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# Business Plan for OpAir Inc.





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## Table of Contents

Executive Summary .....	4
Mission statement .....	5
Goals and objectives.....	5
Organisational philosophy.....	5
Target market .....	5
Primary.....	5
Secondary.....	6
Industry position.....	6
Core strengths and competencies.....	7
Success factors .....	7
Background experience, skills and strengths .....	7
Legal form.....	8
Feasibility Statement .....	8
Sponsorship.....	8
Medical equipment .....	9
Consumable medical supplies .....	9
Non-medical equipment.....	9
Consumable non-medical supplies .....	9
Aircraft Procurement.....	9
Aircraft Fit-out .....	10
Aircraft Maintenance .....	12
Aircraft Operator's Certificate.....	12
Security on site .....	12
Foreign affairs.....	12
International relations .....	12
Communications .....	13
Emergency management.....	13
Marketing Plan .....	13
UNICEF and WHO – The Big Picture.....	13
Promotion.....	14
Proposed Location .....	14
Operational Plan.....	14
Mission Delivery.....	14
Legal Environment.....	14
Plant and Service Providers.....	15
Plant.....	15
Service Providers .....	15
Management of OpAir Inc.....	16
Financial Position .....	17
Start-up Expense and Capitalisation .....	17
Appendices .....	18
Appendix 1: Children's Morbidity and Mortality in Specific Countries .....	18
Vanuatu.....	18

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Samoa.....	18
Niue .....	18
Kiribati .....	19
Micronesia (FSM) .....	19
Timor - Leste .....	19
Laos .....	19
Myanmar .....	19
China.....	19
Fiji .....	20
Cook Islands .....	20
Palua.....	20
Philippines.....	20
Viet Nam .....	20
Cambodia.....	20
Maldives.....	21
Appendix B: World Health Organisation Estimates of Country Level Mortality .....	22
Vanuatu <i>cf</i> Australia .....	22
Samoa <i>cf</i> Australia .....	24
Niue <i>cf</i> Australia .....	26
Kiribati <i>cf</i> Australia.....	28
Myanmar <i>cf</i> Australia.....	30
Micronesia (FSM) <i>cf</i> Australia.....	32
Lao, Democratic Republic of <i>cf</i> Australia .....	34
China <i>cf</i> Australia .....	36
Fiji <i>cf</i> Australia .....	38
Palau <i>cf</i> Australia .....	40
Viet Nam <i>cf</i> Australia.....	42
Cook Islands <i>cf</i> Australia.....	44
Philippines <i>cf</i> Australia .....	46
Cambodia <i>cf</i> Australia .....	48
Maldives <i>cf</i> Australia .....	50
<b>Images and Figures</b>	
Image 1: Boeing 727-200 1981 Model.....	10
Image 2: Trelleborg inflatable shelter.....	10
Image 3: Internal view of Swiss Army Trelleborg inflatable shelter .....	11
Image 4: Trelleborg operating theatre interior.....	11
Image 5: Trelleborg operating theatre interior.....	11
Image 6: Indicative layout (Orbis aircraft) .....	12
<b>Tables</b>	
Table 1: Possible destinations .....	6



## Executive Summary

OpAir Inc. will be a registered charity that delivers medical services to developing nations and regional Australia by a team of committed volunteers.

Research of the UNICEF and WHO web sites indicate that millions of people throughout the world will benefit from medical interventions. The proponents of OpAir believe that one of the limiting issues to provide medical interventions is the inability of medical and other professionals to travel quickly to locations, have access to the necessary equipment, deliver intensive services, and return to Australia.

The successful launch of OpAir is completely dependent on the seed capital to enable the purchase and fit-out of the aircraft. OpAir will initially be enabled through ten major sponsorships of \$US 200,000 from companies for a total of \$US 2,000,000. However, a single beneficiary is the most desirable solution. Operational costs will be met by both donation of consumable equipment and material and the creation and selling of a “reality” television production.

The major issue to establish OpAir is the granting of Registered Charity status by the Australian Taxation Office as this will reduce the likelihood of corporate sponsors donating the seed capital to purchase and fit-out the aircraft.

OpAir will plan to conduct a mission, of approximately five days duration, once per month. The destinations will need to be planned approximately six (6) months in advance if surgical interventions are scheduled. This is due to the need to obtain case notes and medical data before committing to the surgery. This is extremely important as the surgeons, surgical team and instruments must be assembled to ensure successful outcomes result. The initial mission destinations planned will be those nations serviced by Pacific Blue and Polynesian Blue as there will be ready access to support if required.

Once OpAir is functional, this six month planning period can be utilised by planning missions that do not involve surgical interventions, and will have a focus of immunisations, and general health care.

While the focus is on the Asia-Pacific region, the use of a three engined aircraft will enable it to fly to any location in the world and could be deployed in African Nations after a journey of some 18 to 20 hours comprising of four stops.

The relative low utilisation of the aircraft will result in a 5 year life and it is anticipated that the three engines will be able to be sold for \$US 2,000,000 at that time. This will result in a pool of funds to purchase a replacement aircraft.

## **Mission statement**

Provide and maintain an aircraft based operating theatre to deliver medical services in lesser developed nations and regional Australia.

## **Goals and objectives**

The short term goals are:

- Increase the membership base
- Establish links with the Federal Government and developing nations by 2008-9
- Gain sponsorship for the procurement and fit-out of a Boeing 727 by 2008-9
- Establish funding streams for ongoing operational costs
- Document all procedures in 2008
- Procure and fit-out a Boeing 727 in 2008-9

The medium term goals are:

- Undertake flights to selected nations within 2009-10
- Utilise the aircraft as part of training for local health care providers

The longer term goals are:

- Establish a schedule for ongoing monthly flights

## **Organisational philosophy**

OpAir Inc. is a non-profit charitable organisation. It is comprised of people from a variety of professional disciplines who collaborate to achieve the objective of contributing to health related services in developing nations and regional Australia. Its governance is assured by a board of directors who volunteer their time. Professional advice is provided on a pro-bono basis.

The operation of OpAir Inc. will be undertaken in accordance using a quality management methodology. This will be enabled through the use of a robust IT platform.

Use of a jet aircraft to transport people and resources to developing nations requires both expertise and specialist resources. The expertise includes:

- Doctors, surgeons, anaesthetists,
- Allied health professionals e.g. podiatrists, anaesthetists technicians, critical care nurses, peri and post operative nurses
- Pilots and Cabin Crew
- Licensed Aircraft Maintenance Engineers
- Logistics professionals
- IT specialists

Supporting these professionals is the need for resources, these include:

- Medical equipment and consumable supplies
- Aircraft parts
- Aviation fuel
- Camping equipment such as portable power, tents, cooking equipment.

## **Target market**

### **Primary**

Developing nations and Australian regional areas where there is an identified opportunity to undertake interventions that contribute to health related services in developing nations and regional Australia being the preferred locations. The developing nations that will be the



primary focus will be those that are defined as developing nations by the Federal Government under the AusAid programme. However, if funding can be obtained, other nations are able to be visited. Include training.

While the primary aim of the aircraft is to transport medical support teams to a location, perform medical interventions; the aircraft would also be able to be used for aeromedical transportation.

A subsidiary outcome is the training of local people in skills held by the support people. For example, support people may be carpenters, water engineers, veterinarians, electricians; and consequently there will be an opportunity to assist local people in the development of these skills.

Locations will be limited to those that can accept a Boeing 727 aircraft. These may include, but are not limited to:

**Table 1: Possible destinations**

● Port Vila, Vanuatu	● Nadi, Fiji
● Apia, Samoa	● Rarotonga, Cook Islands
● Niue, Niue	● Noumea, New Caledonia
● Majuro, Kiribati	● Kosrae, FSM
● Pohnpei, FSM	● Chuuk, FSM
● Yap, FSM	● Koror, Palau
● Saipan, Guam	● Cebu, Philippines
● Dili, East Timor	● Danang, Viet Nam
● Vientiane, Laos	● Phnom Penh, Cambodia
● Mandalay, Myanmar	● Male, Maldives
● China	● Africa

The 727-200 aircraft has the advantage of three engines, integrated airstairs and it is possible to deliver services to African nations, particularly the sub-Sahara nations.

## Secondary

The aircraft could also be used in times of emergency, such as natural disasters. It would be able to fly into locations faster than propeller driven aircraft and commence surgical interventions within two (2) hours of landing as the operating theatre is contained within the aircraft. This use would be most likely requested by either the State or Federal governments.

## Industry position

The provision of a self-sufficient aircraft that has a medical operation capability is not known to exist anywhere in the world and definitely not in the Asia-Pacific region. The operation will be a National asset and is unique within Australia. The Australian Defence Forces have the capability to establish medical facilities; however these are transported to locations and then set up on the ground as field hospitals. The ground based deployment methodology is suitable for longer term stays, compared to the aircraft based facility which is more quickly deployed.

The Orbis Eye Hospital has been based in the UK since 1982. The focus of this organisation is to correct eye defects.

The provision of aid to developing nations is already undertaken by various agencies such as the Red Cross, World Vision, etc. It is acknowledged that the amount of funding for "aid"



work is limited by either government or public donations. This aircraft and organisation is seen as an adjunct to the existing organisations and they will approach to help support their existing goals and networks.

## **Core strengths and competencies**

The core strength is the provision of a modern operating theatre in a jet aircraft providing a wide range of surgical procedures and staffed by professionals able to be quickly deployed in emergency situations or pre-planned missions.

The OpAir Inc. organisation is comprised of committed volunteers from various professions. One of the strengths is that the success is not reliant on a vital few but rather many people all contributing a small amount of time to achieve a greater collective outcome. The achievement of the outcome of a successful flight to a destination, is enabled via a web-based IT system, which has been donated to OpAir Inc..

## **Success factors**

The establishment of OpAir Inc. as a Charitable Organisation is key to facilitating the initial funding for the purchase and funding of the aircraft. The ongoing cost of the operation is dependent upon funding for consumable items such as fuel, maintenance, and disposable medical equipment.

Key to establishing the funding sources is a robust plan and maintaining a high profile in corporate, government, and the public arenas.

The development and maintenance of procedures is an important aspect of the operation due to drawing together of a number of disciplines from essentially a volunteer base.

Because the use of volunteers reduces the costs significantly, there is also a significant risk that when people volunteer to work on a flight, that procedures will have changed since the last flight they undertook. Additionally, medical operations require a team of people who all know and understand the procedure that will be performed. Consequently, procedures must be understood and agreed before flights are undertaken in order to minimise risk to the patient, the operation, and optimise use of the time at the location.

- Ongoing financial support
- Strong volunteer network
- Strong ties with Government agencies
- Strong ties with non-government organisations
- Provision of a multi-purpose missions

Key strengths of the operation are the ability to rapidly travel to locations and quickly deploy as a functional medical facility. This ability will enable government agencies to utilise the aircraft in times of emergency.

## **Background experience, skills and strengths**

OpAir Inc. is comprised of a dedicated group of professionals who developed the concept of providing medical services in developing nations. The structure of OpAir Inc. is such that it will not be reliant on this group to sustain its ongoing operation. OpAir Inc. will be comprised of:

- Aviation professionals
- Medical professionals from practice and academia
- Support people

The aviation professionals include:

- Pilots
- Cabin Crew
- Licence Aircraft Maintenance Engineers



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The medical professionals include:

- Surgeons
- Nurses – theatre and post operative care
- Anaesthetists
- Technicians

The support people include:

- Logisticians
- Camp managers – cooks, maintenance

## Legal form

OpAir Inc. will be established as a non-profit charitable organisation in Australia. It will be administered by a Board of Directors in accordance with a Constitution.

This form has been selected to maximise the probability and size of donations as well as minimising tax.

## Feasibility Statement

The realisation of delivering medical and health services in developing nations and regional Australia is not a simple process. It will be a complex system reliant upon a multi-disciplinary team.

Formal and informal meetings indicate that there is a real need for OpAir. People and groups who have indicated that the need exists and possible sources of funding include:

- Church Groups - Salvation Army, Assembly of God, Uniting Church, Baptist, Anglican, and Catholic
- Community Service Organisation – Soroptomist International
- Engineers Without Borders
- Queensland University of Technology – Health and Biomedical Faculty
- Bond University – Medical Faculty
- Papua New Guinea's Ambassador to Australia
- Portuguese Ambassador to Australia

## Sponsorship

Because the operation is reliant upon the donation of either money or material, the ongoing success of the operation is highly dependent delivery successful outcomes and the public acknowledgment of sponsors.

Ten major sponsors will be sought and a sponsorship of US\$ 200,000 each will be sought. Acknowledgement will be in the form of a corporate logo on the side of the aircraft and also in all correspondence and communication media. However, a single beneficiary is the preferable.

Donors will also be sought and acknowledged in communication media. Flowbiz Pty Ltd has already donated Agile Adaptive Automation software and offered to host a web site. This donation is not insignificant.

Interest has been expressed by TransFilm in Victoria to document the establishment of OpAir Inc. and document activities in various locations. It is anticipated that this will be a valuable revenue stream for ongoing operations.



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## Medical equipment

Medical equipment will be a major procurement item. Equipment suppliers may be willing to donate equipment and/or alternatively hospitals may be willing to donate equipment that is being replaced. Equipment includes:

- Medical instruments
- Medical gas equipment
- Recovery room equipment
- Operating table and lights
- Autoclave and sterilisation equipment
- Radiographic equipment

## Consumable medical supplies

In addition to the non-consumable medical equipment, the procurement of consumable medical supplies is key to the success of the ongoing operation. Equipment includes:

- Medical gases
- Bandages, swabs, sutures
- Drugs

## Non-medical equipment

Due to the likelihood of infrastructure not being available in some locations or the utilisation of existing infrastructure being onerous on the local population, the aircraft must be able to be self-sufficient to accommodate and support the operation's people. Consequently, transportable accommodation, food and water must be taken. Equipment includes:

- Tents
- Generators
- Cooking equipment
- Air conditioners for the operating theatre and recovery room

## Consumable non-medical supplies

Each flight will consume various items, and with normally 45 but extendable to 80 people for each flight, and the possibility of needing to nourish recovering patients, food and water will be a regular consumable item. One of the major consumables will be aviation fuel. Supplies include:

- Aviation fuel
- Nourishment – food, water
- Aircraft parts
- Camp equipment – generators, cooking supplies

## Aircraft Procurement

The Boeing 727, see Image 1: Boeing 727-200 1981 Model, was chosen as it is a three (3) engine aircraft and is able to be flown overseas with minimal regulatory conditions as opposed to a twin-engined aircraft. It is also a long bodied aircraft with ventral stairs as well as front stairs.

A specialist in aircraft procurement is actively sourcing a suitable Boeing 727. As at June 2006, a suitable aircraft has been located in Dodson International, USA. This aircraft will be able to fly for 5 years before the next major maintenance check. At this time it is expected that the aircraft could be scrapped and the engines sold for US\$ 2,000,000; thus making the initial procurement cost neutral.



**Image 1: Boeing 727-200 1981 Model**

## **Aircraft Fit-out**

Aircraft are designed to be either a passenger or freight configuration. The modification of a passenger configuration is a cheaper and simpler conversion than that of a freight configuration. It is essential that the establishment and maintenance of a sterile operating environment is facilitated, consequently both the fit-out and air flows within the aircraft are correctly designed to minimise infection. Image 4 shows the configuration of the Orbis aircraft which is similar to that planned for the 727-200. However, it is intended to reverse the layout and have patients enter via the ventral stairs (rear stairs), then proceed forward into the operating theatre, then forward again to critical care beds or to recovery beds forward of these. The patient would then exit from the front door. A system will be necessary to transport the patient horizontally down from the aircraft to minimise “damage” from surgery,

As part of the fit-out, electrical, compressed air, suction lines and medical gas lines will need to be included in accordance with Australian Standards. The operating theatre is envisaged to be a Trelleborg inflatable unit within the aircraft. Alternatively, a fixed wall system could be installed though this is likely to reduce the versatility of the aircraft configuration.

Reference site: <http://www.trelleborg.com/protective/>



**Image 2: Trelleborg inflatable shelter**



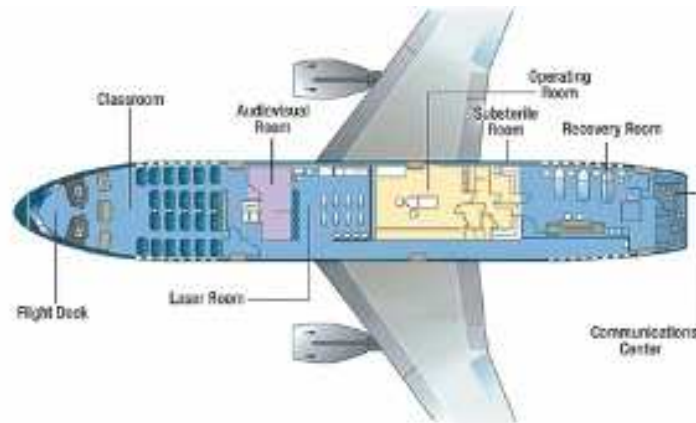
**Image 3: Internal view of Swiss Army Trelleborg inflatable shelter**



**Image 4: Trelleborg operating theatre interior**



**Image 5: Trelleborg operating theatre interior**



**Image 6: Indicative layout (Orbis aircraft)**

## **Aircraft maintenance**

The maintenance of the aircraft is dictated by Boeing maintenance procedures. There are a number of requirements.

- Daily check
- Check “A” every 120 flying hours – approximately 1 day duration
- Check “B” every 480 flying hours – approximately 2 days duration

These checks will be undertaken by Licensed Aircraft Maintenance Engineers (LAME). A number of LAME's have already volunteered to undertake this work. Access to a hangar and workshop facilities are preferred and are yet to be sourced. Approaches to various aircraft maintenance providers such as JetCare are yet to be undertaken.

## **Aircraft Operator's Certificate**

The regulatory environment within Australia requires airline operators that operate for profit require certification by the Civil Aviation Safety Authority (CASA). This certification will not be required as the operation will be a non-profit organisation that is operating private flights. Initial informal discussions with CASA indicate that no AOC is required.

## **Security on site**

While the operation is humanitarian and therefore would be assumed to be welcomed by nations, it could be viewed as a potential target for groups seeking to publicise their cause by interfering with the aircraft and/or its' people.

There is also the potential that people who are not scheduled to receive medical care could also interfere with the aircraft and/or its' people.

Exiting a location after one week could also be problematic if the need for medical care is of such a magnitude that the local population could prevent the aircraft from departing.

Arrangements will be necessary to assess the potential security threat and possibly engage local security providers.

## **Foreign affairs**

### **International relations**

Aligned with the security of the operation, is the need to maintain established international relationships with nations who will benefit from this operation. Consequently, a close

relationship with the Department of Foreign Affairs will be essential for the success of the operation.

One of the key success factors is the establishment of links with medical professionals in the nations to be visited. This will enable the medical teams to determine the procedures to be performed before departure and provision the aircraft accordingly. The Department of Foreign Affairs and AusAid are well placed to facilitate the establishment of these links.

## **Communications**

A robust communications network from the operation and Australia is an essential component. This is necessary in the event of unforeseen events occurring such as medical complications requiring specialist advice, contact with agencies, etc.

A telecommunications company such as Telstra or Optus that provides and supports satellite phones or other communications equipment would be a valued donor.

## **Emergency management**

As noted earlier, there is potential for security related events to occur. In addition to this type of event, it is possible that medical emergencies will arise. These emergencies may require transporting the patient/s back to Australia for additional care. The facilitation of this will require assistance by the Department of Immigration and also the Department of Foreign Affairs.

## **Marketing Plan**

### **UNICEF and WHO – The Big Picture**

More than 10 million children under five years of age, nearly half of them in the first weeks of life, die every year of preventable diseases and malnutrition.

In some developing countries, the toll is so harsh that more than one in five children die before they reach their fifth birthday. Many of those who do survive are unable to grow and develop to their full potential. Most deaths result from five causes, or a combination of them: acute respiratory infections (ARI), diarrhoea, measles, malaria and malnutrition. Poverty and the failure to ensure universal access to basic social services are to blame.

Complications related to pregnancy and childbirth kill more than half a million women each year - more than one every minute -and injure and disable many more.

Together with governments, humanitarian agencies, civil and community leaders, families and children themselves, UNICEF is addressing these threats. Some recent progress:

- The under-five mortality rate in developing countries dropped globally by 14 per cent between 1990 and 2000.
- Polio cases fell from 350,000 per year in 1988 to only 483 in 2001.
- Iodine deficiency has been cut by two-thirds through a global campaign for salt iodization supported by UNICEF and its partners.
- Immunization rates were stable throughout the 1990s, covering 70 per cent of children. However, coverage rates in sub-Saharan African nations are often below 50 per cent.
- Family planning has advanced, with more than 700 million women -- two thirds of all women of reproductive age married or living in a stable relation -- using a method of contraception.

Yet immense obstacles stand in the way of ensuring that every child gets the best start in life. The HIV/AIDS pandemic has reached catastrophic proportions in several parts of the world,





unravelling decades of hard-won gains in child survival and development, especially in sub-Saharan Africa.

Gender inequity and discrimination persist. Armed conflicts that kill and injure children are proliferating and chronic poverty remains the greatest obstacle to fulfilling the rights of children. Half of humanity remains desperately poor, with 3 billion people subsisting on less than \$2 a day.

