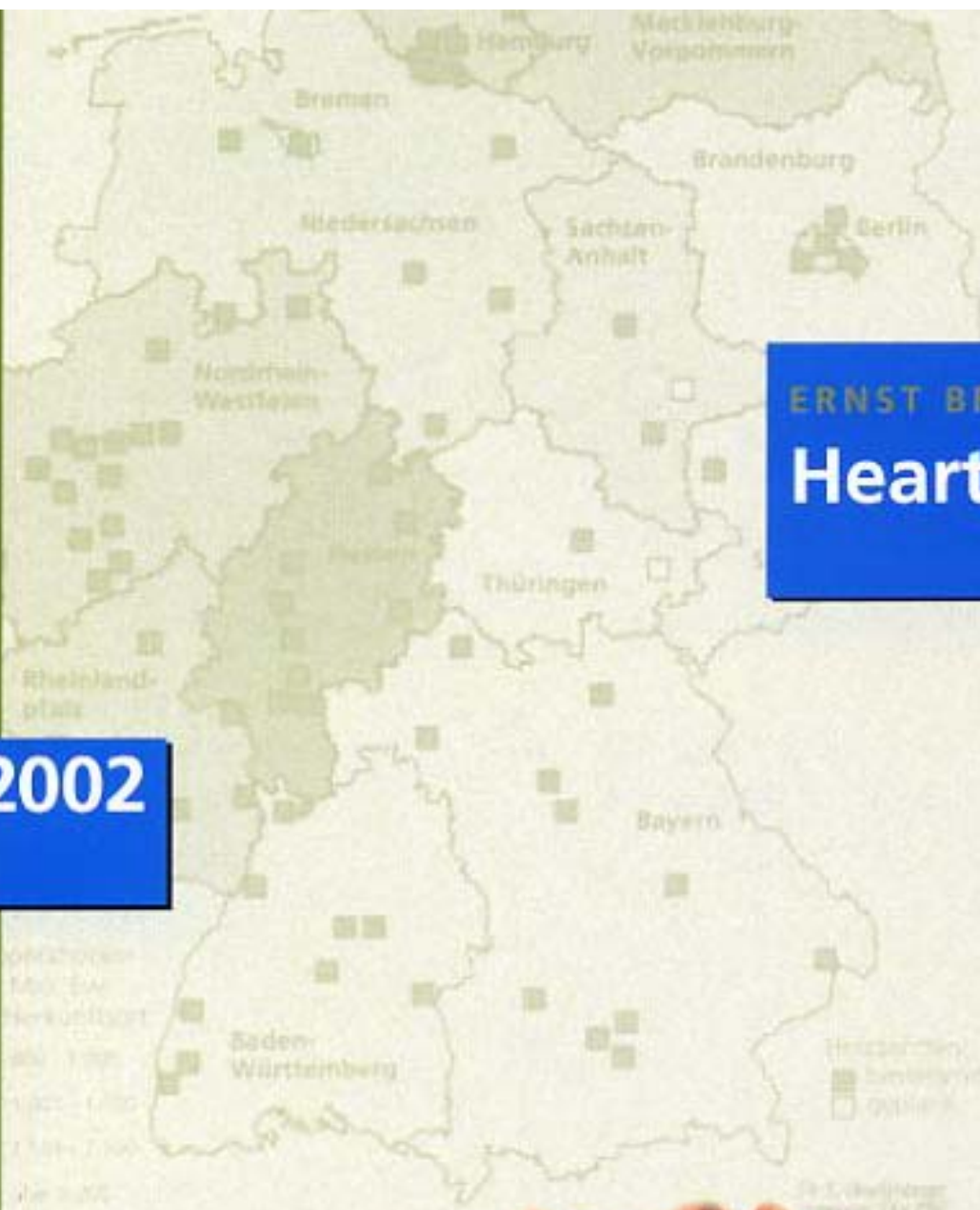


ERNST BRUCKENBERGER

Heart Report 2002

2002



- Lungentransplantation
- Herz- und Lungentransplantation
- Herztransplantation



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Heart Report 2002

- Cardiology and Cardiac Surgery -

**for Germany
including a Europe-wide Comparison**

2002



Author:

Dr Ernst Bruckenberg

Lecturer, Hannover Medical School

Hitzackerweg 1a
30625 Hannover

Telephone: +49 (0)511 / 57 45 53
Fax: +49 (0)511 / 20 34 685
E-mail: ernst@bruckenberg.de
Web site: <http://www.herzbericht.de>
<http://www.bruckenberg.de>

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Multidisciplinary Health Report on Cardiology and Cardiac Surgery

This **15th German Heart Report** gives an analysis of services and care in cardiology and cardiac surgery provided in Germany in 2001/2002 to patients treated on an inpatient or outpatient basis. The report, first published in 1988, has been continually augmented by the author to make it more multidisciplinary in nature, and now includes, along with cardiac surgery and cardiology in the narrower sense, other facts and data pertaining to the treatment and care of this patient group.

- Multidisciplinary knowledge and data on the cost- and expenditure-related effects of cardiology and cardiac surgery, however, remain largely unsatisfactory, although this tends to be a central issue in the debate on public health policy.
- This is the third year for which the provision of services, facilities and procedures in cardiology and cardiac surgery in Austria and Switzerland has also been analysed in some depth for comparative purposes.

The **15th German Heart Report** contains information, pertaining to both Germany as a whole and to its individual federal states, on:

- morbidity and mortality from ischaemic and other heart diseases by patient age and gender;
- provision of selected diagnostic and therapeutic cardiac procedures covered by public health insurance;
- structure of facilities and service provision in cardiology within Germany's federal states;
- structure of facilities and service provision in cardiac surgery within Germany's federal states;
- changes in provision of diagnostic and therapeutic procedures in Germany's federal states since 1979 and 1990;
- post-procedural rehabilitation;
- the effects of the DRG system on cardiology and cardiac surgery;
- cardiology and cardiac surgery in Austria and Switzerland; and
- cardiology and cardiac surgery in Europe.

Analysis of morbidity and mortality for selected heart diseases is based on data from the Federal Bureau of Statistics (Statistisches Bundesamt), Wiesbaden, whose cooperation is greatly appreciated.

Data on the provision (under the ambulatory public health-insurance system) of selected diagnostic and therapeutic procedures on the heart and great vessels were kindly supplied by the Central Institute for Public Health Outpatient Care in the Federal Republic of Germany (Zentralinstitut für die kassenärztliche Versorgung in der Bundesrepublik Deutschland), allowing more comprehensive reporting.

Data on selected diagnoses and therapies in adult cardiology were obtained in a federal state-level survey conducted by the Hospitals Committee of the Council of German Federal State Health Ministry Officials (AOLG). Results were compared with the joint survey carried out by the Commission for Clinical Cardiology (Kommission für klinische Kardiologie) and the Working Group on Interventional Cardiology (for the ESC) and Angiology, which forms part of the German Society for Cardiology and Cardiovascular Research (Deutsche Gesellschaft für Kardiologie - Herz-und Kreislau fforschung).

Data on paediatric catheterization laboratories were provided by the German Society for Paediatric Cardiology (Deutsche Gesellschaft für Kinderkardiologie).

Data on cardiac surgery were - as agreed with the authors in 1989 - collated from the annual federal state-level survey conducted by the German Society for Thoracic and Cardiovascular Surgery (Deutsche Gesellschaft für Thorax-, Herz- und Gefäßchirurgie). Core data were processed by the Working Group on Documentation and Quality Assurance in Cardiac Surgery (Arbeitsgruppe für Dokumentation und Qualitätssicherung in der Herzchirurgie), based at Eppendorf University Hospital, Hamburg ("Hamburger Jahresstatistik").

The Europe-wide comparison of healthcare provision in cardiology and cardiac surgery is based on data from the European Heart Report, published by F. Unger and P. Ghosh, European Heart Institute, Salzburg, Austria.



