes; from there one set of the records goes to Statistics Austria; the FMH also maintains the classifications; as the social security number is lacking in the records, it is not possible to consolidate cases to persons.

Statistics on **road traffic accidents:** injured and killed persons (based on the road traffic act and relevant decrees); the data come from the public security administration (Federal Ministry of Interior) and are also used by the road safety board for analytical and preventive purposes.

Regarding the **health status** of the total population Statistics Austria carries out the following surveys at irregular intervals:

"Micro-census" interview **surveys on health and related themes** (based on an ordinance to the federal statistics act); the sample covers roughly 1 per cent of the population; whereas the basic programme is compulsory and dedicated mainly to employment and labour market issues, there is also a voluntary part with changing themes; in the past the health and related themes included:

Health interview survey 1973, 1978, 1983, 1991, 1999 (health status, health determinants and utilization of care)

Home, sports and leisure accidents 1970, 1980, 1989, 1997

Smoking behaviour 1972, 1979, 1986, 1997

Physical disabilities, impairments 1976, 1986, 1995, 2002

Living conditions of elderly people 1971, 1979, 1987, 1998

In the future, inspired by the EU and under EU regulations, it is expected that **health interview surveys** will be done more often and regularly. In addition, a new annual survey on income and living conditions (EU-SILC) will contain the **minimum European health module** (MEHM).

Statistics on **education of health professionals** (students at medical universities; schools and pupils of medico-technical services and

nursing) are part of general education statistics. Based on recent legislation concerning the documentation and the establishment of computerized registers in the educational system, the data can be linked with the help of the social security number to allow follow-ups from school start to graduations and to continuously assess the educational attainment of the population.

Statistics on **health expenditures** are produced as part of National Accounts Statistics according to OECD/ESA; they need however to be expanded substantially to meet EU requirements as defined in the SHA (System of Health Accounts).

Federal Ministry of Health

Statistics on **communicable diseases** notified new cases, monthly; the data come from the regional health authorities which collect notifications from the local health authorities; publication in the monthly Reports from the Health Administration *(Mitteilungen der Sanitätsverwaltung).*

Statistics on **AIDS** new cases and deaths, annually, monthly cumulated; the FMH maintains a register which allows classification according to risk situation, sex, age, and region; publication in the monthly Reports from the Health Administration *(Mitteilungen der Sanitätsverwaltung).*

Statistics on **hospital personnel, hospital doctors**;

Statistics on **hospitals and hospital beds**;

Statistics on **utilization of hospital beds** (bed-days, admissions, discharges, and stocks of patients, duration of stay):

For the three statistics mentioned last, the data on individual hospitals are collected by the FMH directly from the regional funds or from the owner of the hospital; the necessary tables for the Yearbook of Health Statistics and for international reporting are produced by the FMH and provided to Statistics Austria.

Statistics on **pharmacies** by type and region are established from the files kept by the FMH.

Narcotics monitoring: The FMH maintains a register that brings together all relevant personal data on drug users as well as material data on the drug situation; the data are collected, coded, verified by the FMH and

exchanged with the competent authorities, including a check with the cause-of-death data from mortality statistics. Anonymous data are reported to qualified users for scientific and action research. The annual report on narcotics-related deaths informs about intoxication, region, age, sex and cause of death.

Federal Ministry of Defence

Statistics on **conscripts:** tabular results on health and anthropometric examinations are supplied to Statistics Austria for inclusion in the Yearbook of Health Statistics.

Social security institutions

Main Association of Austrian Social Security Institutions

Statistical Handbook of Austrian Social Security (annual); an extract from the tables is also contained in Statistics Austria's Yearbook of Health Statistics. The main fields are:

Statistics on **staff away sick** (cases and days)

Statistics on approved **accidents at work**, accidents at travel to and from work, and **occupational diseases**

Statistics on **invalidity and incapacity for work** (stocks and new cases)

Statistics on **preventive care** (examinations)

Statistics on **health expenditures** (balance of social health insurance)

Professional organizations

Doctors' association

Statistics on **doctors** in professional occupation (general practitioners, specialists, dentists, doctors in professional training, resident doctors); the data are kept in the list of doctors who are entitled to carry out the medical profession.