Refer to Appendix 1: Children's Morbidity and Mortality in Specific Countries and Appendix B: World Health Organisation Estimates of Country Level Mortality.

## **Promotion**

Presentations to various groups at Universities, and associations have already been undertaken and the level of interest and support for OpAir has been overwhelming.

The web site will be one vehicle for ongoing promotion of OpAir.

National promotion will be undertaken through approaches to television networks.

TransFilm based in Victoria has indicated it is willing to provide the vector for a reality television show which will be sold to television networks. They have also indicated that if OpAir is utilised to respond to natural disasters they will also be able to deliver news feeds to television networks.

## **Proposed Location**

The aircraft could be based in a number of locations when it is not on a mission. Storage of three weeks between flights would be necessary. During this time the aircraft would be "locked up". Before each operation, it will be necessary to access the aircraft to pre-check equipment before flight and also load consumable items. The preferred region for storage is South East Queensland and four locations are suitable. As the operation is non-profit, the airports will be approached to donate the parking area at no cost.

- Brisbane Airport
- Maroochydore Airport – concrete pads for the wheels and tracks to access the pads will be necessary
- Coolangatta Airport – concrete pads for the wheels and tracks to access the pads will be necessary
- Amberley RAAF Base

## **Operational Plan**

### **Mission Delivery**

Because OpAir will be operated by volunteers, who may fly on a mission once each year; it is critical that procedures are well documented, updated and readily accessible. FlowBiz, a Queensland based software company has donated a software platform that will enable the documenting, maintenance and distribution of procedures. A New Zealand business partner of FlowBiz, Tranzsoft has also offered to host a web site and is currently working with IBM to provide the hardware and technical server support and backup.

### **Legal Environment**

The legal environment that OpAir will function in is complex as it will operate in other nations. Issues that will need to be addressed include:

- Registration of Medical Practitioners in Australia and in other countries
- Licensing of pilots
- Passports and visas
- Immigration

- Constitution accepted/approved by Government and Australian Taxation Office
- Charitable status given by the Australian Taxation Office

## Plant and Service Providers

## Plant

Where ever possible suppliers of material will be sought on the basis of a donation, either one-off or ongoing. The following list is indicative of the required material and potential suppliers.

- Medical equipment
- Medical compressed air
- Disposable medical equipment
- Food
- Accommodation
- Fuel
- Aircraft parts
- Operating theatre
- Clothing

## Service Providers

A number of service providers will need to be engaged in order to provide services on an as-required basis. The following is a list of services and actual or potential service providers.

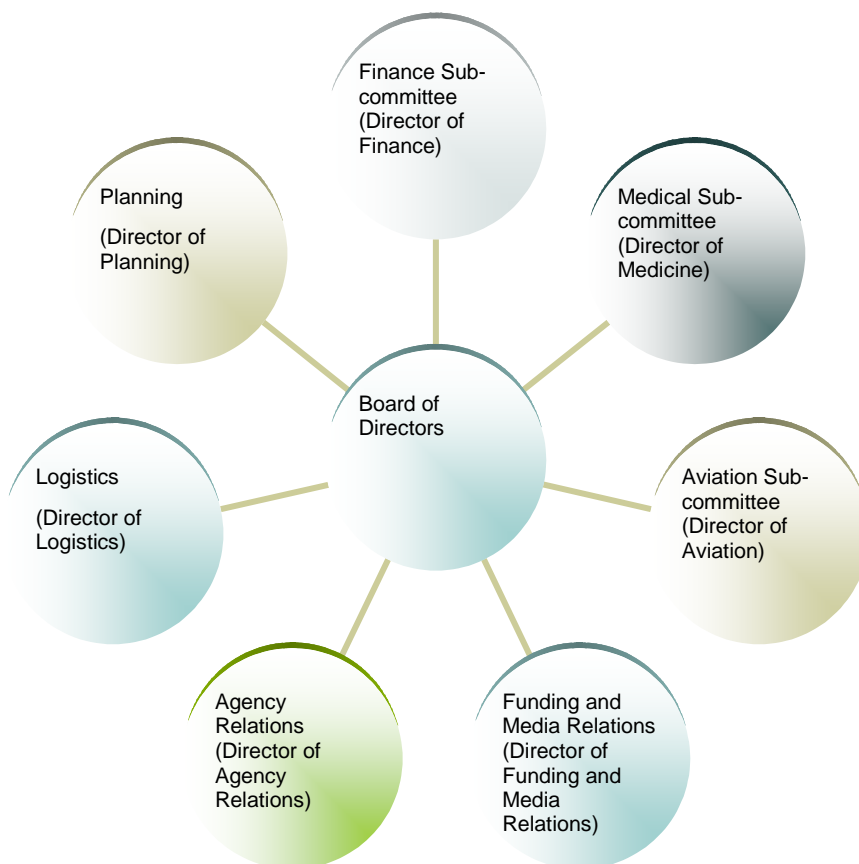
- 🔴 Provision of visas Department of Immigration

## Management of OpAir Inc.

OpAir Inc. will be governed by a Board of Directors elected by the members of OpAir Inc. with the structure of the Board shown below. A constitution has been established that documents specific responsibilities and procedures to be followed in the management of the assets and operations. The Board of Directors will not receive any remuneration.

Chair	Deputy Chair
Secretary	Director of Finance
Director of Medicine	Director of Aviation
Director of Funding and Media Relations	Director of Agency Relations
Director of Logistics	Director of Planning

The Board will have the power to establish sub-committees to manage the various functions and these sub-committees will report activities to the Board and have the decisions ratified by the Board. The sub-committees will be chaired by the respective director and be supported by members.







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## **Financial Position**

OpAir Inc. is a green-fields operation with no capital or liquid assets.

The target number of 500 members, being 250 medical professionals and 250 aviation and support people, is expected to generate a cash asset of \$50,000.

The purpose of these membership fees is twofold. Firstly, the fees will be used to demonstrate to sponsors that a cash reserve exists and there is personal commitment to the success of the operation. Secondly, the fees will indicate to the Civil Aviation Safety Authority (CASA) that the aircraft is operated privately and so will not need to be operated under an Air Operator's Certificate (AOC).

The majority of start-up funds will be through sponsorship and ongoing monthly flights funded by donations or by negotiation with governments or other agencies to undertake specific flights.

## **Start-up Expense and Capitalisation**

The capital to purchase, undertake the maintenance "D" check and fit-out will be raised through tax deductible donations from ten (10) major sponsors. Each sponsor will be personally approached and asked to support OpAir Inc. with a donation of US\$200,000 each. Sponsors will have their corporate logo displayed on each side of the fuselage.

The funds to maintain ongoing operations will be raised by donations from individuals and corporations. Aviation fuel will be a major cost and fuel companies will be approached to support the operation by donating fuel for each flight.

## Appendices

### Appendix 1: Children's Morbidity and Mortality in Specific Countries

The following data was sourced from the UNICEF web site:

<http://www.unicef.org/infobycountry/index.html>

#### Definitions of the indicators

**Under-five mortality rate** - Probability of dying between birth and exactly five years of age expressed per 1,000 live births.

**Infant mortality rate** - Probability of dying between birth and exactly one year of age expressed per 1,000 live births.

**GNI per capita** - Gross national income (GNI) is the sum of value added by all resident producers plus any product taxes (less subsidies) not included in the valuation of output plus net receipts of primary income (compensation of employees and property income) from abroad. GNI per capita is gross national income divided by mid-year population. GNI per capita in US dollars is converted using the World Bank Atlas method.

**Life expectancy at birth** - The number of years newborn children would live if subject to the mortality risks prevailing for the

**Adult literacy rate** - Percentage of persons aged 15 and over who can read and write.

**Net primary school enrolment/attendance** - Derived from net primary school enrolment rates as reported by UNESCO/UIS (UNESCO Institute of Statistics) and from national household survey reports of attendance at primary school.

**Income share** - Percentage of income received by the 20 per cent of households with the highest income and by the 40 per cent of households with the lowest income.

#### Vanuatu

##### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	94
Total adult literacy rate (2000-2004*)	74
Life expectancy at birth (years) (2004)	69
GNI per capita (US\$) (2004)	1340
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	6
Total population (thousands) (2004)	207
Infant mortality rate (under 1) (2004)	32
Under-5 mortality rate (2004)	40
Under-5 mortality rank	79

#### Samoa

##### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	98
Total adult literacy rate (2000-2004*)	99
Life expectancy at birth (years) (2004)	71
GNI per capita (US\$) (2004)	1860
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	5
Total population (thousands) (2004)	184
Infant mortality rate (under 1) (2004)	25
Under-5 mortality rate (2004)	30
Under-5 mortality rank	95

#### Niue

##### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	99
Total adult literacy rate (2000-2004*)	-
Life expectancy at birth (years) (2004)	-
GNI per capita (US\$) (2004)	-
Annual no. of under-5 deaths (thousands) (2004)	-
Annual no. of births (thousands) (2004)	0
Total population (thousands) (2004)	1
Infant mortality rate (under 1) (2004)	-
Under-5 mortality rate (2004)	-
Under-5 mortality rank	-

## Kiribati

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	-
Total adult literacy rate (2000-2004*)	-
Life expectancy at birth (years) (2004)	-
GNI per capita (US\$) (2004)	970
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	2
Total population (thousands) (2004)	97
Infant mortality rate (under 1) (2004)	49
Under-5 mortality rate (2004)	65
Under-5 mortality rank	66

## Timor - Leste

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	-
Total adult literacy rate (2000-2004*)	-
Life expectancy at birth (years) (2004)	56
GNI per capita (US\$) (2004)	550
Annual no. of under-5 deaths (thousands) (2004)	4
Annual no. of births (thousands) (2004)	45
Total population (thousands) (2004)	887
Infant mortality rate (under 1) (2004)	64
Under-5 mortality rate (2004)	80
Under-5 mortality rank	56

## Myanmar

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	80
Total adult literacy rate (2000-2004*)	90
Life expectancy at birth (years) (2004)	61
GNI per capita (US\$) (2004)	220
Annual no. of under-5 deaths (thousands) (2004)	105
Annual no. of births (thousands) (2004)	992
Total population (thousands) (2004)	50004
Infant mortality rate (under 1) (2004)	76
Under-5 mortality rate (2004)	106
Under-5 mortality rank	45

## Micronesia (FSM)

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	-
Total adult literacy rate (2000-2004*)	-
Life expectancy at birth (years) (2004)	68
GNI per capita (US\$) (2004)	1990
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	3
Total population (thousands) (2004)	110
Infant mortality rate (under 1) (2004)	19
Under-5 mortality rate (2004)	23
Under-5 mortality rank	110

## Laos

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	62
Total adult literacy rate (2000-2004*)	69
Life expectancy at birth (years) (2004)	55
GNI per capita (US\$) (2004)	390
Annual no. of under-5 deaths (thousands) (2004)	17
Annual no. of births (thousands) (2004)	204
Total population (thousands) (2004)	5792
Infant mortality rate (under 1) (2004)	65
Under-5 mortality rate (2004)	83
Under-5 mortality rank	53

## China

### Basic Indicators

Under-5 mortality rank	93
Under-5 mortality rate (2004)	31
Infant mortality rate (under 1) (2004)	26
Total population (thousands) (2004)	1307989
Annual no. of births (thousands) (2004)	17372
Annual no. of under-5 deaths (thousands) (2004)	539
GNI per capita (US\$) (2004)	1290
Life expectancy at birth (years) (2004)	72
Total adult literacy rate (2000-2004*)	91
Net primary school enrolment/ attendance (%) (1996-2004*)	99

## Fiji

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	100
Total adult literacy rate (2000-2004*)	93
Life expectancy at birth (years) (2004)	68
GNI per capita (US\$) (2004)	2690
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	19
Total population (thousands) (2004)	841
Infant mortality rate (under 1) (2004)	16
Under-5 mortality rate (2004)	20
Under-5 mortality rank	120

## Palau

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	96
Total adult literacy rate (2000-2004*)	-
Life expectancy at birth (years) (2004)	-
GNI per capita (US\$) (2004)	6870
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	0
Total population (thousands) (2004)	20
Infant mortality rate (under 1) (2004)	22
Under-5 mortality rate (2004)	27
Under-5 mortality rank	101

## Viet Nam

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	96
Total adult literacy rate (2000-2004*)	90
Life expectancy at birth (years) (2004)	71
GNI per capita (US\$) (2004)	550
Annual no. of under-5 deaths (thousands) (2004)	38
Annual no. of births (thousands) (2004)	1644
Total population (thousands) (2004)	83123
Infant mortality rate (under 1) (2004)	17
Under-5 mortality rate (2004)	23
Under-5 mortality rank	110

## Cook Islands

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	-
Total adult literacy rate (2000-2004*)	-
Life expectancy at birth (years) (2004)	-
GNI per capita (US\$) (2004)	-
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	0
Total population (thousands) (2004)	18
Infant mortality rate (under 1) (2004)	18
Under-5 mortality rate (2004)	21
Under-5 mortality rank	113

## Philippines

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	88
Total adult literacy rate (2000-2004*)	93
Life expectancy at birth (years) (2004)	71
GNI per capita (US\$) (2004)	1170
Annual no. of under-5 deaths (thousands) (2004)	69
Annual no. of births (thousands) (2004)	2026
Total population (thousands) (2004)	81617
Infant mortality rate (under 1) (2004)	26
Under-5 mortality rate (2004)	34
Under-5 mortality rank	88

## Cambodia

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	65
Total adult literacy rate (2000-2004*)	74
Life expectancy at birth (years) (2004)	57
GNI per capita (US\$) (2004)	320
Annual no. of under-5 deaths (thousands) (2004)	60
Annual no. of births (thousands) (2004)	422
Total population (thousands) (2004)	13798
Infant mortality rate (under 1) (2004)	97
Under-5 mortality rate (2004)	141
Under-5 mortality rank	26

## Maldives

### Basic Indicators

Net primary school enrolment/ attendance (%) (1996-2004*)	92
Total adult literacy rate (2000-2004*)	96
Life expectancy at birth (years) (2004)	67
GNI per capita (US\$) (2004)	2510
Annual no. of under-5 deaths (thousands) (2004)	0
Annual no. of births (thousands) (2004)	10
Total population (thousands) (2004)	18
Infant mortality rate (under 1) (2004)	35
Under-5 mortality rate (2004)	46
Under-5 mortality rank	74

## Appendix B: World Health Organisation Estimates of Country Level Mortality

Vanuatu *cf* Australia

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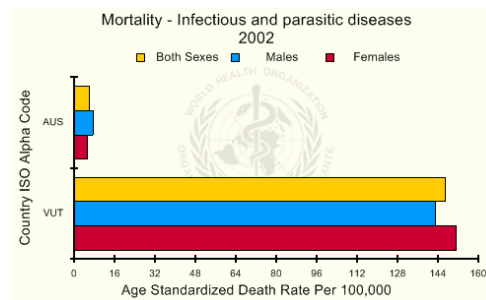
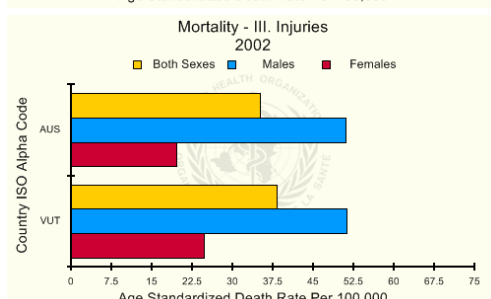
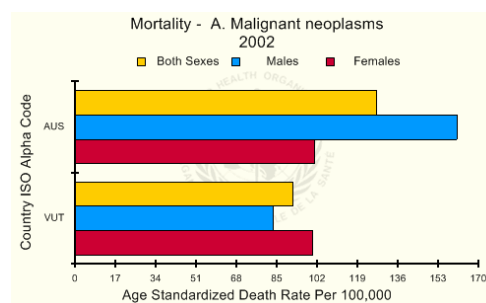
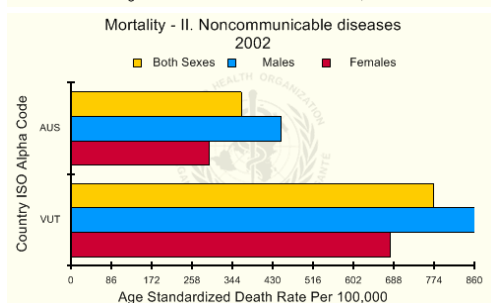
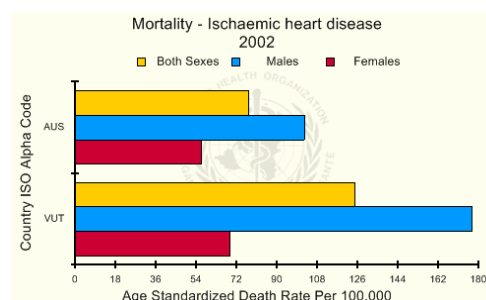
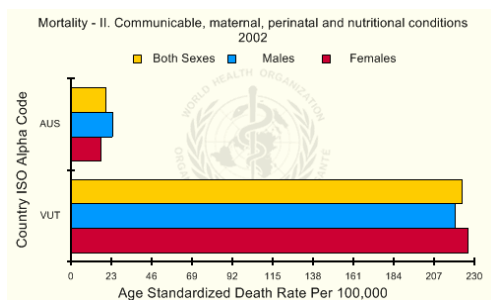
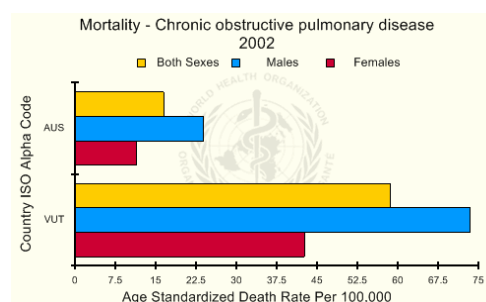
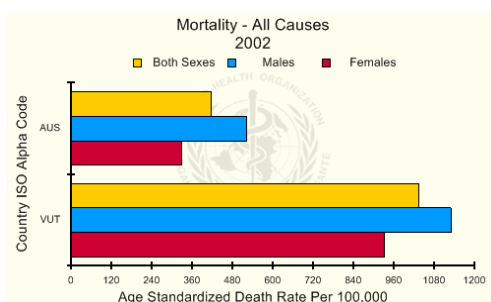
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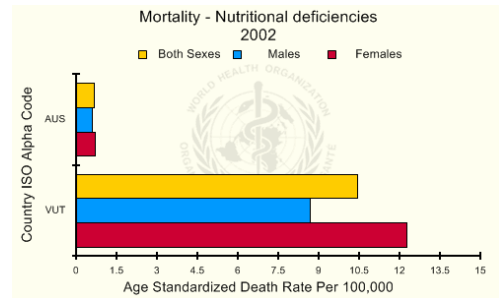
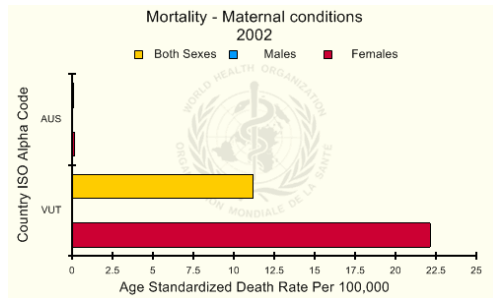
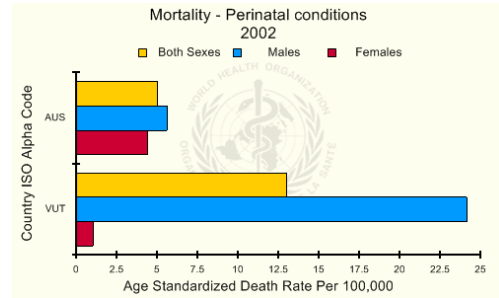
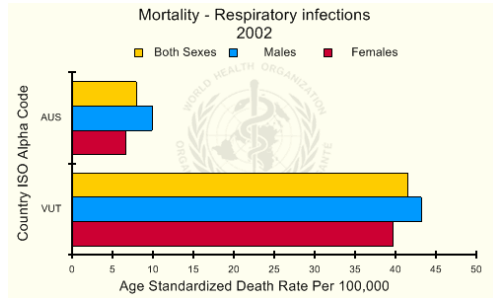
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**Urban/Rural:**both urban and rural populations