My special thanks for their generous cooperation in preparing the **15th Heart Report** go to the following:

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PROVISION OF SERVICES AND PROCEDURES IN GERMANY: AN OVERVIEW

Population in 2001

Germany had 82,440,309 inhabitants as at 31 Dec. 2000, with 40,274,676 males and 42,165,633 females.

Morbidity and mortality in 2000 and 2001

In the year 2000, in-hospital morbidity, i.e. the number of hospitalized patients per 100,000 residents (related to place of residence, excluding patients not resident in Germany), was 193 for acute myocardial infarction (ICD-121) and 666 for chronic ischaemic heart disease (ICD-125).

In the year 2001, the mortality rate, i.e. the number of deceased patients per 100,000 residents, was 79 for acute myocardial infarction (ICD-121) and 113 for chronic ischaemic heart disease (ICD-125).

Cardiology in 2002

As at 31 Dec. 2002, there were 2,862 clinically active cardiologists.

A total of 543 left heart catheterization laboratories (adults and infants) were in operation.

The number of left heart catheterization procedures performed was 646,547.

A total of 207,937 balloon angioplasties (PTCAs) were performed, involving the use of 148,853 intracoronary stents.

Cardiological care provided under the public health-insurance system for outpatients in 2001/2002

As at 31 Dec. 2002, a total of 2,031 cardiologists had provided services under the ambulatory public health-insurance system. The following diagnostic and therapeutic procedures were performed on the heart and great thoracic vessels in 2001:

165,850	stress echocardiograms
3,461,317	Doppler echocardiograms
7,566	Swan-Ganz catheter procedures
116,141	left heart catheterization procedures
15,745	balloon dilatations
182,951	myocardial scintigrams.

Cardiac surgery in 2002

Nationwide, 540 cardiac surgeons and thoracic/cardiovascular surgeons were clinically active.

There were 79 cardiac surgical centres in operation.

96,194 cardiac operations were performed with extracorporeal circulation (ECC) and 48,646 without ECC.

74.0 % of patients were aged over 60.

39.1 % of cardiac procedures with ECC were performed on patients over 70.

69.0 % of cardiac procedures with ECC were performed on men, and 31 % on women.

5,573 patients were registered on waiting lists.

Paediatric cardiology and paediatric cardiac surgery (procedures to correct congenital heart defects) in 2002

As at 31 Dec. 2002 there were 287 paediatric cardiologists active nationwide.

In 27 heart centres, 1,715 procedures to correct congenital heart defects were performed with ECC in infants under 1 year of age, 1,826 in children and adolescents up to the age of 17, and 883 in adolescents and adults aged 17 and over.

Changes in provision of diagnostic and therapeutic procedures between 1990 and 2001/2002

Between 1990 and 2001

The mortality rate from acute myocardial infarction declined from 107 to 79.

The mortality rate from chronic ischaemic heart disease increased from 102 to 113.

Between 1990 and 2002

The number of left heart catheterization laboratories increased from 234 to 543.

The number of heart centres increased from 46 to 79.

The number of left heart catheterization procedures rose from 193,673 to 646,547.

The number of PTCAs increased from 33,785 to 207,937.

The number of cardiac operations with ECC rose from 38,712 to 96,194.



Medical rehabilitation in 2002

In the year 2002, there were 154 rehabilitation hospitals approved to treat diseases of the heart and vascular system.

Transplant surgery in 2002

In the year 2002, a total of 395 heart transplants, 198 lung transplants, 2,325 kidney transplants, 756 liver transplants and 163 pancreas transplants were performed. The overall number of transplanted organs was 3,837.

Expenditure by health insurance providers in 2001

An estimated total of € 2.9 billion was spent in the year 2002 on left heart catheterization procedures, PTCA's (including stents), cardiac operations and cardiac rehabilitation.

Comparison with Austria and Switzerland (per million inhabitants)

Numbers of left heart catheterization procedures, PTCA's and cardiac operations (excluding cardiac valve operations) were substantially higher for Germany than for Austria and Switzerland.

Europe-wide comparison (per million inhabitants, 2001)

In a Europe-wide comparison, Germany ranked first in terms of left heart catheterization procedures and cardiac operations with ECC, and second in terms of PTCA's.