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Treatment

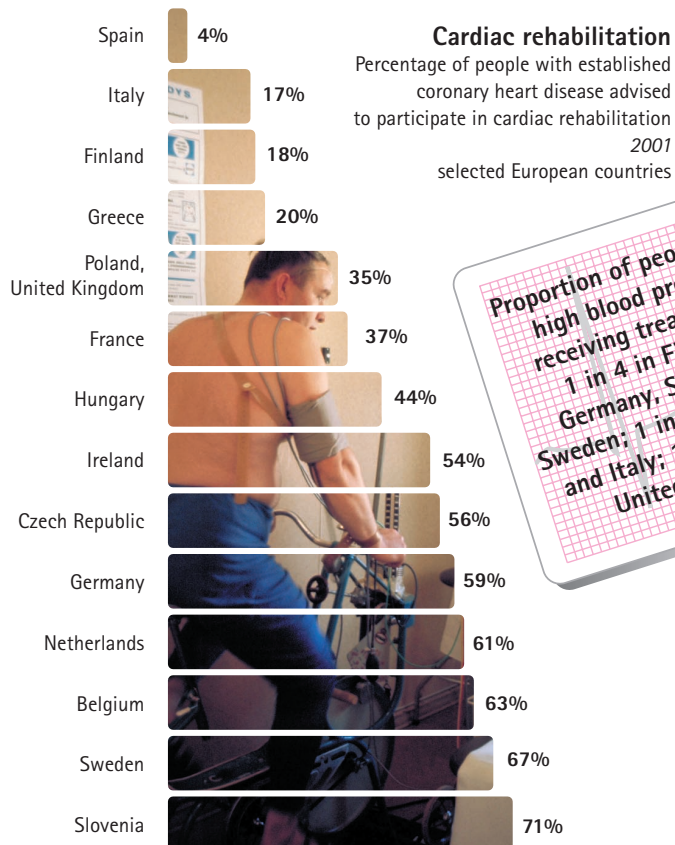
"If you do not repair your gutter, you will have your whole house to repair."
Old Spanish proverb

In 1931, Paul Dudley White noted that there was no specific treatment for coronary heart disease. He described the treatment of high blood pressure as "difficult and almost hopeless". Today, effective and relatively inexpensive medication is available to treat nearly all cardiovascular diseases, including high blood pressure.

Improvements in surgical techniques have led to safer operations. Effective devices have been developed, such as pacemakers, prosthetic valves, and patches for closing holes in the heart. Other developments have led to a wide array of interventions that often make surgery unnecessary.

Together, these advances in treatment improve quality of life and reduce premature death and disability. They also add to the rising costs of health care. Increasingly, high-technology procedures are chosen over less expensive, but nevertheless effective, strategies.

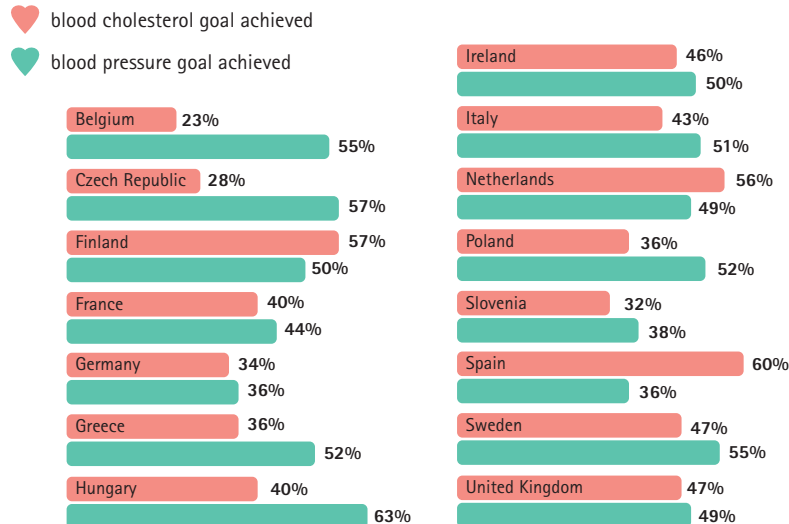
In addition, marked disparities in the quality of treatment can be seen in groups of different race, ethnicity, sex, and socioeconomic status. In essence, many patients who could benefit from treatment remain untreated, or inadequately treated. In future, increased emphasis needs to be placed on the appropriate use of proven treatments for everyone with coronary heart disease or stroke.



Proportion of people with high blood pressure receiving treatment: 1 in 4 in Finland, Germany, Spain and Sweden; 1 in 3 in Canada and Italy; 1 in 2 in the United States.