**Notes:**





## Samoa cf Australia

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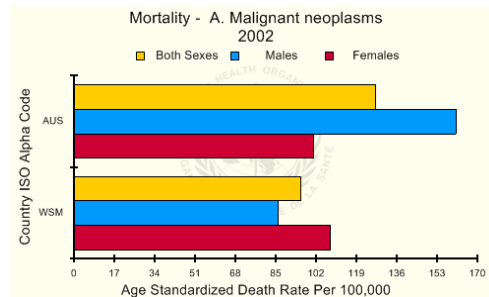
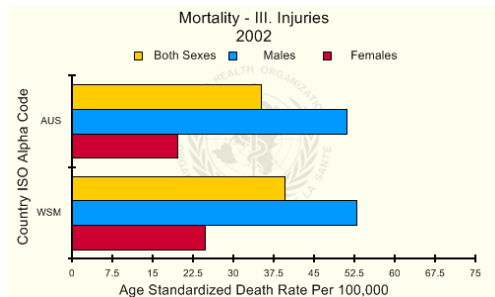
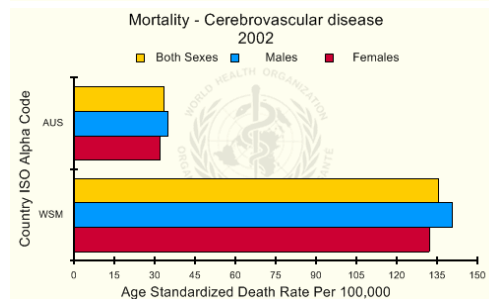
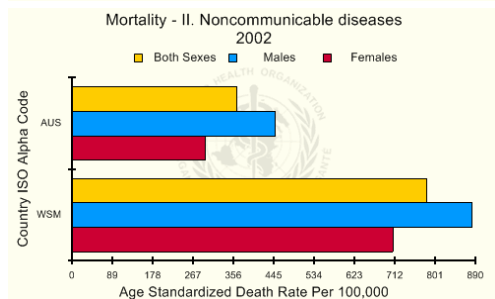
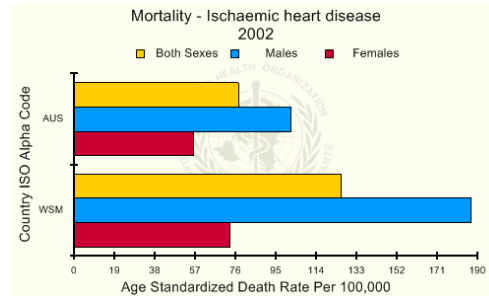
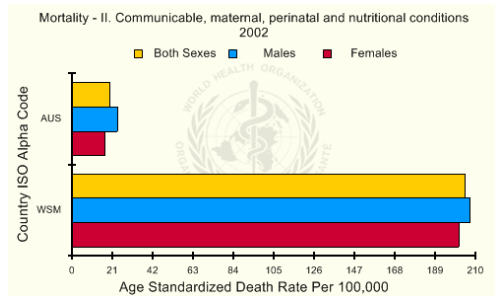
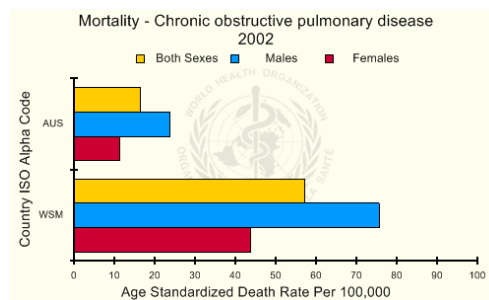
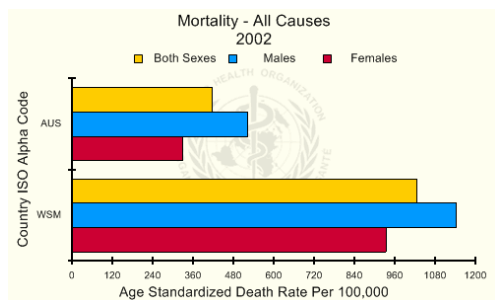
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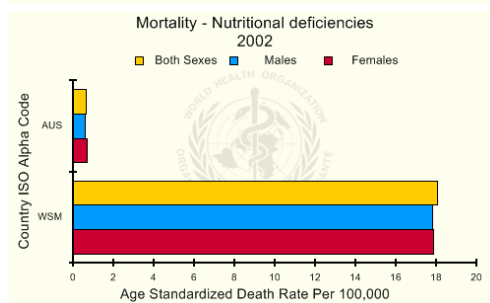
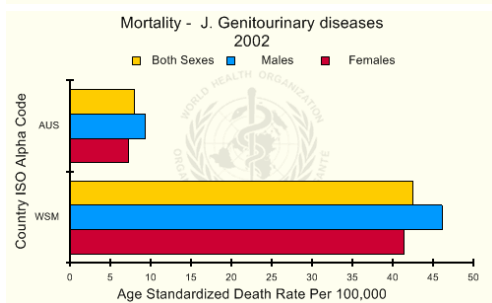
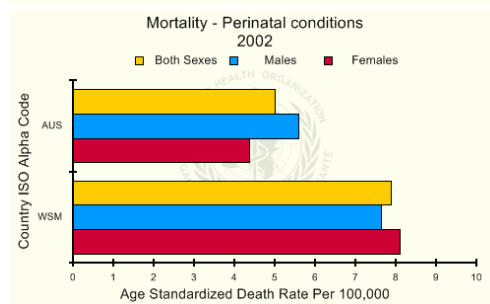
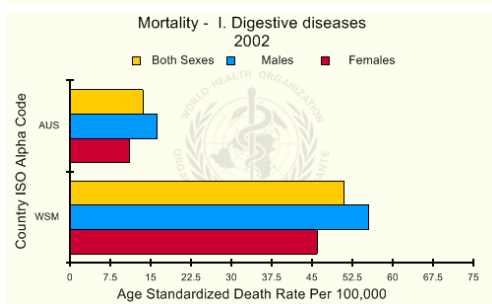
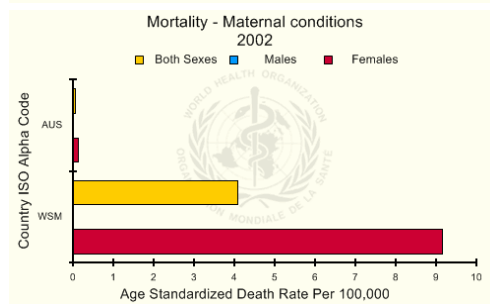
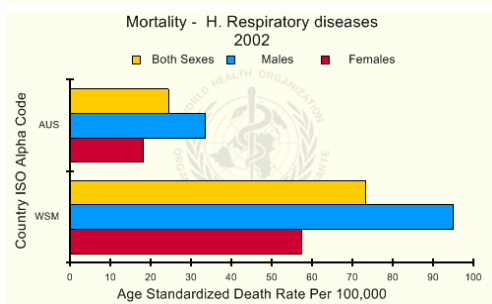
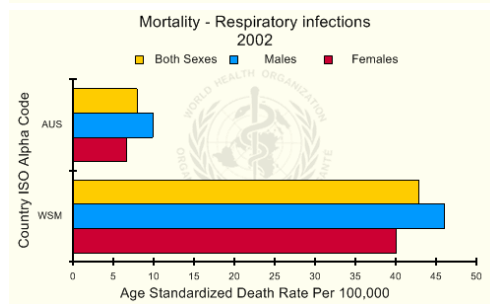
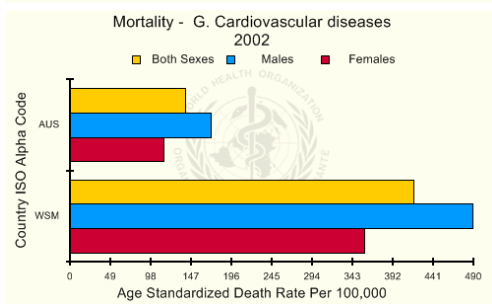
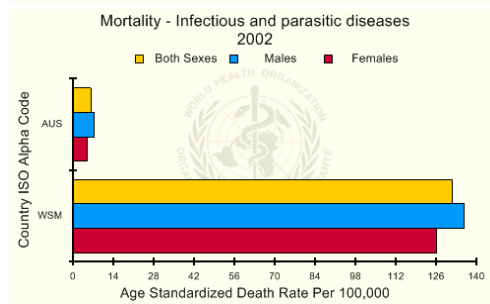
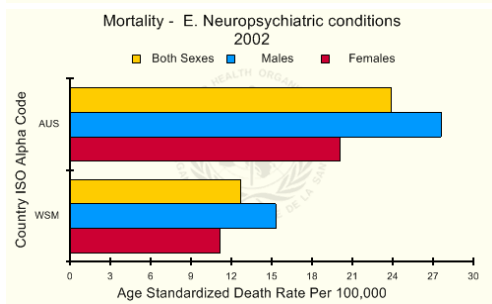
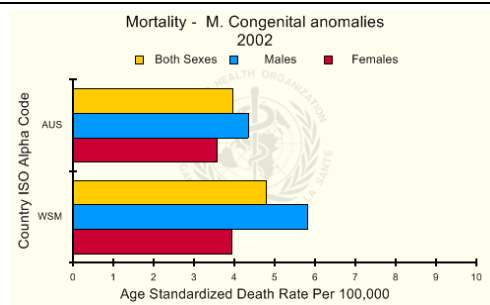
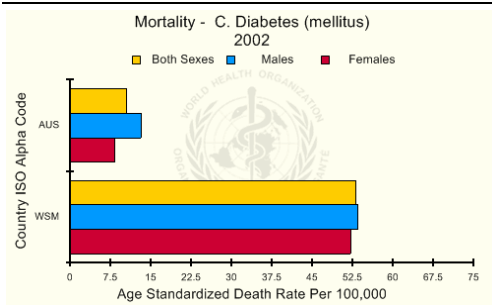
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**Urban/Rural:**both urban and rural populations

### Notes:







## Niue cf Australia

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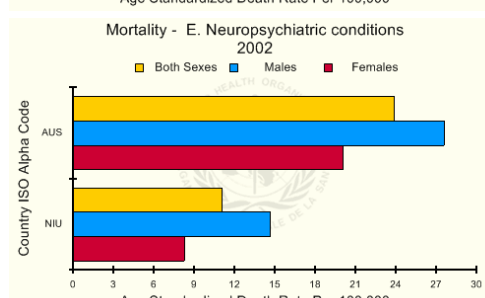
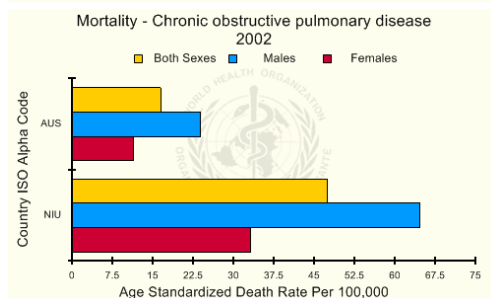
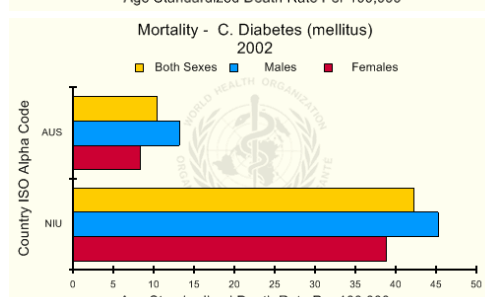
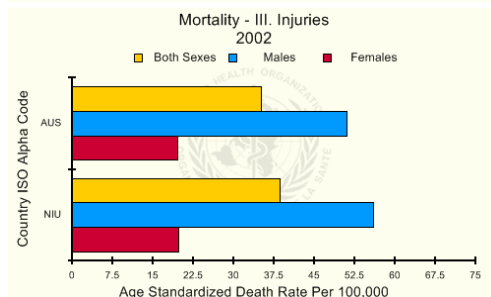
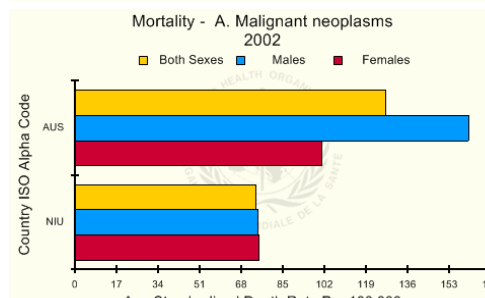
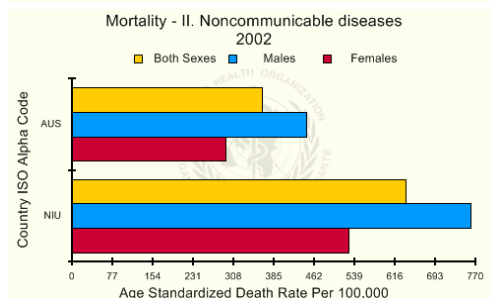
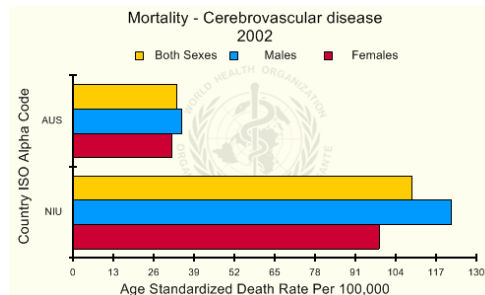
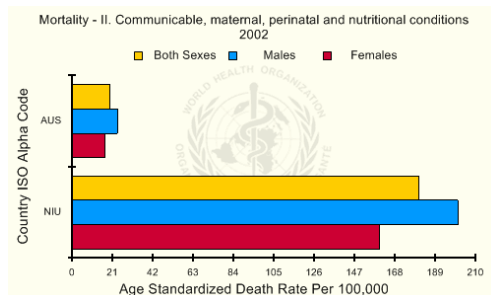
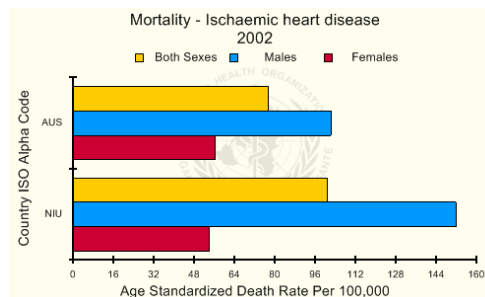
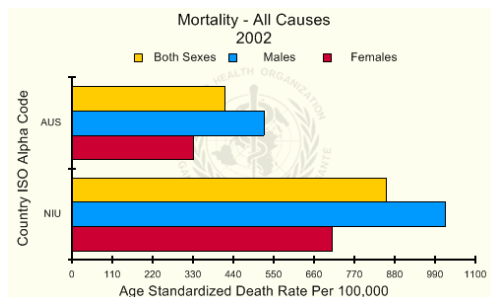
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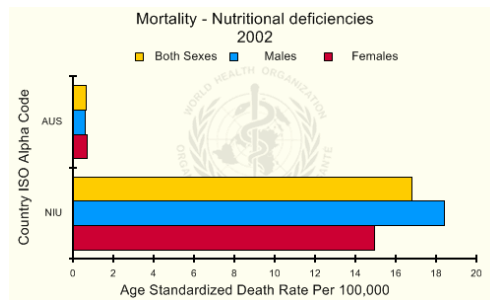
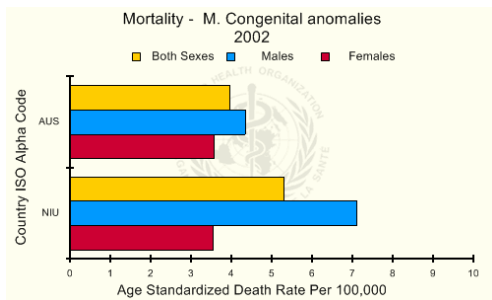
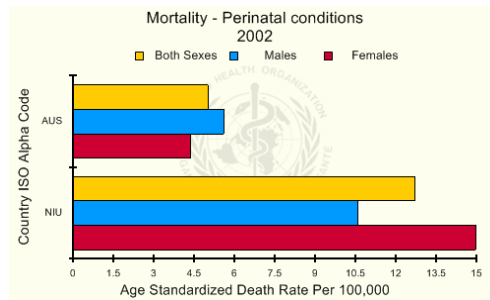
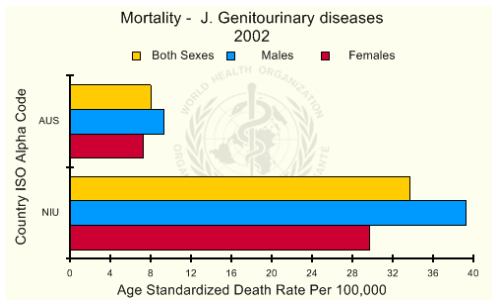
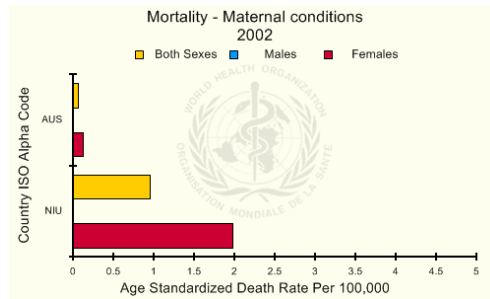
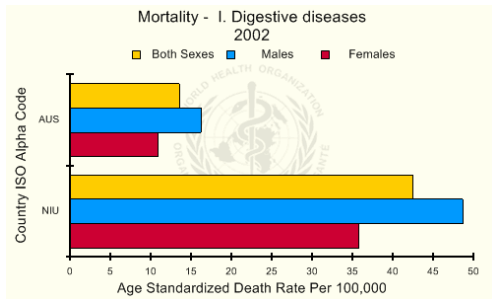
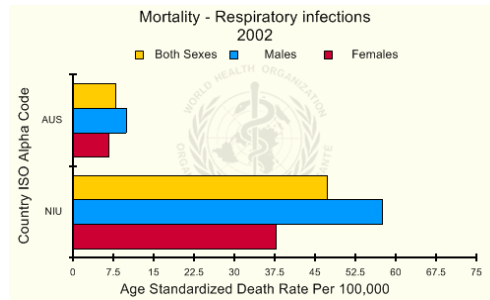
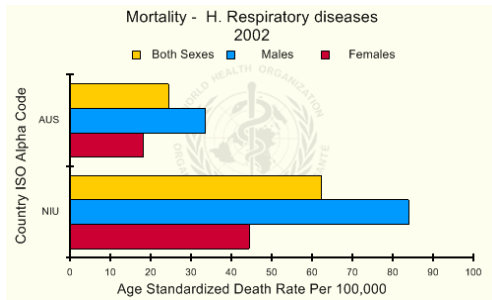
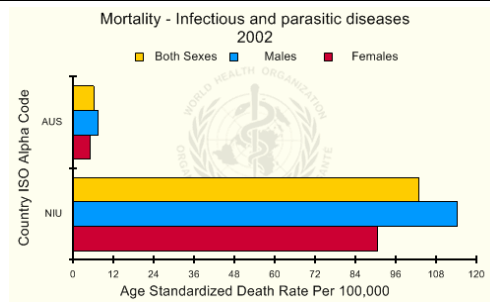
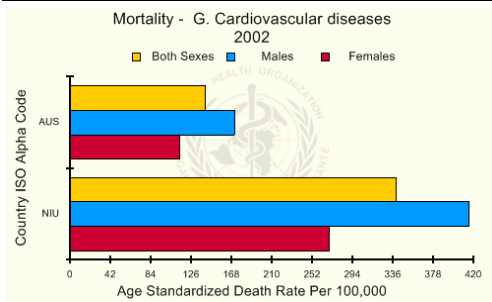
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**Urban/Rural:**both urban and rural populations