Midwives' association

Statistics on **midwives** in professional occupation are based on the list of midwives.

Regional administrations

Statistics units are mainly users of regionalized national statistical data but may carry out regional surveys themselves; in the past this was e.g. the case within the framework of the Micro-census.

Health (**planning**) **divisions** are engaged with health monitoring and reports, partly in cooperation with the ÖBIG. They use the data they collect and report to the FMH as well as regionalized national statistics; regional multi-purpose surveys, e.g. “Life in Vienna”, are also used.

Regional registers:
Cancer registers exist in four regions, a medical birth register in one region, a register of congenital malformations in another region, and a perinatology register for the municipal hospitals in one more region.

Scientific institutes

Austrian Federal Health Institute (ÖBIG)

Statistics on **dentists;** irregular surveys on dental status

National registers on **In-Vitro-Fertilisation** and **Medical Products**

Documentation of **transplantations** (“ÖBIG-Transplant”)

REITOX Focal Point Austria; reporting on the **drug situation**

National hospital plan and high-tech equipment plan

„Institut Sicher Leben“

Statistics on **accidents** (EHLASS Austria)

Institutes for epidemiology, social medicine and related fields

Surveys and reports on the situation regarding **nutrition, alcohol and drug abuse, violence, mental health, and environmental hazards** (e.g. asbestos)

National reference centres in the European network for epidemiological **surveillance of infectious diseases**: Altogether there are 14 centres in Austria which cooperate in the network, covering 34 infectious diseases and agents.

The “Health econ” unit of the Institute for Advanced Studies in Vienna is a permanent structure for monitoring the **health care system.**

Research into **socioeconomic mortality differentials** is carried out by the Vienna Institute of Demography on the basis of merged census and death records data. The databases are created in close cooperation with Statistics Austria.

LAWS, RESPONSIBILITIES AND COMMUNICATION

The numbers in brackets refer to the Federal Gazette *(Bundesgesetzblatt)*

Epidemiology, health status and determinants

Epidemics act (No. 186/1950)

§1 Which diseases are notifiable (if not mentioned: ordinance)

§2 What is to be notified (illness, death, in certain cases suspect or expulsion of bacteria) to whom (District Medical Officer) within 24 hours

§3 Who must notify: 10 categories of persons including laymen

Epidemics ordinance (No. II/456/2001)

Additional notifiable communicable diseases: measles, legionella, viral haemorrhagic fever, BSE (deaths only), SARS (from 2003)

VD act (No. 152/1945)

Venerable diseases must be notified by the doctor to the DMO

Tb act (No. 127/1997)

§3 What is to be notified (illness to be treated or controlled and death)
§4 Who must notify: 6 categories of persons, all experts
§5 When and to whom: within 3 days to the DMO

AIDS act (No. 728/1993)

§2.1 What is to be notified (manifest illness, death)
§2.2 Who must notify (doctor in practice, medical director of hospital, doctor stating cause of death or pathologist)
§3.1 When and to whom: within one week in writing directly to FMH
§3.2 What is to be reported (initials of names, date of birth, sex, and in case of illness the relevant clinical and anamnestic data
§7 FMH is obliged to promote research and to inform *Länder* on actual epidemiological situation

Narcotics act (No. I/112/1997)

§24 Reporting of personal data to FMH from courts, prosecutors, district administration, FM of the Interior, medical director of hospital (on drug abuse) and coroner
§25 Communication of personal data from FMH to relevant authorities, and of anonymous data to relevant UN bodies, EU Commission and EU observatory in Lisbon (REITOX)

Cancer statistics act (No. 138/1969)

§1 Statistics on cancer ordered by reporting data on the person and the specification, localization and development of the disease
§2 Definition of cancer
§3 Each illness and each death must be reported to Statistics Austria, and the FMH has to specify the reports by ordinance
§4 Obligation of reporting is with the directors of hospitals, institutes for early reconnaissance of cancer, pathological and forensic institutes

Cancer statistics ordinance (No. 171/1978)

§1 Definition of particulars of reporting (form)
§2 Period and occasion of reporting: middle of the month following (1) hospital discharge or ambulant treatment, (2) each repetitive treatment, and (3) after autopsy if an earlier diagnosis of cancer is not confirmed

At present the cancer statistics law is under review.