Patients reaching blood pressure and blood cholesterol goals during treatment

Percentage of people aged 70 years or below with established CVD who achieve blood pressure goal of less than 140/90 mmHg, or blood cholesterol goal of less than 5.0 mmol/l
2001
selected European countries



Types of treatment

Selected medication, devices and operations

Medication used in treatment of

- 1 High blood pressure
- 2 Coronary heart disease
- 3 Heart failure
- 4 Arrhythmia (heart rhythm disorders)
- 5 Blood clotting disorders

Devices

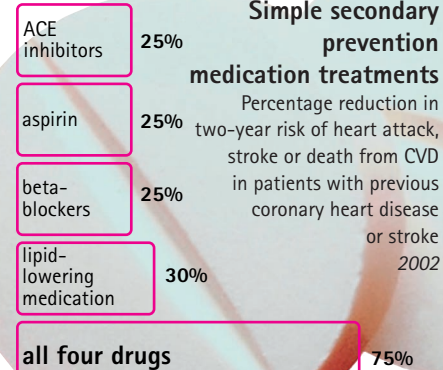
- 1 Pacemakers
- 2 Implantable defibrillators
- 3 Coronary stents
- 4 Prosthetic valves
- 5 Artificial heart

Operations

- 1 Coronary artery bypass
- 2 Balloon angioplasty
- 3 Valve repair and replacement
- 4 Heart transplantation
- 5 Artificial heart operations

Simple secondary prevention medication treatments

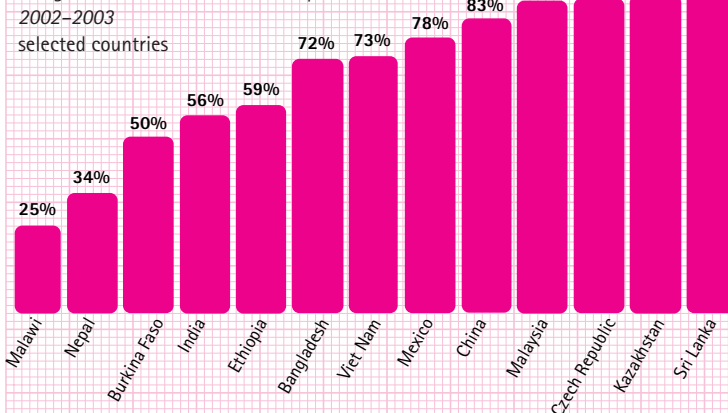
Percentage reduction in two-year risk of heart attack, stroke or death from CVD in patients with previous coronary heart disease or stroke
2002



Worldwide, treatment of cardiovascular diseases and their risk factors remains inadequate for most patients.

Diabetes treatment

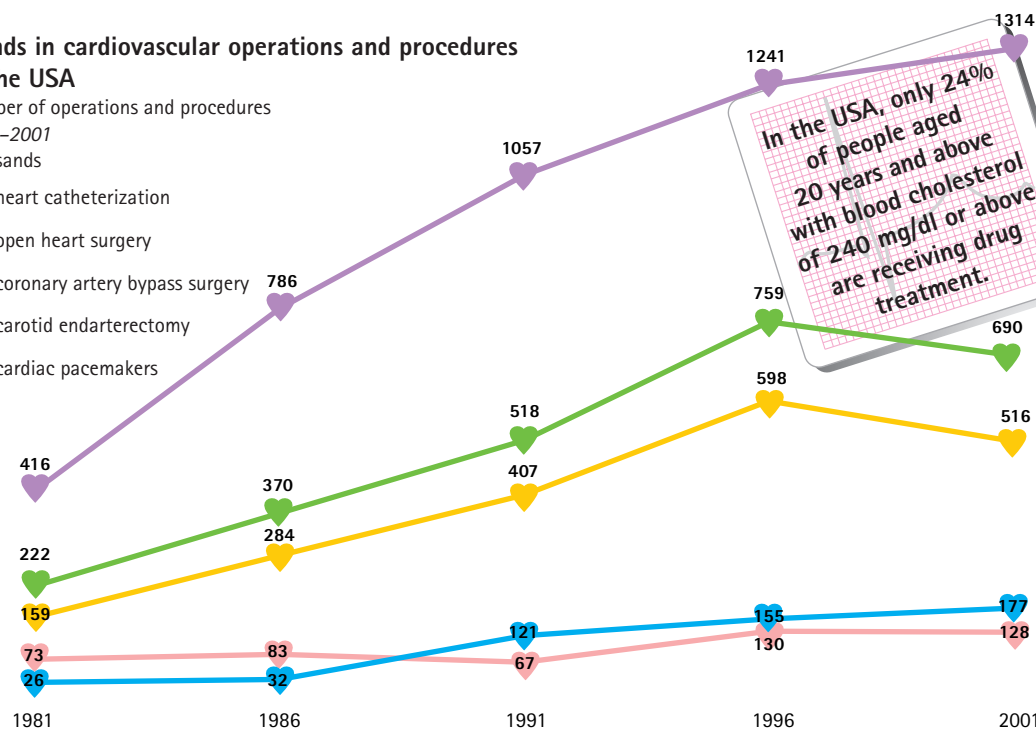
Percentage of persons with diabetes being treated with medication or special diet
2002-2003
selected countries



Trends in cardiovascular operations and procedures in the USA

Number of operations and procedures
1981-2001
thousands

- heart catheterization
- open heart surgery
- coronary artery bypass surgery
- carotid endarterectomy
- cardiac pacemakers



In the USA, only 24% of people aged 20 years and above with blood cholesterol of 240 mg/dl or above are receiving drug treatment.