### Notes:





## Kiribati of Australia

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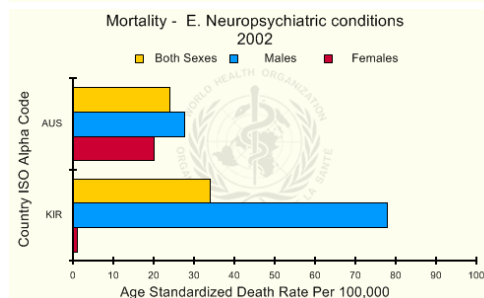
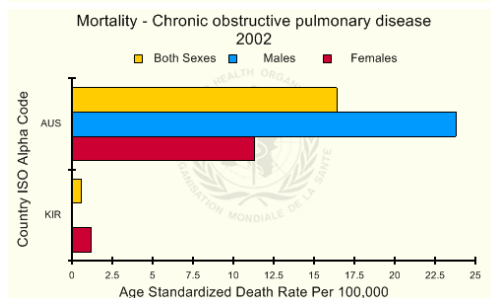
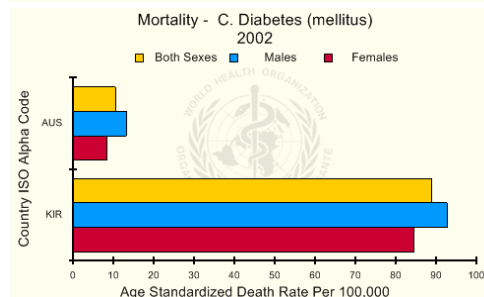
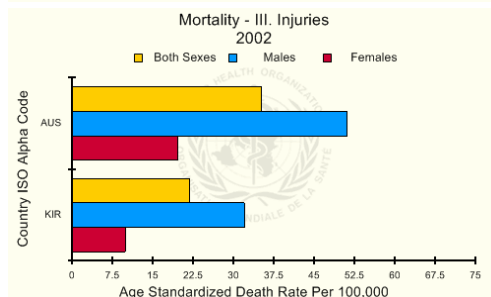
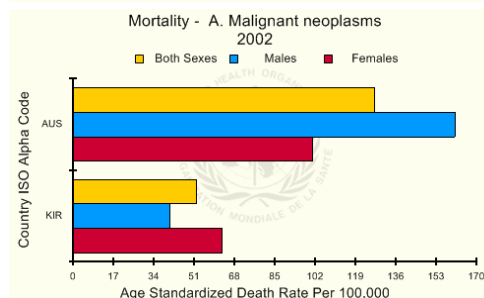
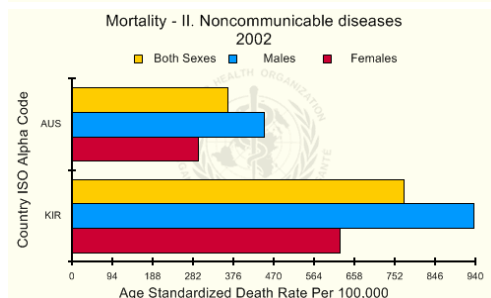
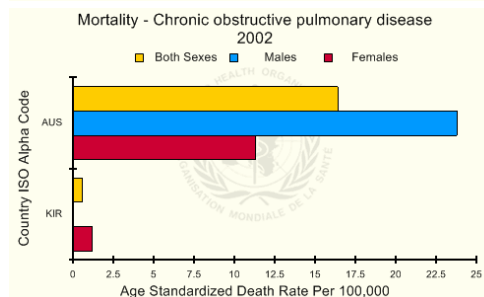
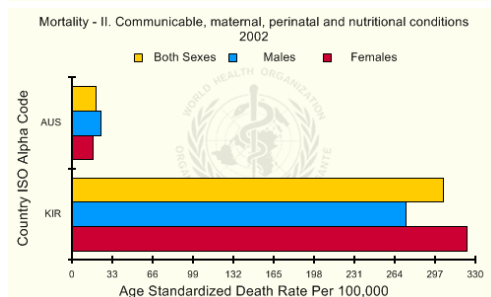
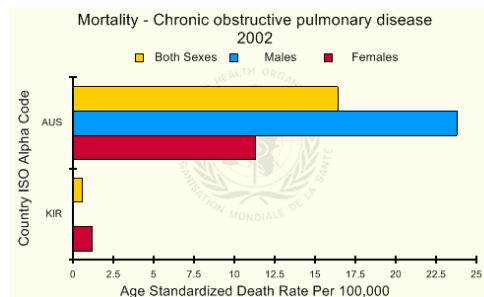
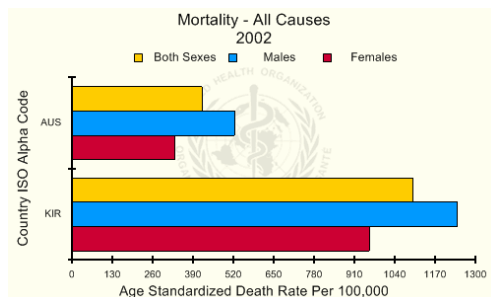
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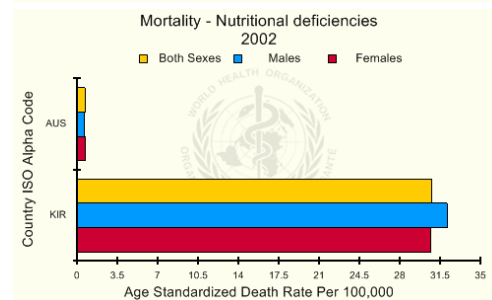
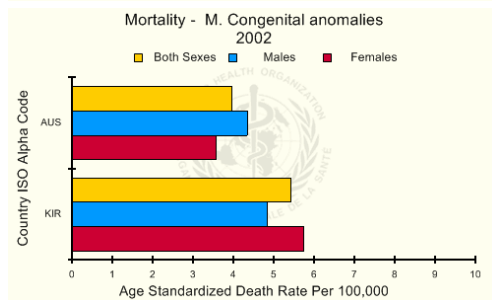
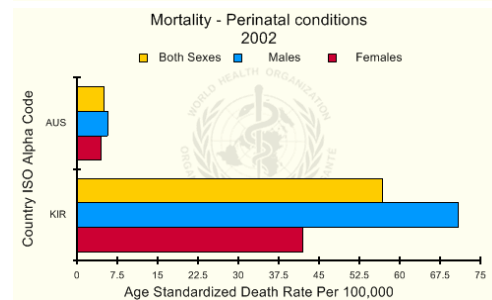
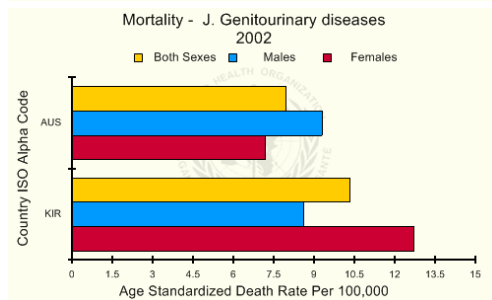
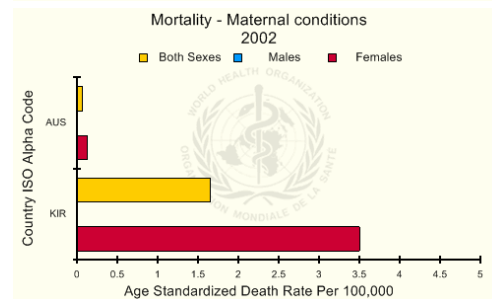
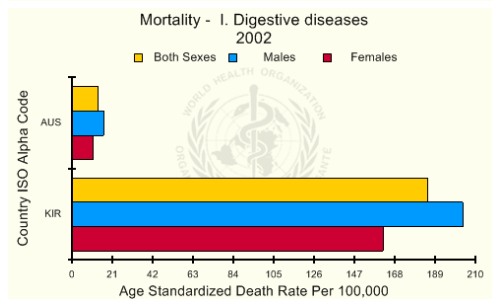
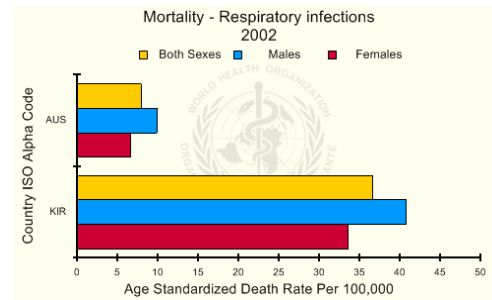
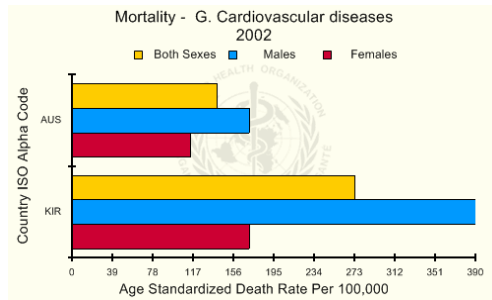
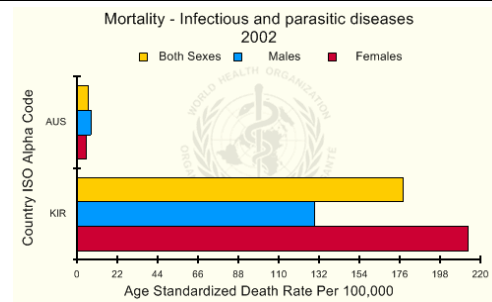
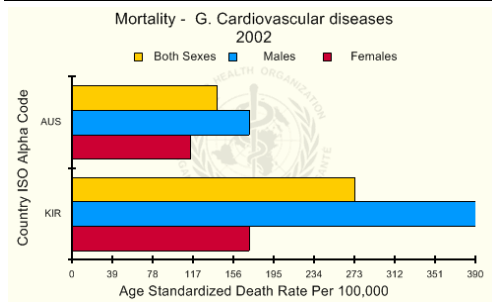
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**InfoBase Ref. #:**199998a1

**Urban/Rural:**both urban and rural populations

### Notes:





## Myanmar cf Australia

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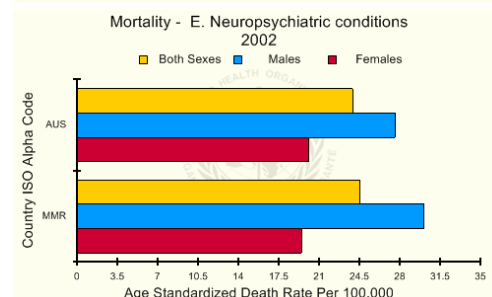
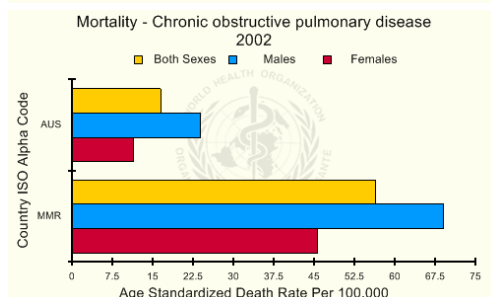
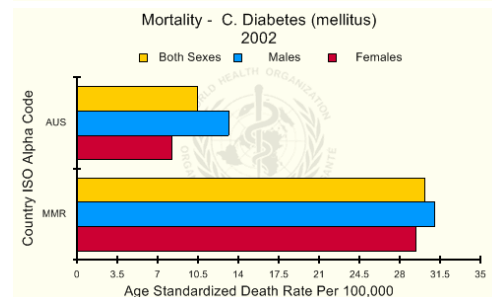
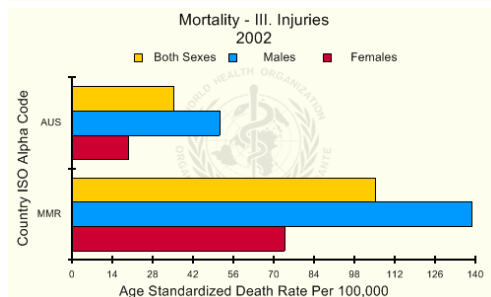
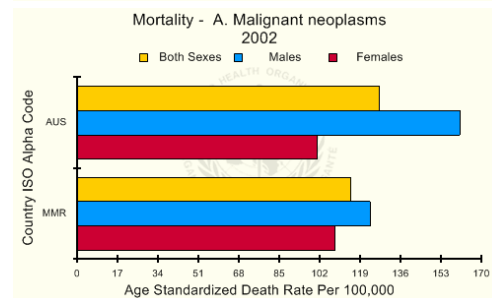
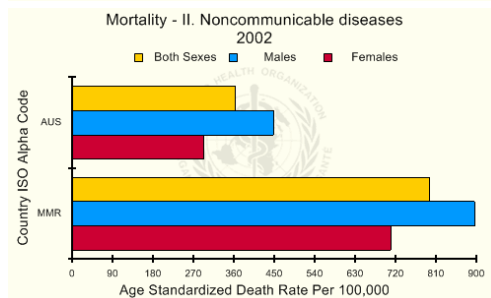
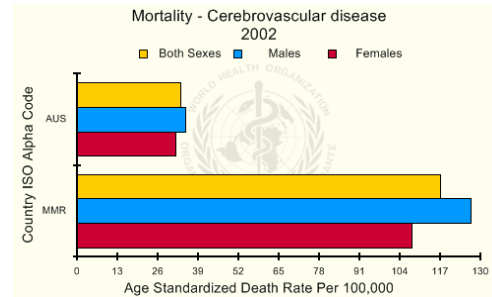
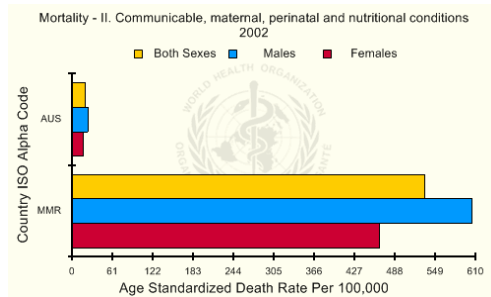
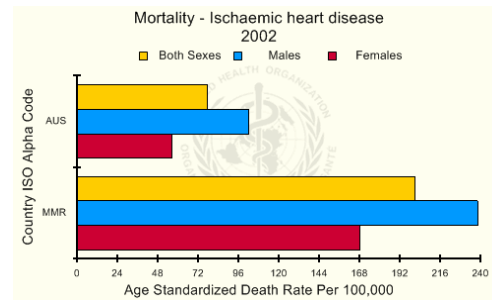
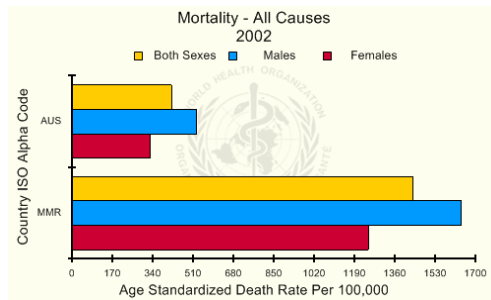
**Title:**Global Burden of Disease in 2002: data sources, methods and results.

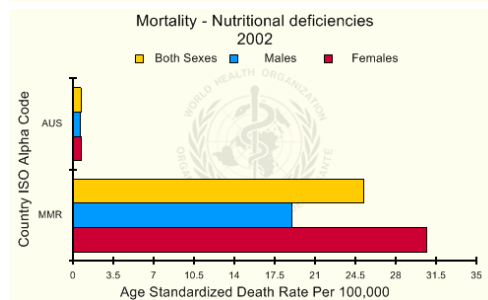
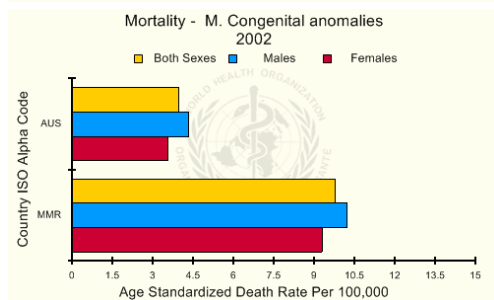
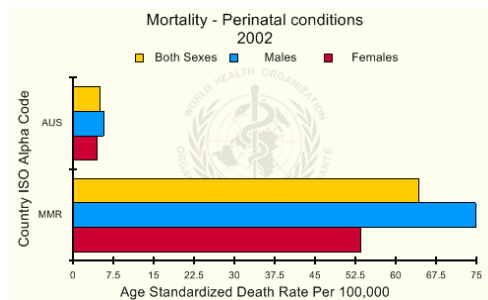
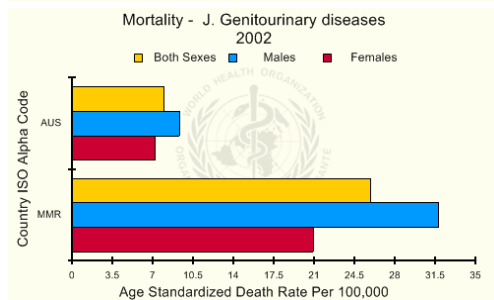
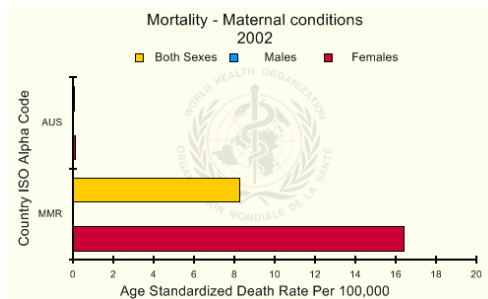
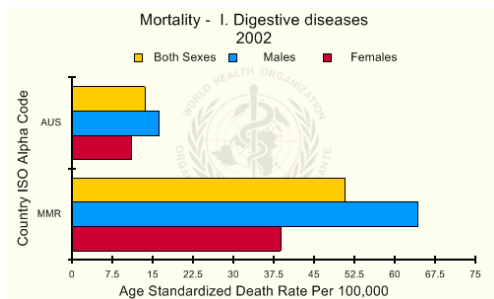
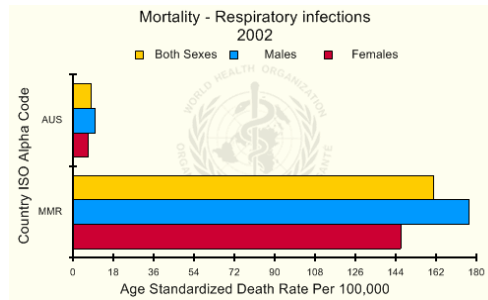
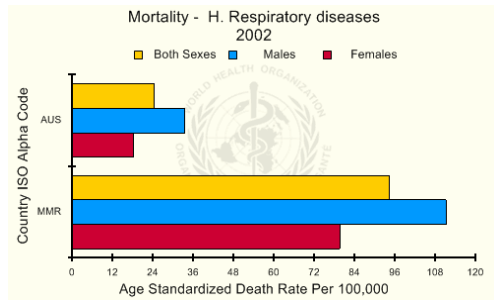
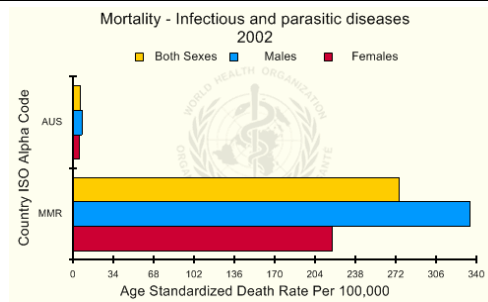
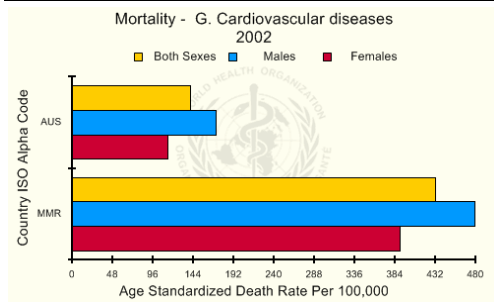
**Year:**2002

**Coverage:**national

**InfoBase Ref. #:**199998a1

**Urban/Rural:**both urban and rural populations





## Micronesia (FSM) cf Australia

The information below was collected by the following survey:

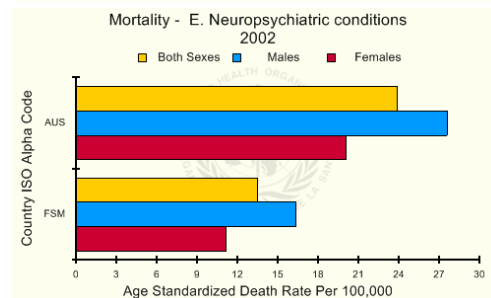
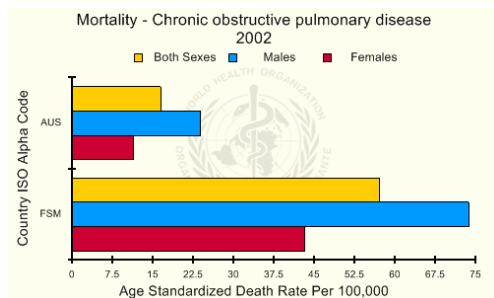
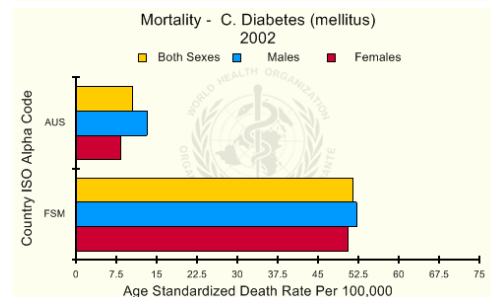
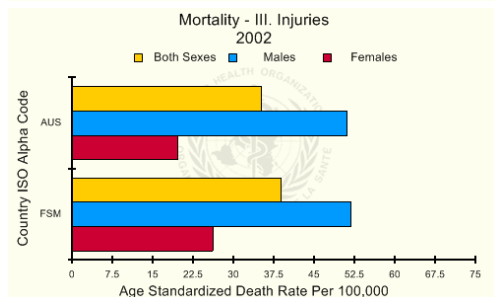
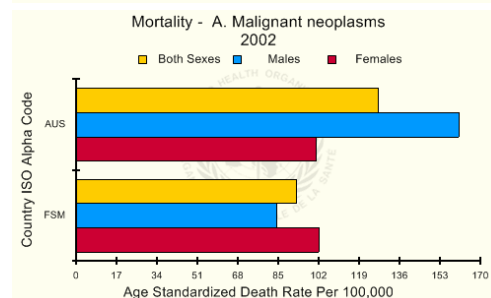
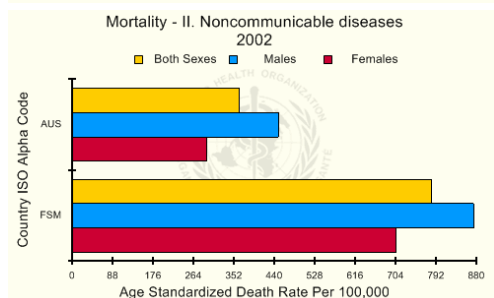
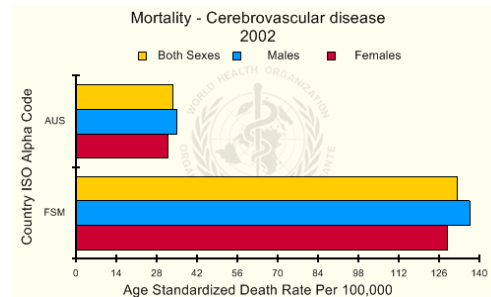
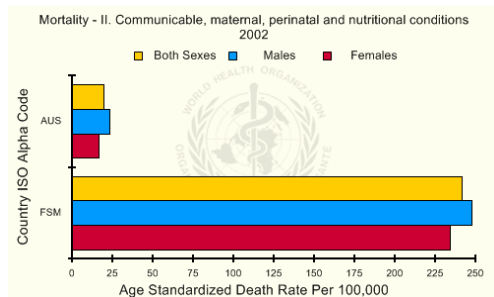
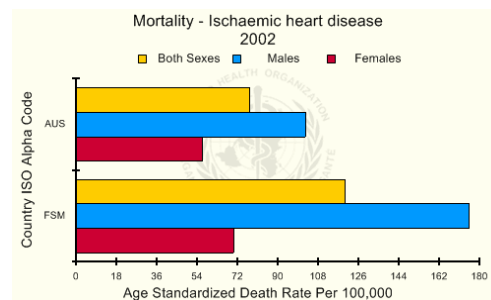
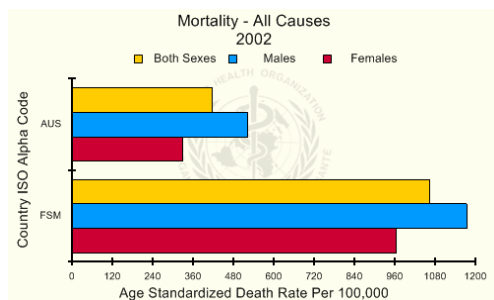
**Title:** Global Burden of Disease in 2002: data sources, methods and results.