Health care, resources and funding

Documentation in health care act (No. 745/1996)

§1 The holders of hospitals must record the **diagnoses of in-patients** according to the ICD and the **medical procedures** according to a catalogue edited by the FMH in compliance with the requirements of performance-oriented hospital funding.

§5 On the basis of the data received from the FMH Statistics Austria has to prepare annual statistics of hospital discharges by *Länder* and to publish them in the Yearbook of Health Statistics.

The FMH has to communicate the hospital reports upon request - if for the task necessary - to the Structural Fund, the *Länder,* the regional funds, the Main Association and the individual social insurance institutions. (The same applies to the structure and costs data.)

§§7, 8 The holders of hospitals must also document annually the **structure and costs of hospitals and their cost units** as regards personnel, medico-technical equipment, financial accounts, and additional performance indicators. The statistics and the cost unit plan are to be submitted to the *Land* Governor in March and April and at the same time as preliminary figures to the FMH.

§9 Further data including data on **out-patient services** may be ordered, primarily in anonymous form, from the institutions already having such data. The FMH may give the details by ordinance.

Documentation ordinances on structural and costs data for hospitals in regional funds (No. 785/1996) and private hospitals (No. 786/1996)

Funded hospitals have to report more data and via the *Land* Governor, whereas the private hospitals report directly to the FMH.

Hospitals and health resorts act (No. 1/1957)

§10 regulates the documentation of anamnestic data which must be preserved for 30 years, and the communication to administrative and judicial authorities.

§10a The *Land* Government must prepare a regional hospital plan which is in accordance with the national hospital plan and the high-tech equipment plan.

§56a With the FMH a **Structure Fund** has to be established.

§59a The Structure Fund has among others the following tasks: further development of the health system, hospital plan, quality assurance, planning the out-patient sector, and implementation and development of an **instrument of information and analysis** with the performance, cost, personnel and epidemiological data that are relevant for observation of the Austrian health system. These data must be accessible to the *Länder* (regional funds) and the social insurance institutions.

Fund for private hospitals act (No. I/42/2000) regulates the supply of data to the fund, irrespective of the obligation to report to the FMH.

STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

Strengths:

Despite the complicated organization of the health system with national and regional competencies, public and private health care providers, social and private health and accident insurance, it is cooperative and flexible enough to yield good overall performance, to allow arrangements for further development and to incorporate new tasks such as health promotion.

One of the backbones of the whole system is the administrative structure *"Mittelbare Bundesverwaltung"* (indirect federal administration) that was essentially created in the 1870s with clear responsibilities, from the Federal Minister to the *Land* Governor to the District Medical Officer to the local health officials, thus enabling both uniformity and at the same time adaptation to regional and local needs. In the opposite direction, the reporting, e.g. of epidemiological features, is without deviations and delay.

Another important element is the high degree of centralisation of the major health and related demographic and socioeconomic statistics. With the exception of hospital data the production of statistics is also very rapid, and access to the statistical data is good. Statistics Austria is also the clearinghouse for discussing the users' needs.

Weaknesses:

Analysis and interpretation of epidemiological data is considered to be rather scarce, apart from some traditional fields (Tb).

Apart from age, sex and region, there are not much data on health inequalities available.

Information on extra-mural services is deficient (data on freelance nurses, home care etc.). There is no health examination survey for the total population or large segments; e.g. statistics on examinations of children at school are missing after cancellation in 1996.

The hospital data on diagnoses and procedures are to a certain degree affected by the purpose of funding the hospitals, and hence are of reduced value for epidemiology. Furthermore, the catalogue of medical procedures is incompatible with WHO standards. In addition, the cross-sectional records of hospital discharges cannot be linked to provide cumulated information on patients' careers.

Dissemination of data among health professionals is lacking. Sometimes the users are not fully aware of the available sources (e.g. the "National Austrian Health Plan" neglects national cancer incidence data in favour of hospital discharge data on cancers).