**Year:** 2002

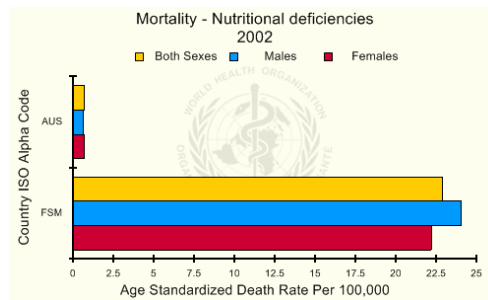
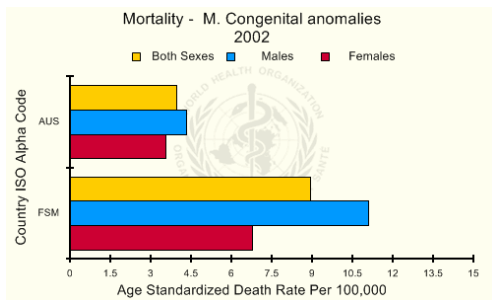
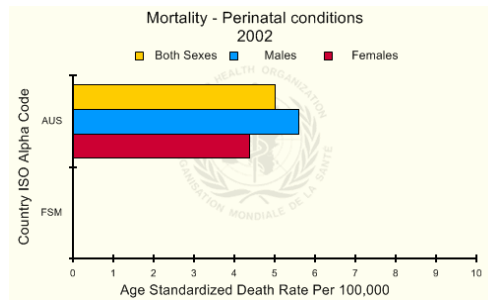
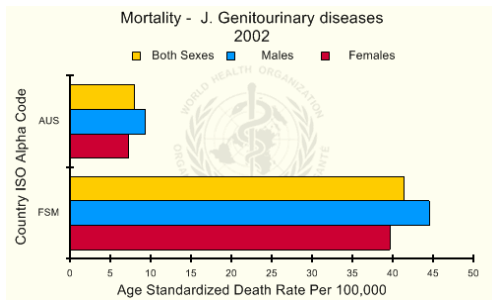
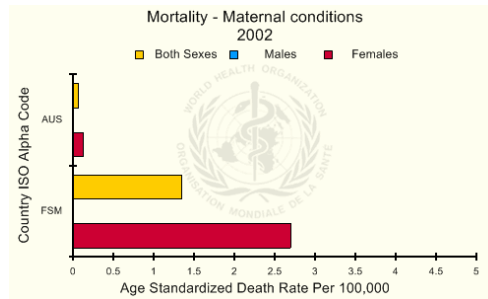
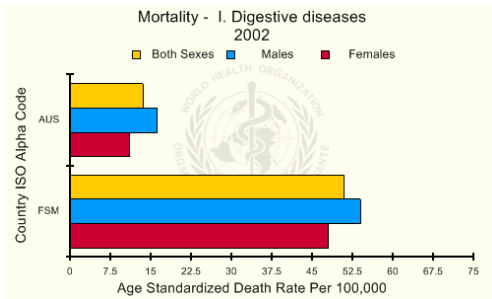
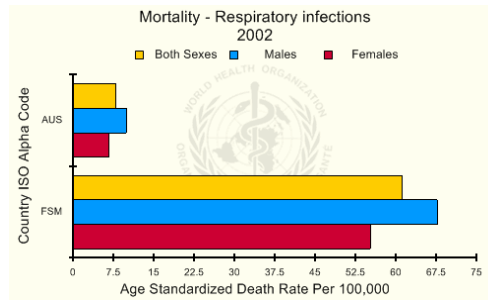
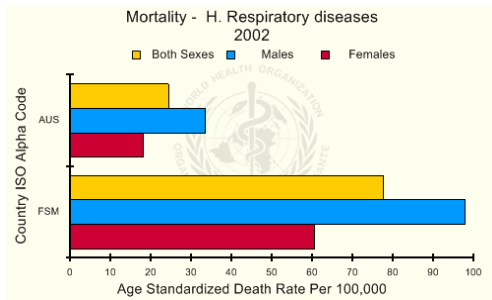
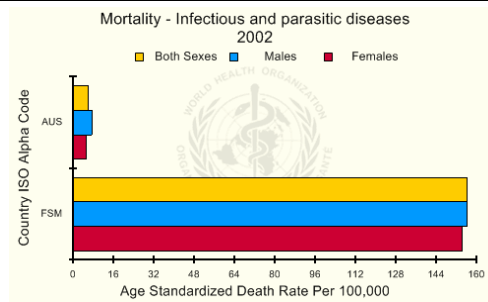
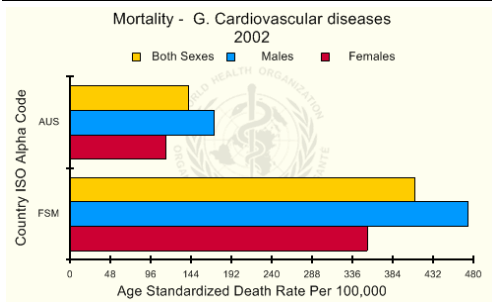
**Coverage:** national

**InfoBase Ref. #:** 199998a1

**Urban/Rural:** both urban and rural populations







## Lao, Democratic Republic of *cf* Australia

The information below was collected by the following survey:

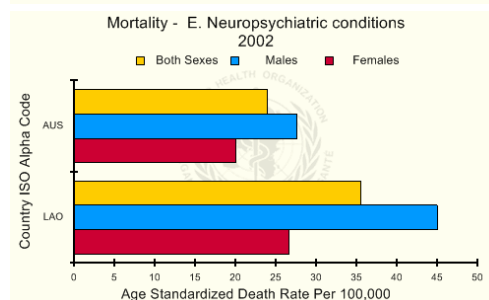
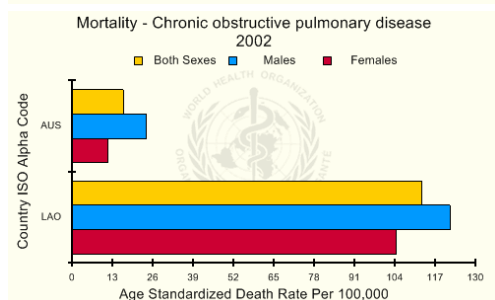
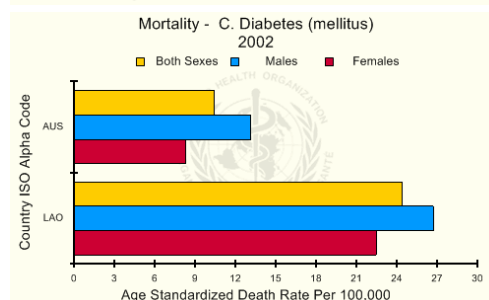
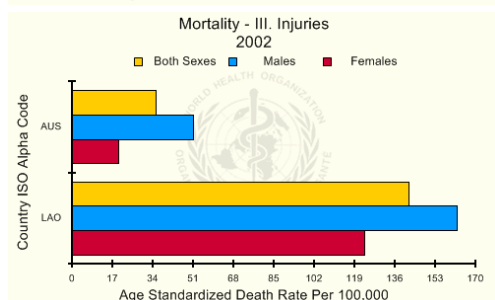
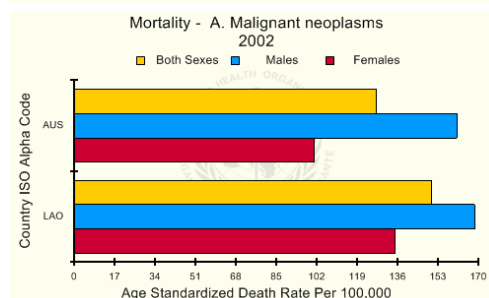
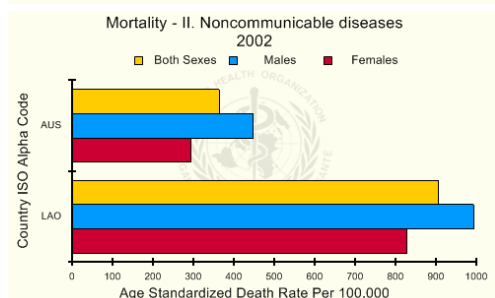
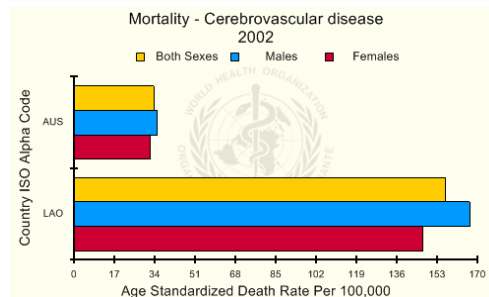
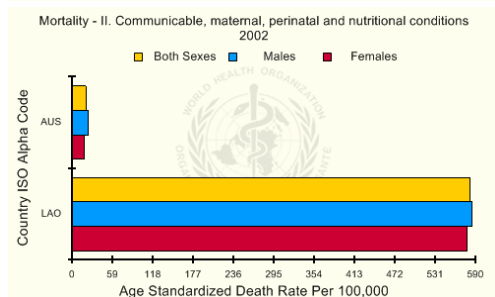
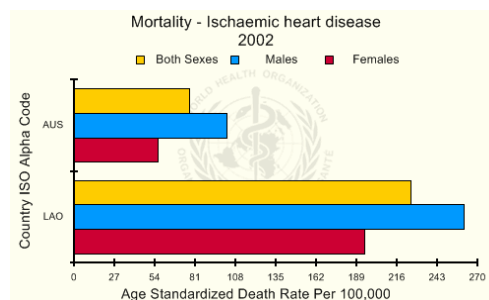
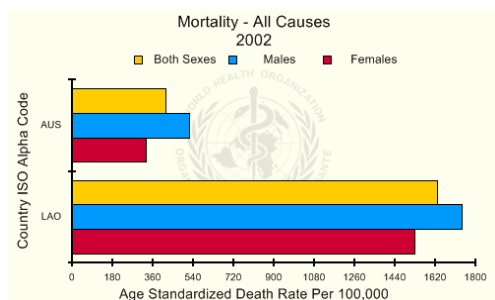
**Title:**Global Burden of Disease in 2002: data sources, methods and results.

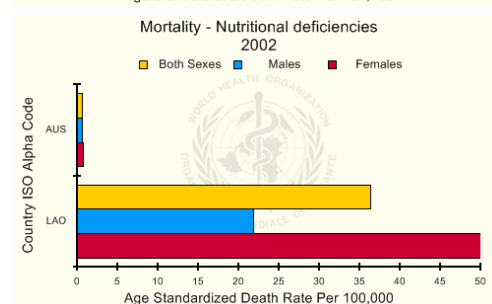
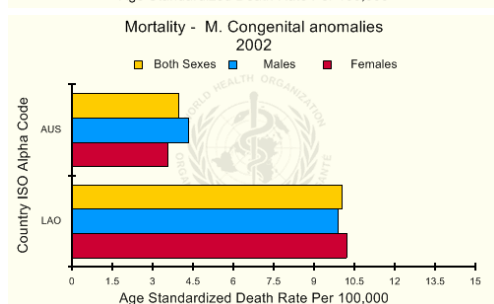
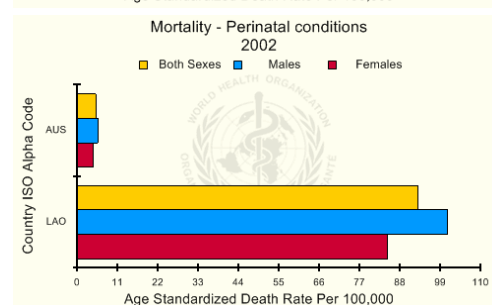
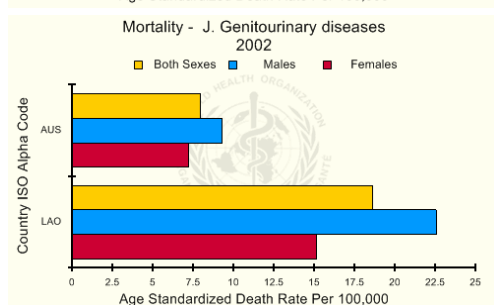
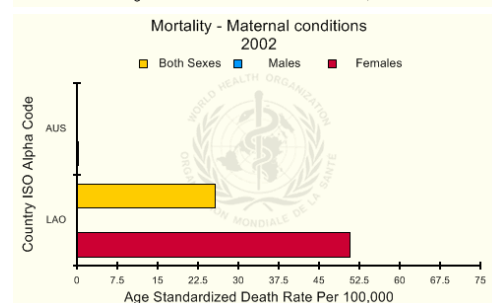
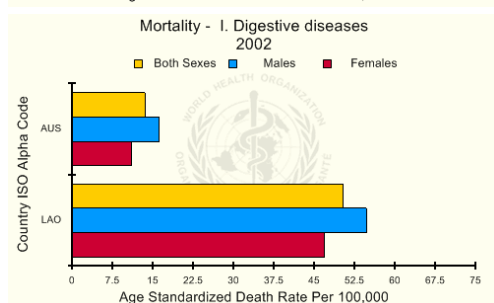
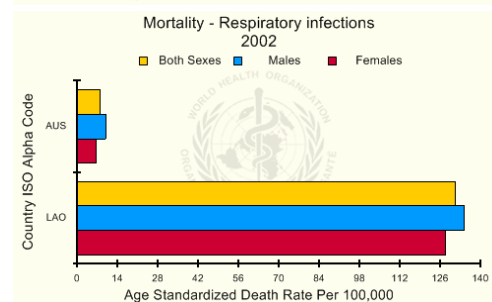
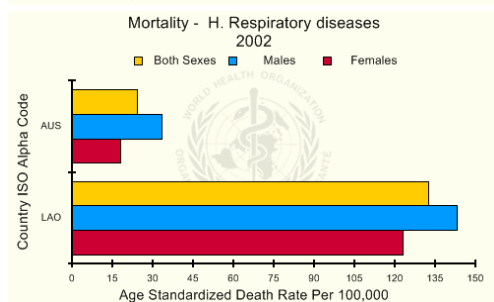
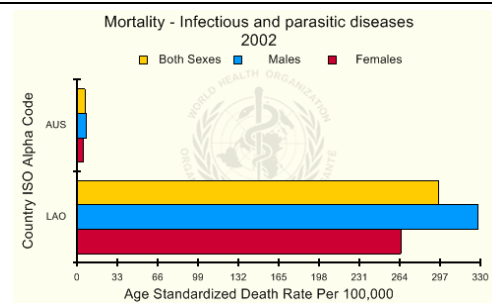
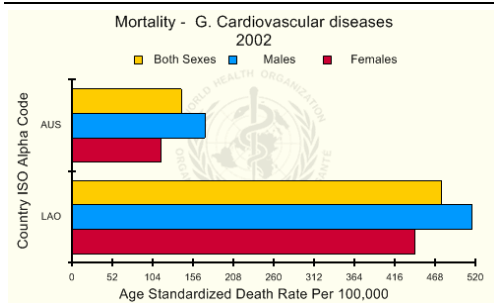
**Year:**2002

**Coverage:**national

**InfoBase Ref. #:**199998a1

**Urban/Rural:**both urban and rural populations





## China *cf* Australia

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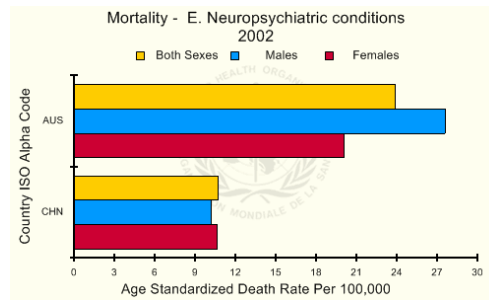
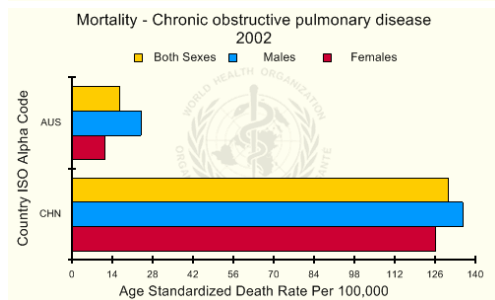
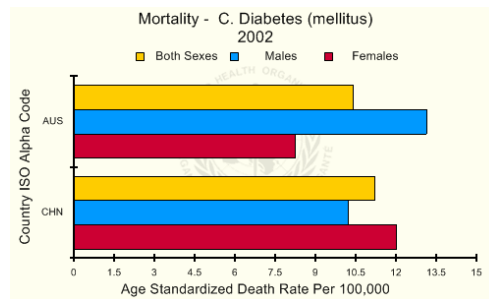
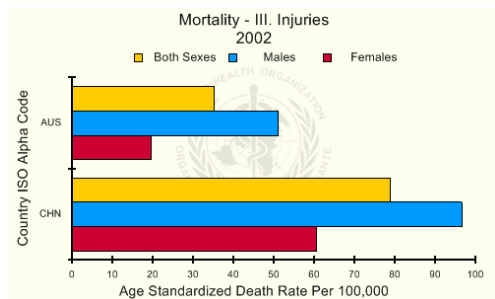
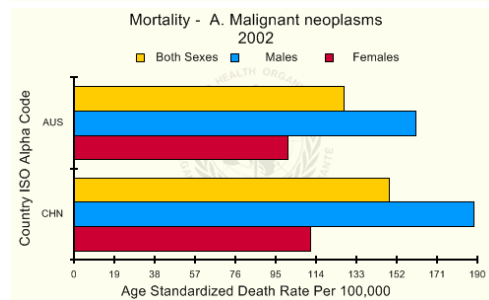
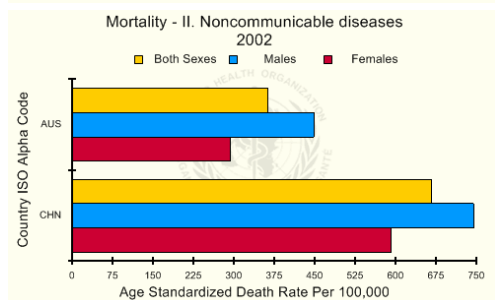
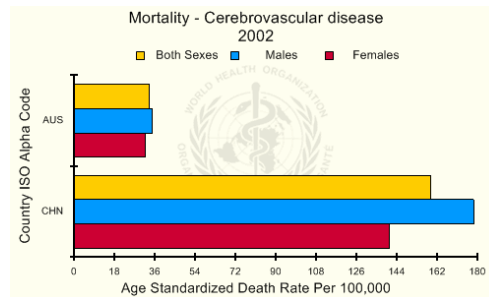
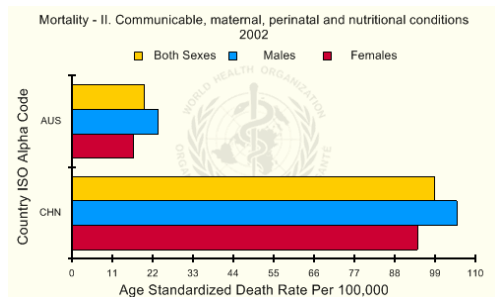
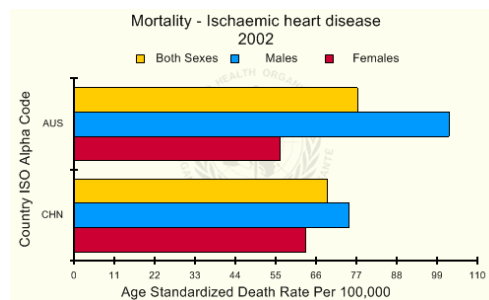
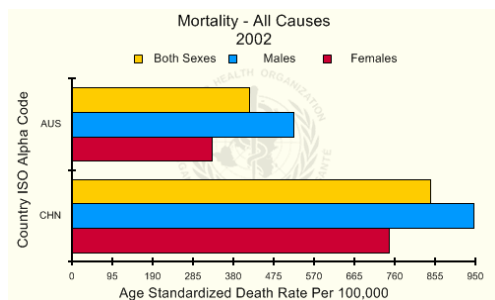
**Title:** Global Burden of Disease in 2002: data sources, methods and results.

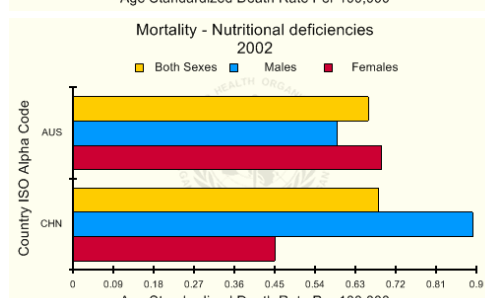
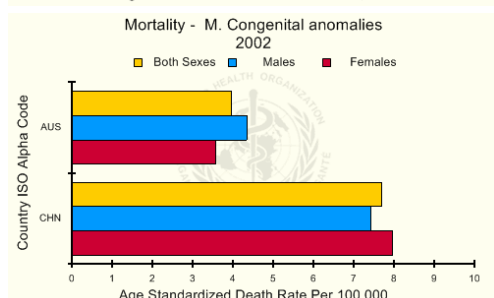
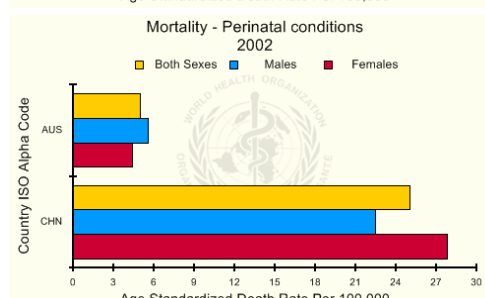
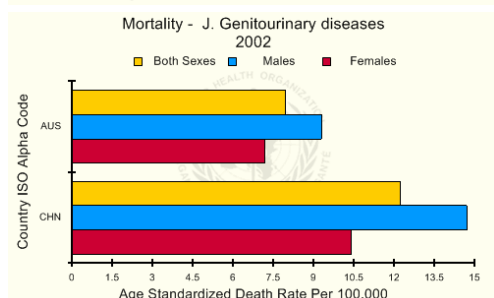
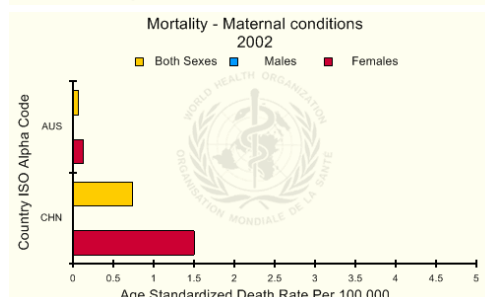
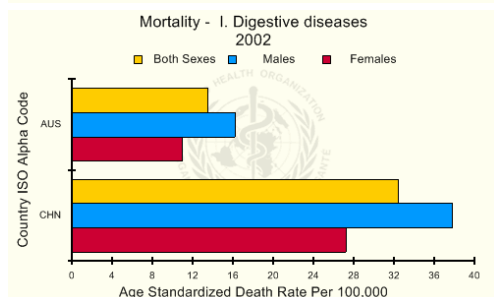
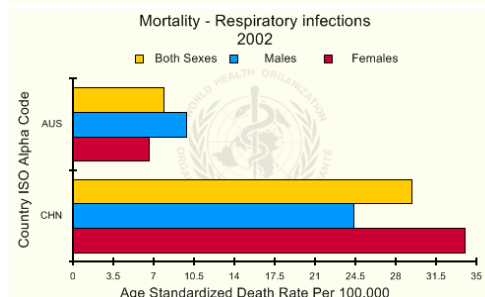
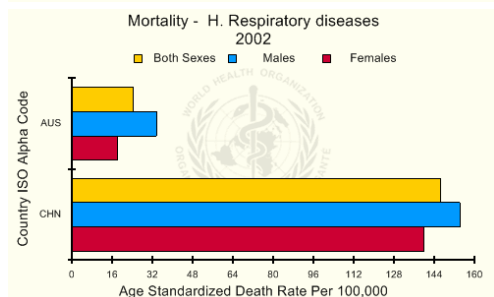
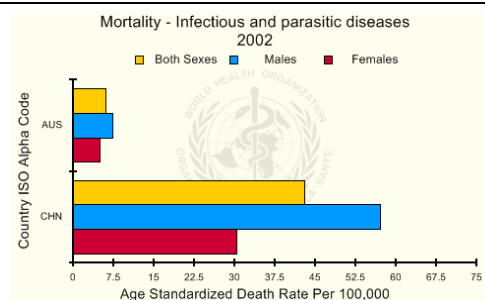
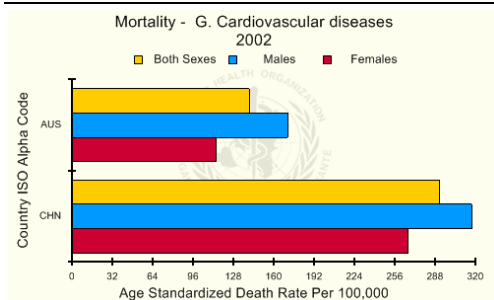
**Year:** 2002

**Coverage:** national

**InfoBase Ref. #:** 199998a1

**Urban/Rural:** both urban and rural populations





## Fiji cf Australia

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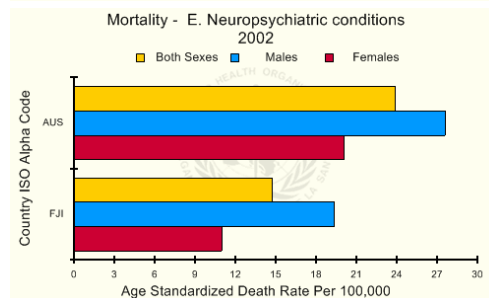
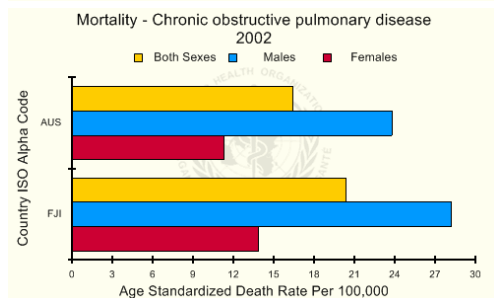
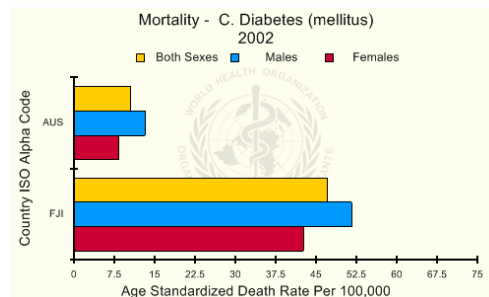
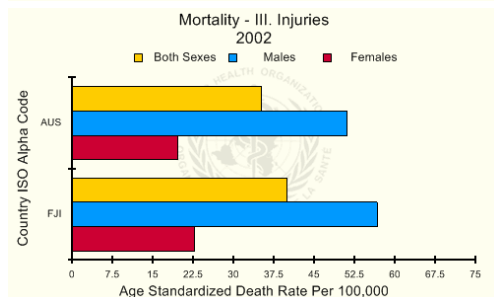
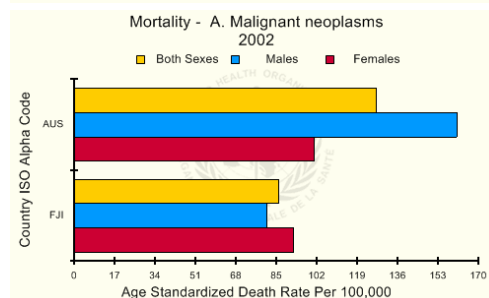
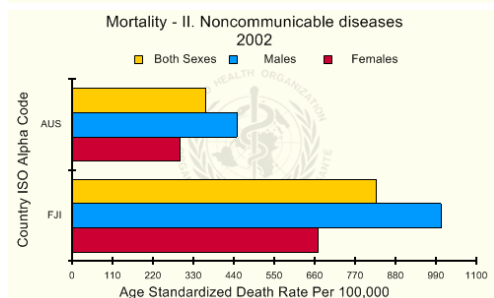
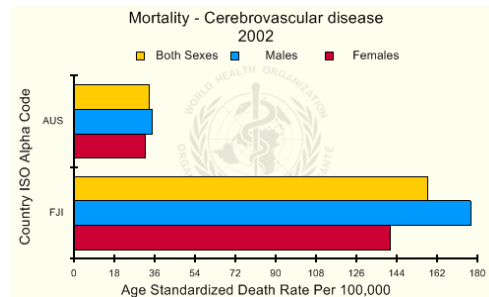
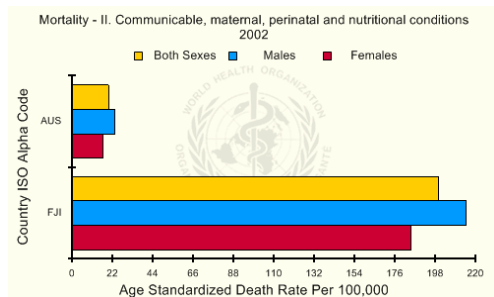
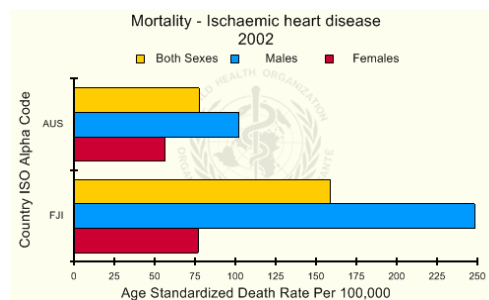
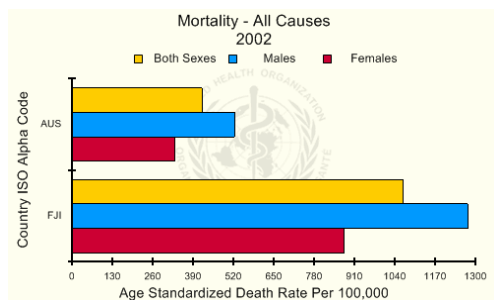
**Title:**Global Burden of Disease in 2002: data sources, methods and results.

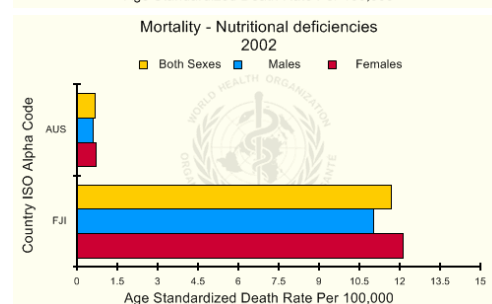
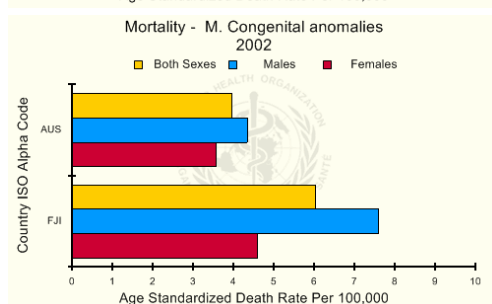
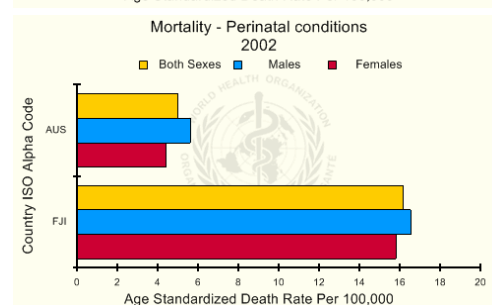
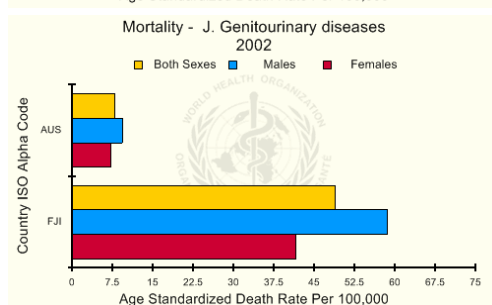
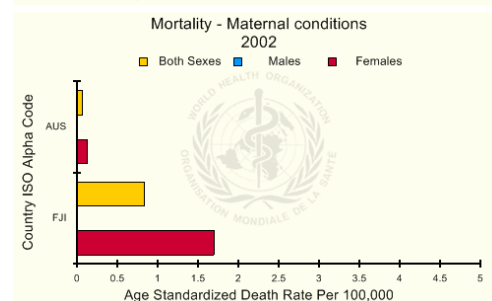
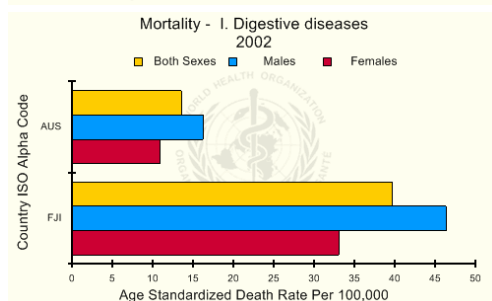
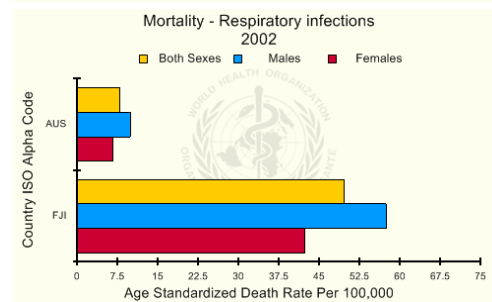
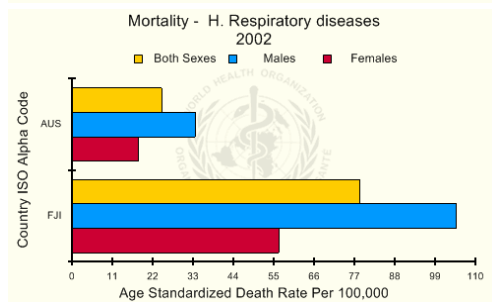
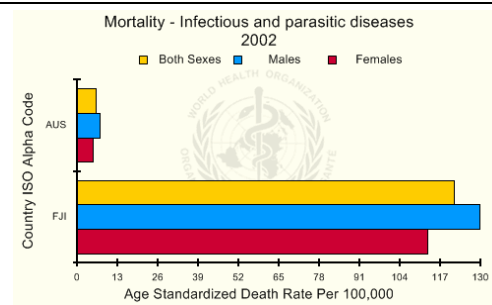
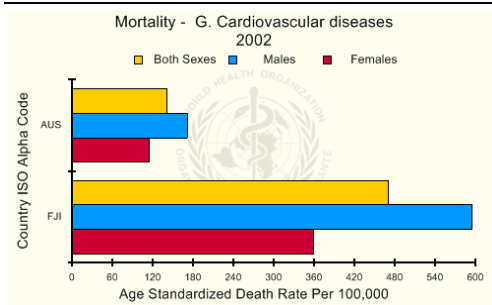
**Year:**2002

**Coverage:**national

**InfoBase Ref. #:**199998a1

**Urban/Rural:**both urban and rural populations





## Palau cf Australia

The information below was collected by the following survey:

**Title:** Global Burden of Disease in 2002: data sources, methods and results.

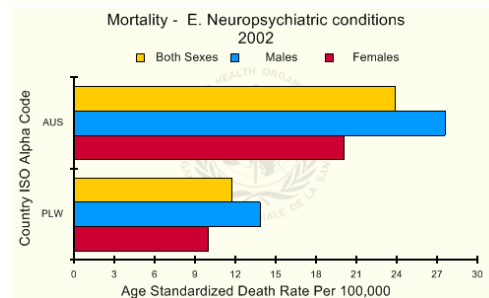
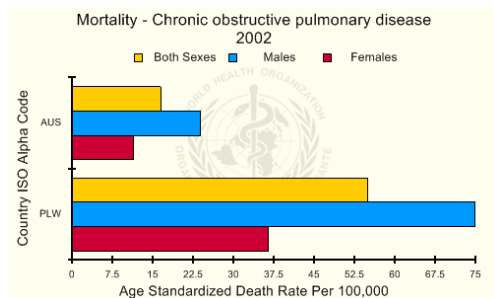
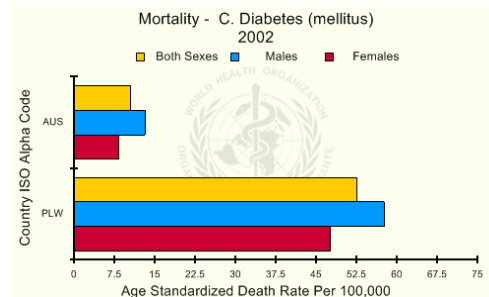
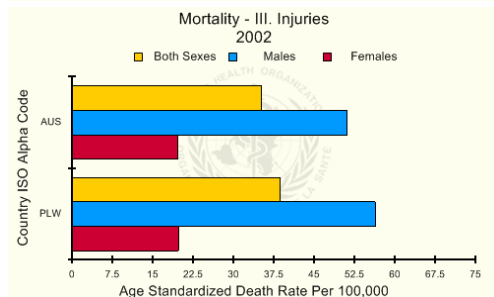
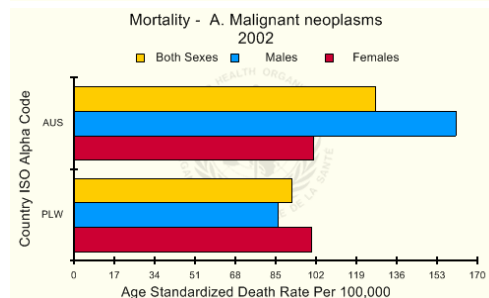
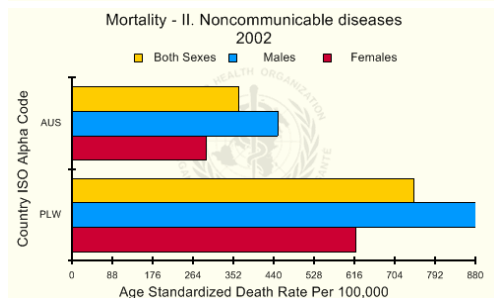
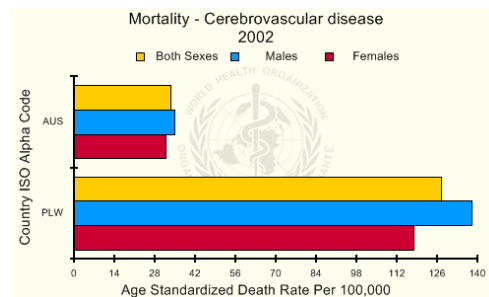
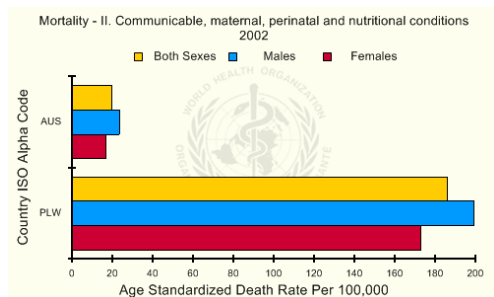
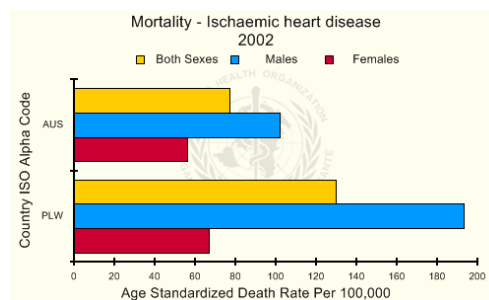
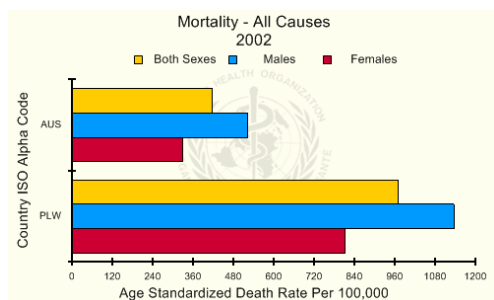
**Year:** 2002