Opportunities:

The principle of the new Federal Statistics Act to enhance the utilization of register data and to enable record linkages will in the long run lead to improvements both within existing health databases (hospital discharges, cancer cases) and between health and socioeconomic data (to form new databases by which in particular the issues of health inequalities could be better addressed).

The OECD/EU System of Health Accounts (SHA) which is still to be implemented will give new insight into the complex structure of health care and its funding and will potentially improve health planning.

Threats:

There are ideas to abolish the system of indirect federal administration. One may doubt whether another solution could be found to secure the necessary unity/uniformity of administrative measures, supervision and surveillance.

There is continuing antagonism between two or three *Länder* within the Vienna Region as regards utilization of central hospitals of Vienna and the funding of the respective costs.

Annex

Mortality Surveillance in Austria

Organizational chart of main organizations responsible for carrying out tasks related to mortality monitoring

Organizations by Fields of Activity and Territorial Collectivity (Levels of Policy Making and Administration according to the Constitution)

LEVEL	STATISTICS	PUBLIC HEALTH	RESEARCH
National Level *(Bund)*	Statistics Austria (Institution under Public Law)	Federal Ministry for Health and Women's Issues (BMGF): State Secretariat for Health	Austrian Federal Health Institute (ÖBIG) University Institutes (Epidemiology, Social and Environmental Medicine) 5 Forensic Institutes Other Institutes
Regional Level *(9 Länder)*	(Statistics Units of Land Governments)	Health Departments of Land Governments Health Planning Departments of Land Governments	Statistics Units of Land Governments
Communal Level *(2359 Gemeinden)*	1360 Civil Registries	Local Health Authorities (Necropsy and Burials)	

BMGF: Bundesministerium für Gesundheit und Frauen
ÖBIG: Österreichisches Bundesinstitut für Gesundheitswesen

Main functions of Mortality Surveillance by organizations

Collection of data at local level:

Medical examination of deceased persons is - according to the regional laws on necropsy and burials - the task of the communes in which the death occurs. This task is carried out by the hospital or by the coroner who is engaged by the commune. If the cause of death remains unclear or the public prosecutor suspects fault by third persons, one of the five Forensic Institutes are called upon.

The death certificate is uniform throughout the country despite the nine different regional laws on necropsy and burials. The reason is section 27 of the Civil Registration Act by which the flow of information regarding the cause of death is regulated at national level. The 1.360 Civil Registries are responsible for reporting the death to Statistics Austria together with the cause of death (although the cause of death is not entered in the death register).

Collection of data at national level:

There is no intermediate level. Statistics Austria receives the mortality data directly from the local Civil Registries. The data are also queried directly if necessary at the registrar, the hospital, the pathologist, the coroner, the physician, the police etc.

Coding:

Coding of mortality data is done by Statistics Austria, cause of death according to ICD-10 since 2002. Five persons who are medical laymen are employed for coding, of which three for the coding of medical entries. These have been trained by an extern pathologist and are supervised on a sample basis by an epidemiologist.

Transmission:

In fulfilling its obligation to publish the results of statistical operations, Statistics Austria publishes a Yearbook of Health Statistics which is also available as a pdf-file on the Internet, distributes unpublished mortality statistics to the main users, provides tailor-made tabulations on request and maintains a remote-access electronic database, *ISIS,* which allows the user to define his own aggregate data retrieval. Anonymous micro data for secondary analysis can be obtained by scientific users upon request. For research purposes, Statistics Austria also matches its own mortality database to that of a qualified client; data protection rules allow matching the data of the deceased with a database of persons alive, if requested by a university institute.

Analysis and interpretation of mortality data:

Besides the statistical data and the metadata, Statistics Austria provides also the necessary population data for analyzing general mortality and causes of death. The Austrian Atlas of Mortality which has been produced around each decennial census is a major piece of analysis carried out by Statistics Austria. The main external users of the data for analytical purposes and health reporting are the Regional Statistics Units and the ÖBIG which work for the Health Authorities at regional and national level. The scientific institutes at medical universities are of course in first instance called for interpretation of the data.

Mortality Surveillance System in Austria