**Coverage:** national

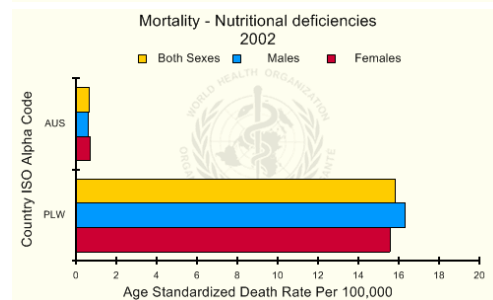
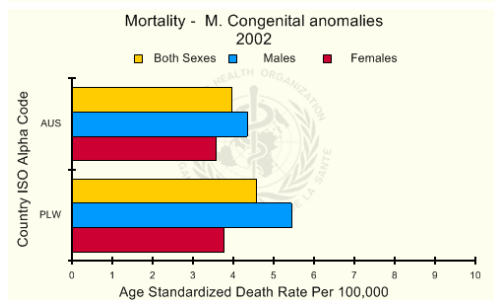
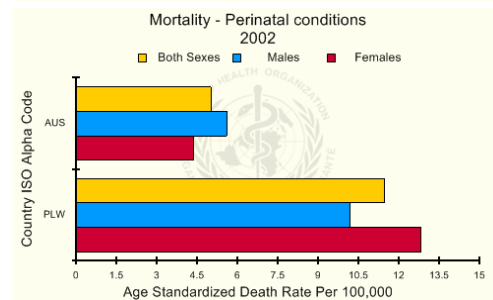
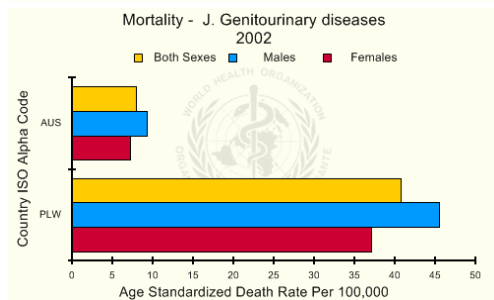
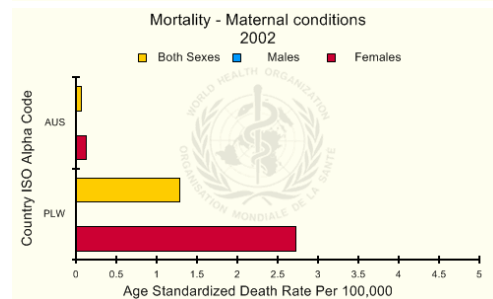
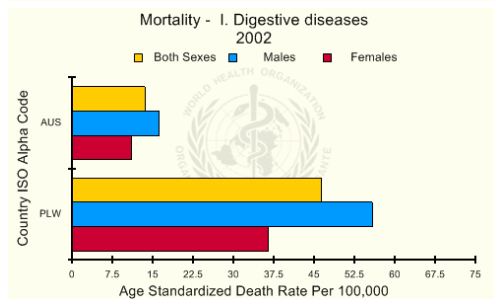
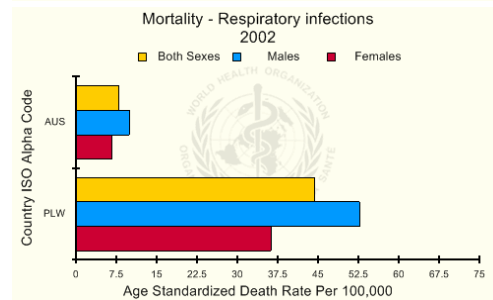
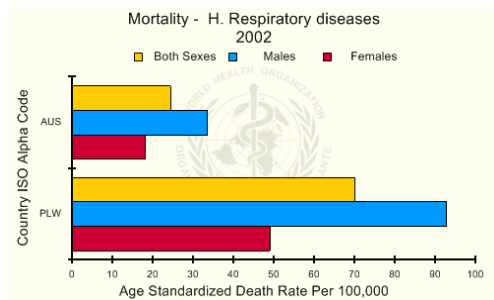
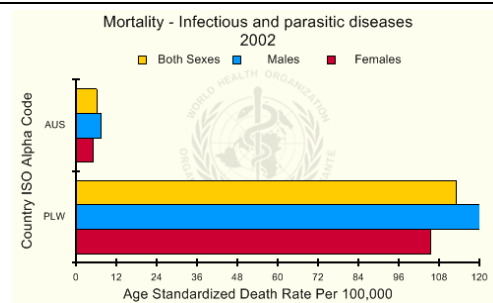
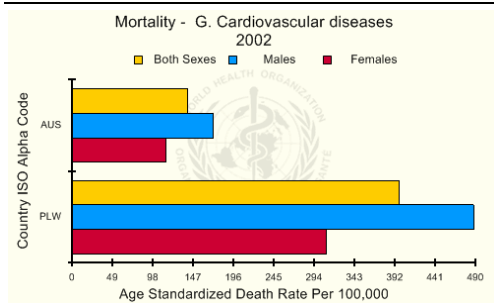
**InfoBase Ref. #:** 199998a1

**Urban/Rural:** both urban and rural populations

### Notes:







## Viet Nam *cf* Australia

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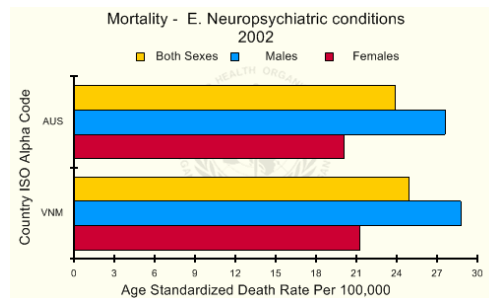
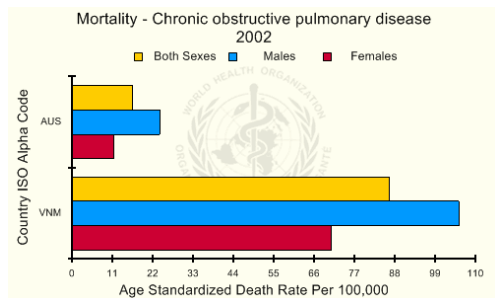
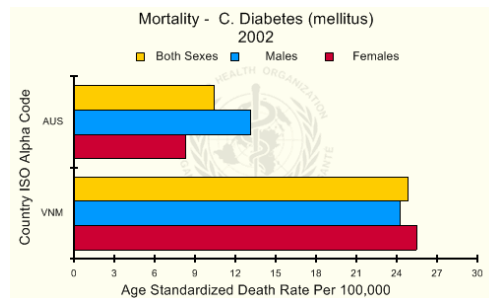
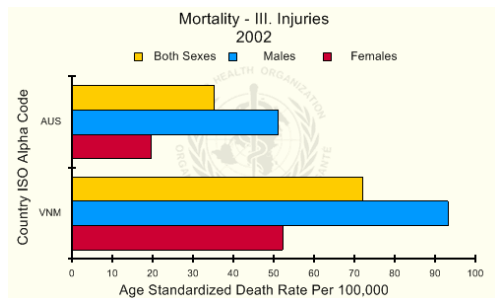
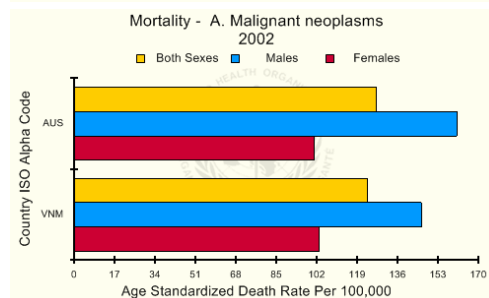
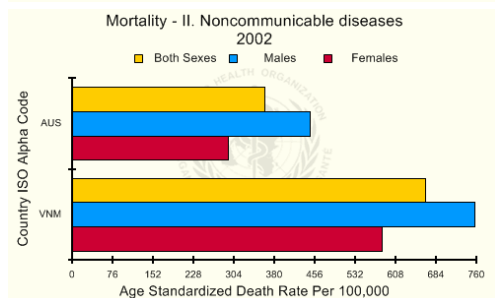
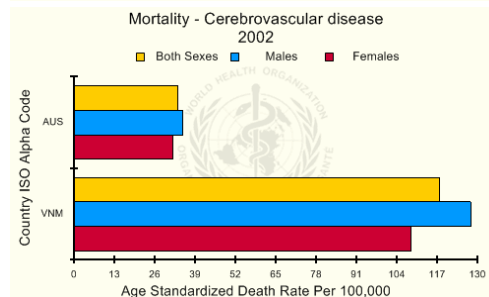
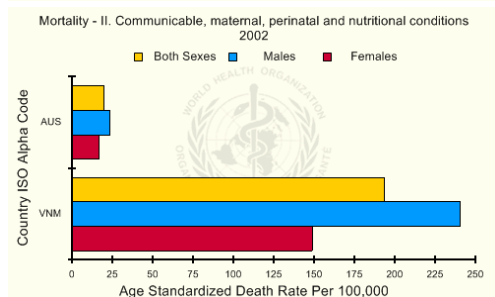
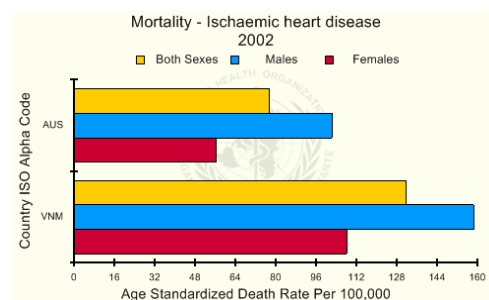
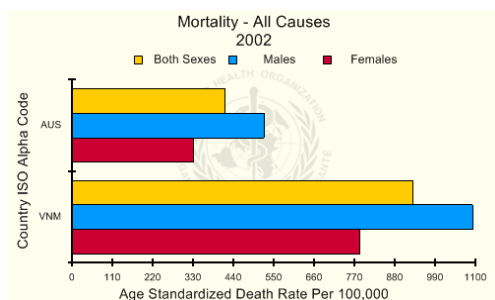
**Title:** Global Burden of Disease in 2002: data sources, methods and results.

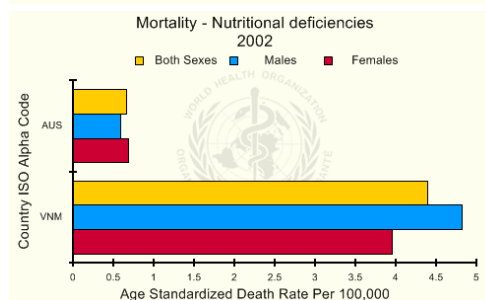
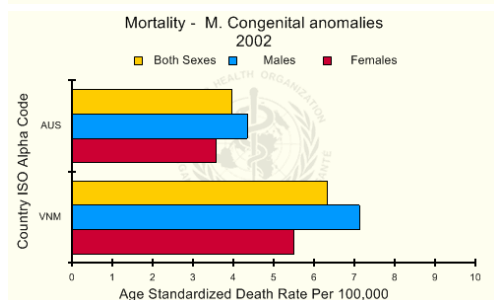
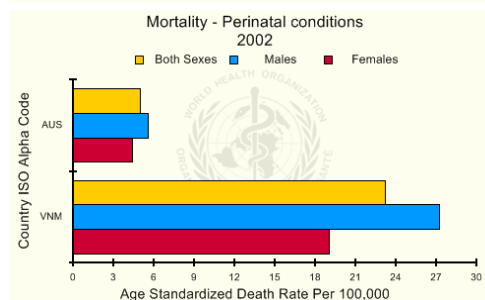
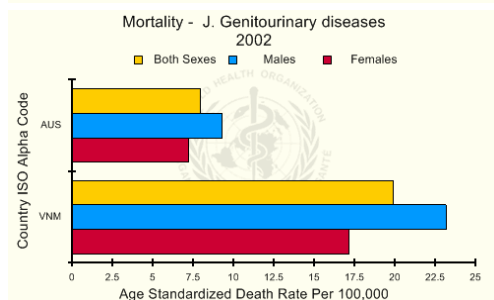
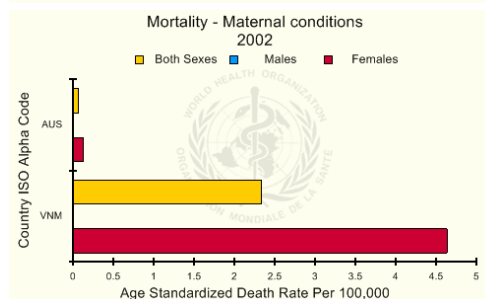
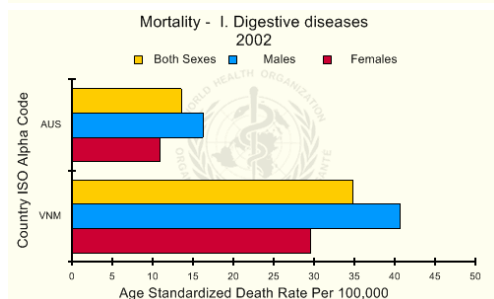
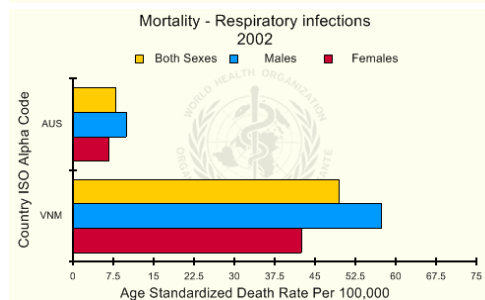
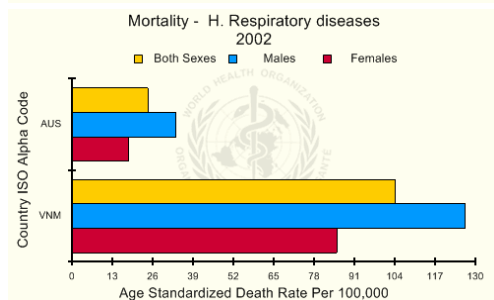
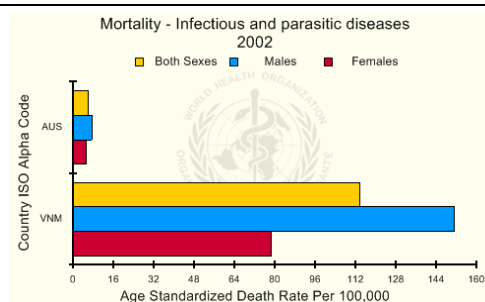
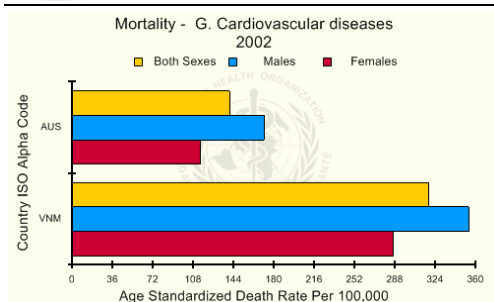
**Year:** 2002

**Coverage:** national

**InfoBase Ref. #:** 199998a1

**Urban/Rural:** both urban and rural populations





## Cook Islands *cf* Australia

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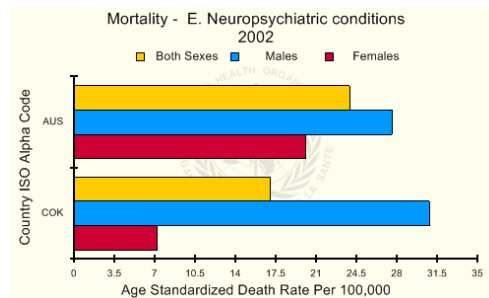
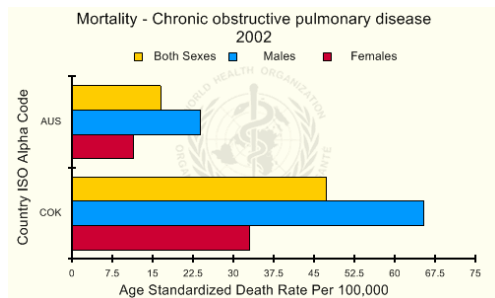
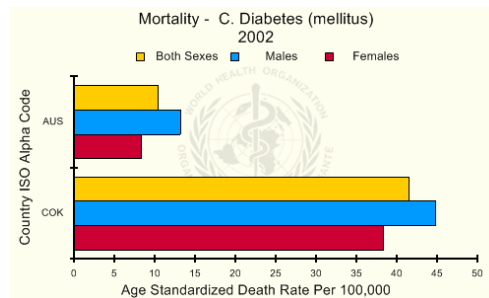
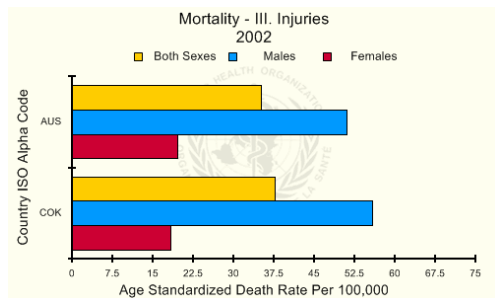
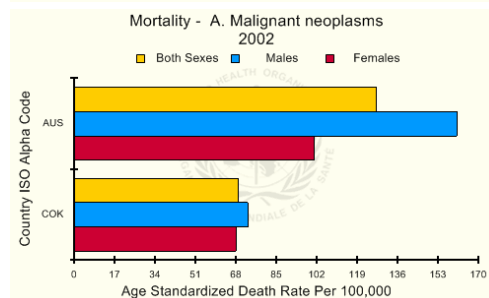
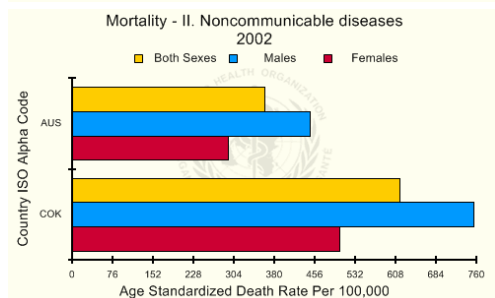
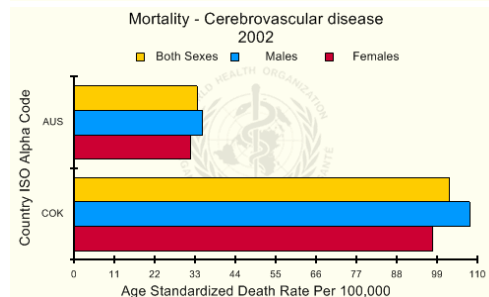
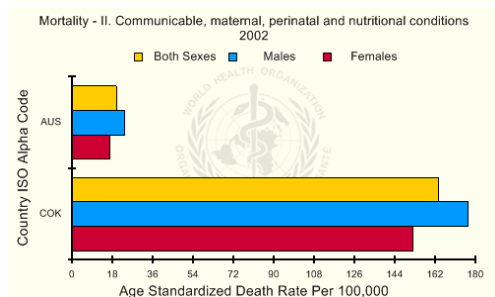
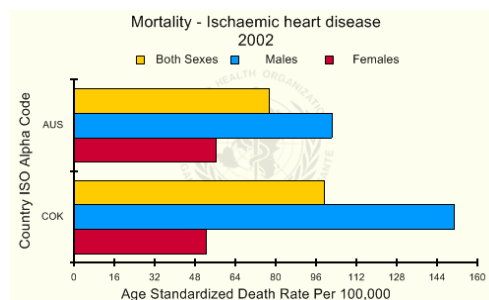
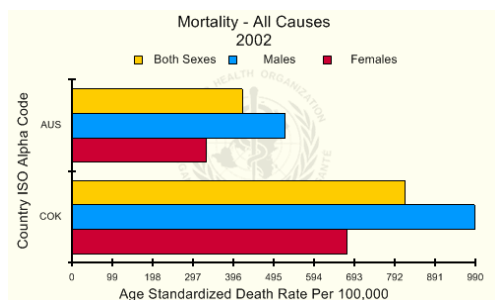
**Title:**Global Burden of Disease in 2002: data sources, methods and results.

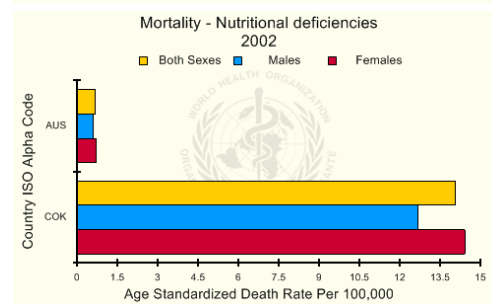
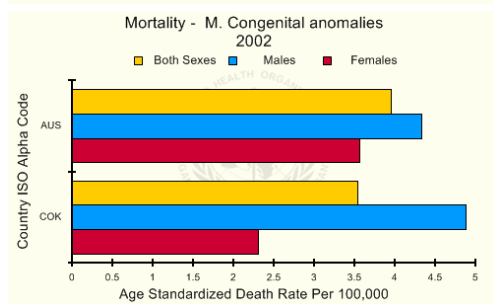
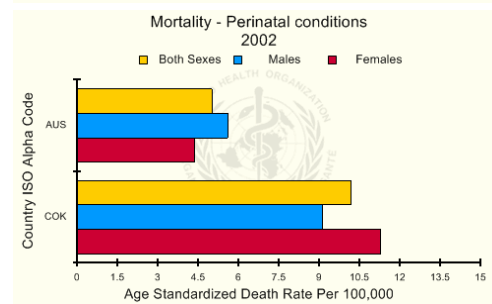
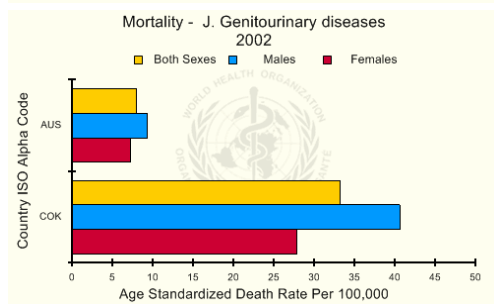
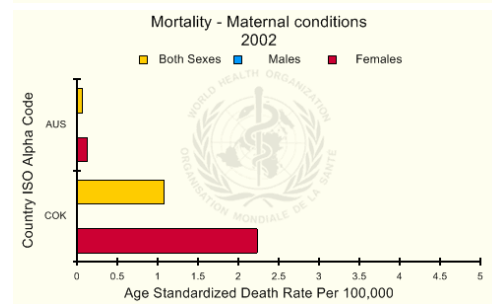
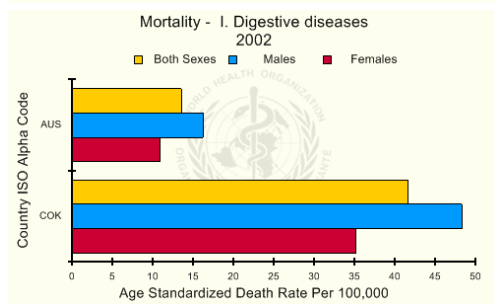
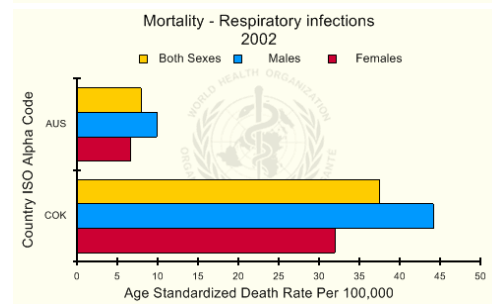
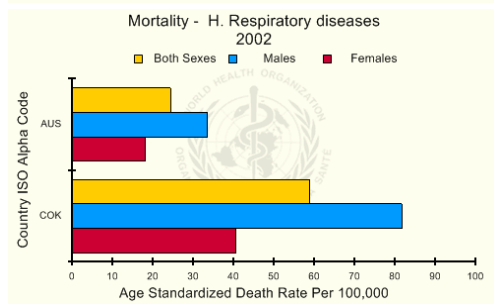
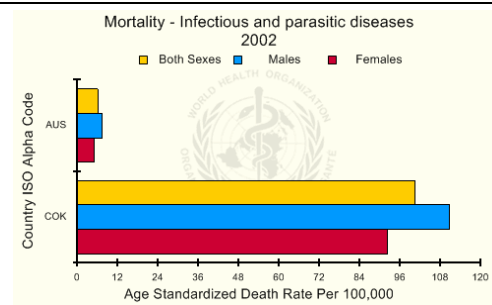
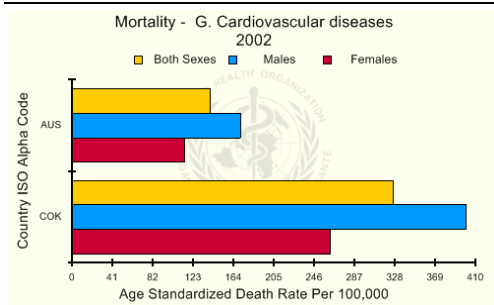
**Year:**2002

**Coverage:**national

**InfoBase Ref. #:**199998a1

**Urban/Rural:**both urban and rural populations





## Philippines *cf* Australia

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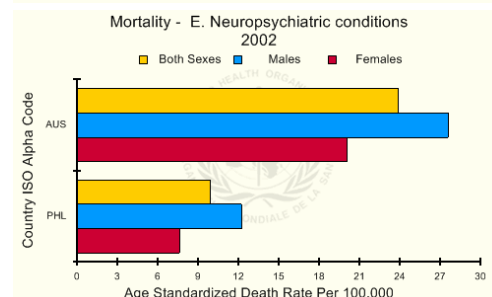
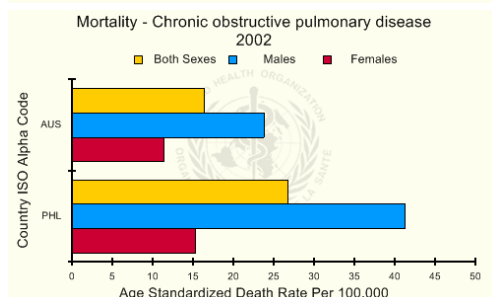
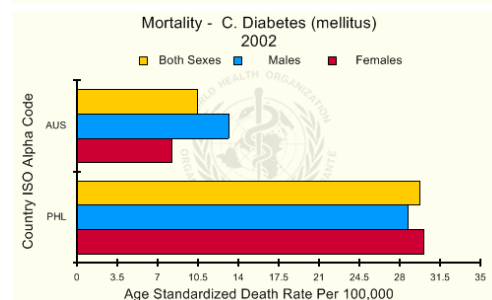
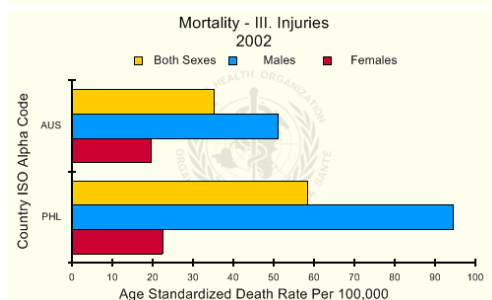
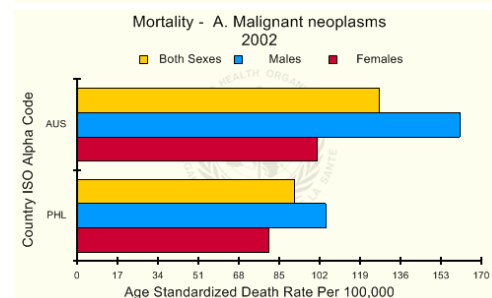
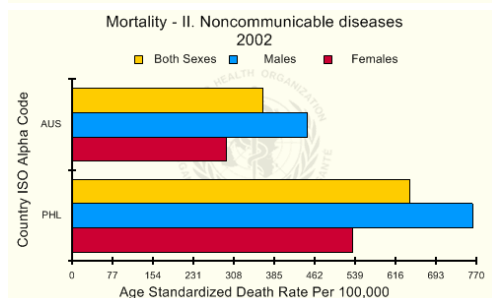
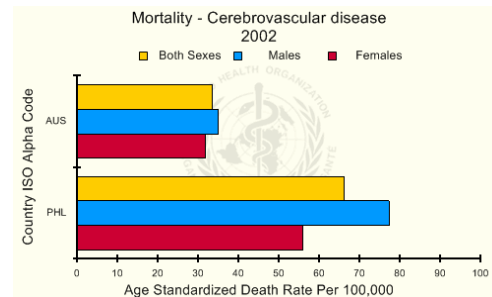
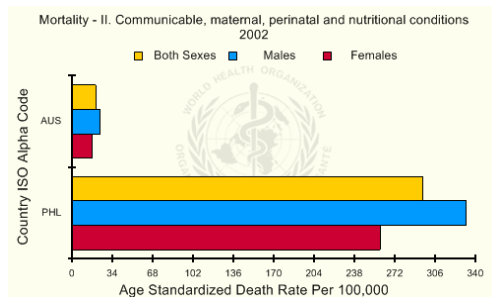
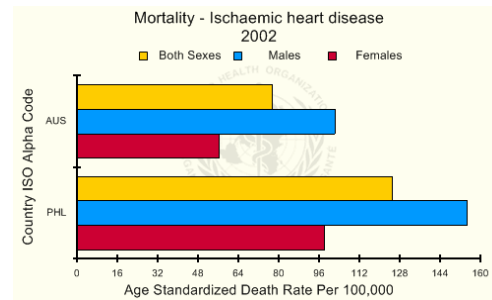
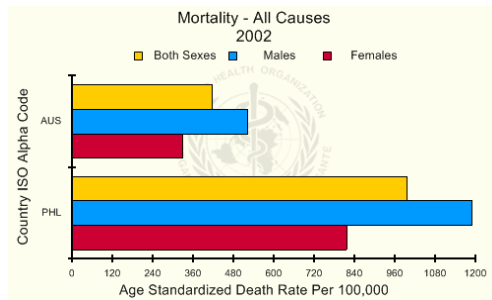
**Title:**Global Burden of Disease in 2002: data sources, methods and results.

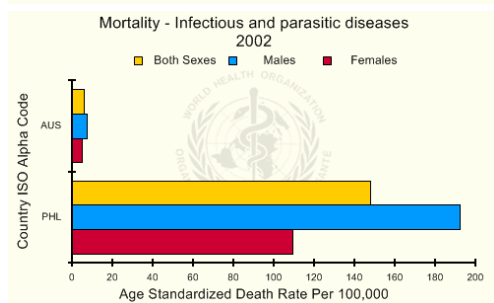
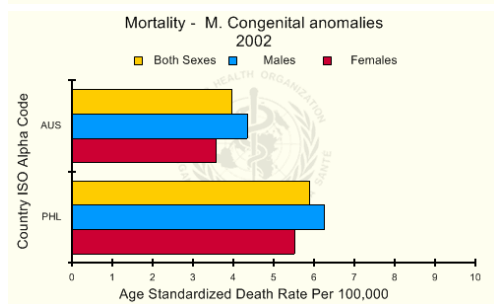
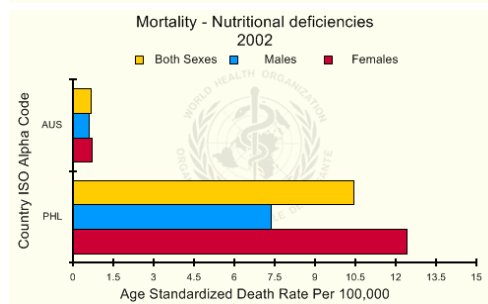
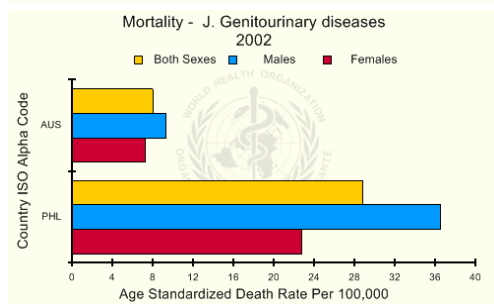
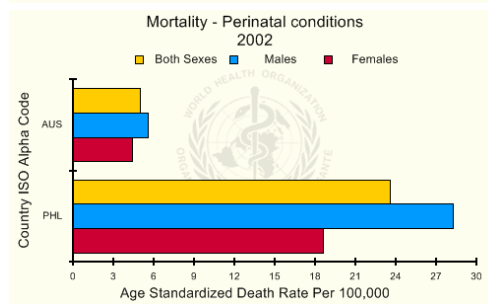
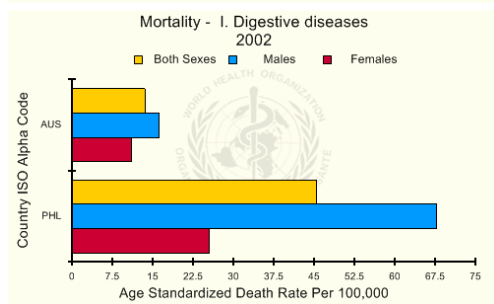
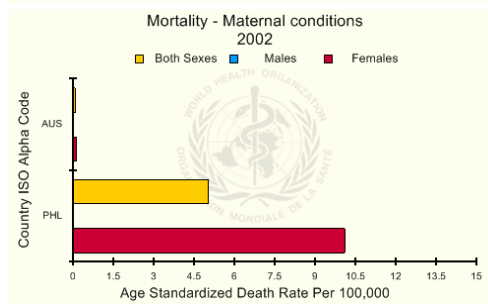
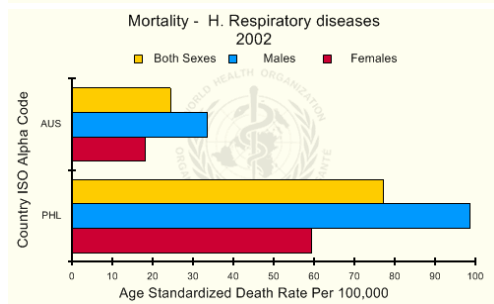
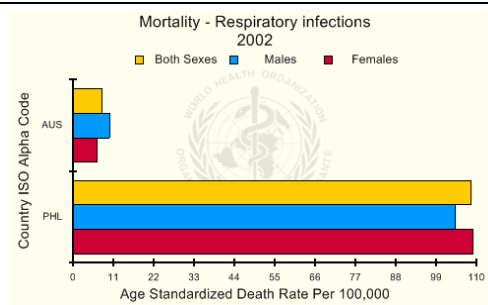
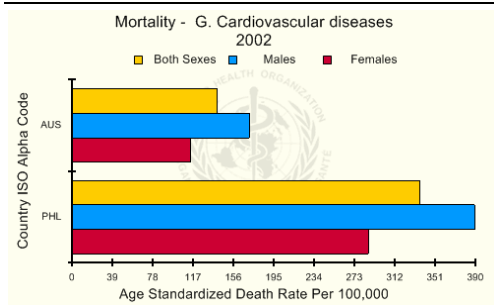
**Year:**2002

**Coverage:**national

**InfoBase Ref. #:**199998a1

**Urban/Rural:**both urban and rural populations





## Cambodia cf Australia

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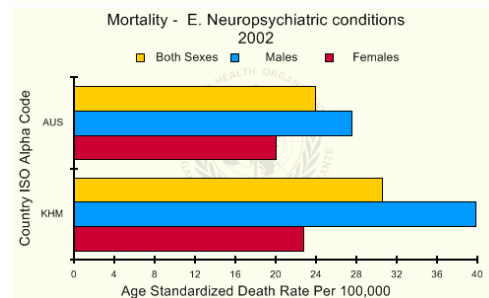
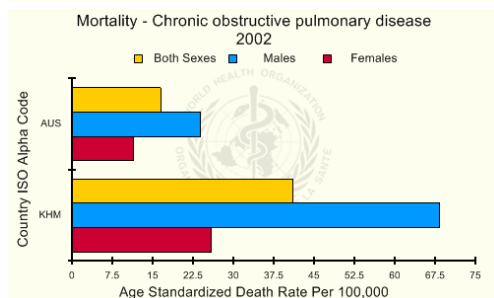
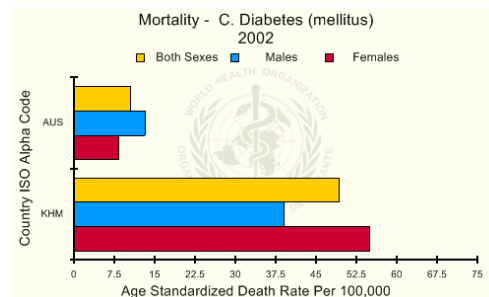
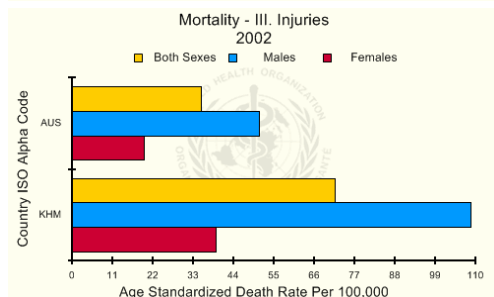
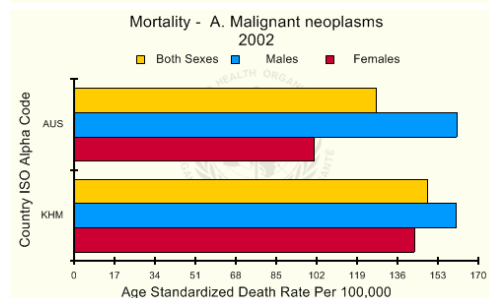
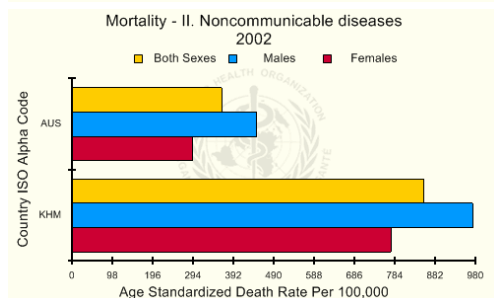
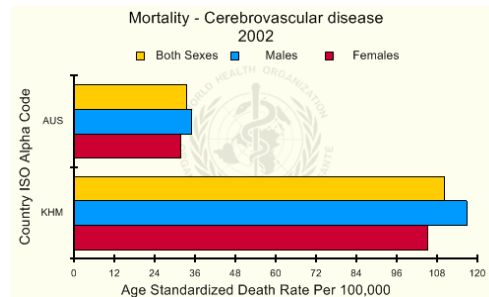
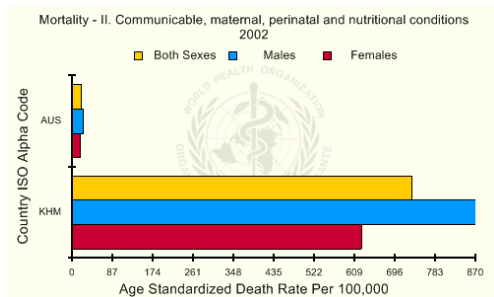
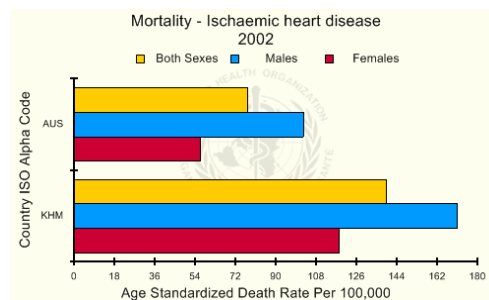
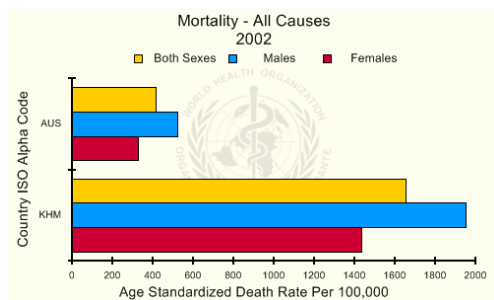
**Title:** Global Burden of Disease in 2002: data sources, methods and results.

**Year:** 2002

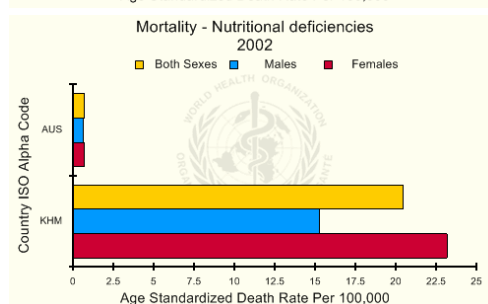
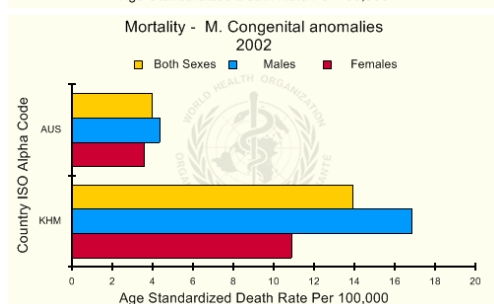
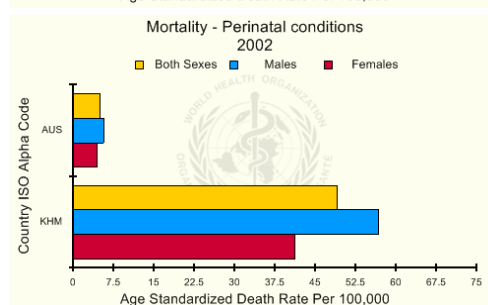
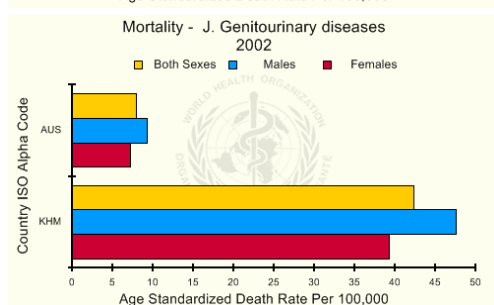
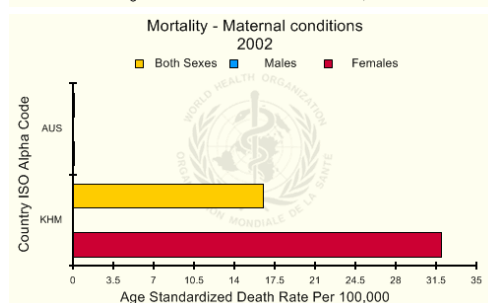
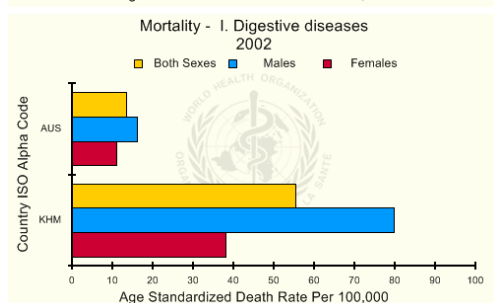
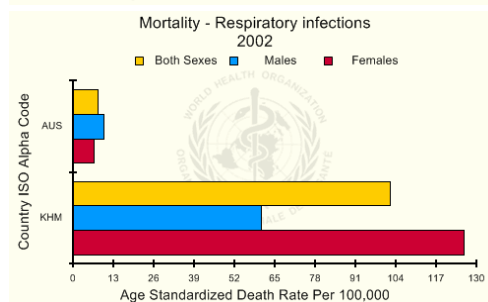
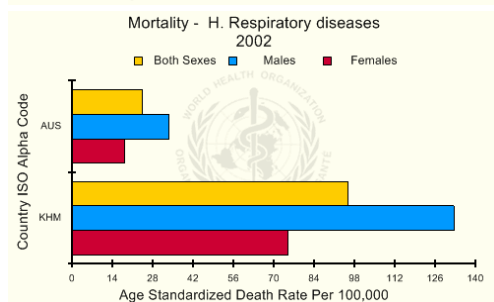
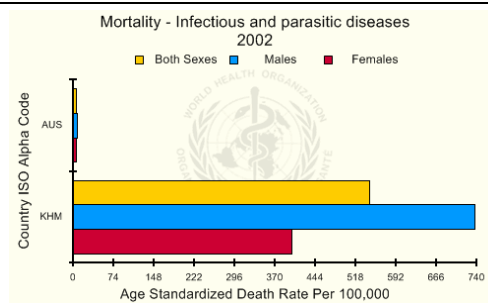
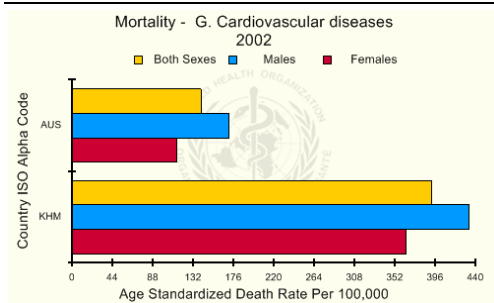
**Coverage:** national

**InfoBase Ref. #:** 199998a1

**Urban/Rural:** both urban and rural populations







## Maldives *cf* Australia

The information below was collected by the following survey:

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**Year:**2002

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**Urban/Rural:**both urban and rural populations

