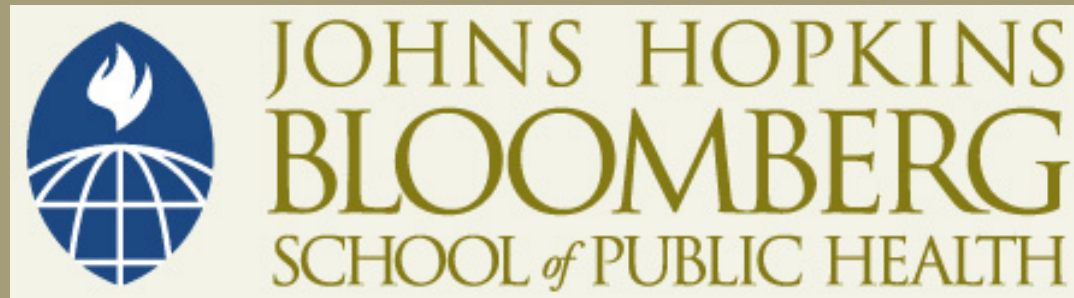


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JOHNS HOPKINS
BLOOMBERG
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Section C: Morbidity Coding Systems, Part 2

Adnan Hyder, MD, PhD

Global Burden of Disease Study

- Causes of deaths and disabilities

Group 1	Communicable diseases, maternal, perinatal, and nutritional disorders
Group 2	Noncommunicable diseases
Group 3	Intentional and unintentional injuries

Summary Measures of Population Health: 1

- Combines mortality and disability impact of diseases on population
- Measures impact in terms of time lost from premature mortality and disability
- Time expressed as loss of healthy life (in state of perfect health)

Summary Measures of Population Health: 2

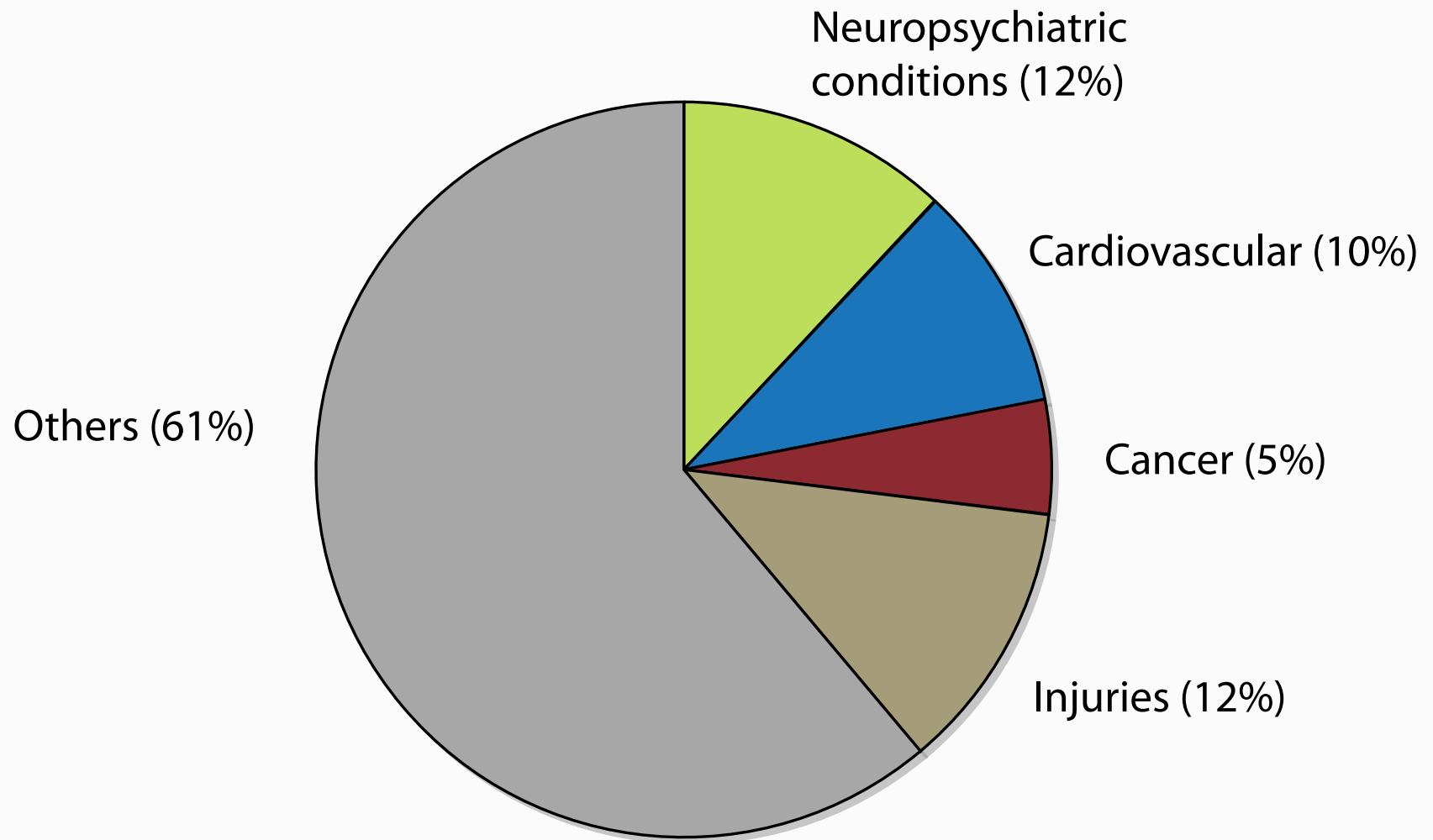
- Disability-Adjusted Life Years (DALY)
- Healthy Life-Years (HeaLY)
- Years Lived with Disabilities (YLD)
- Disability-Adjusted Life Expectancy (DALE)
- Quality-Adjusted Life Years (QALY)

Global Burden of Disease Study

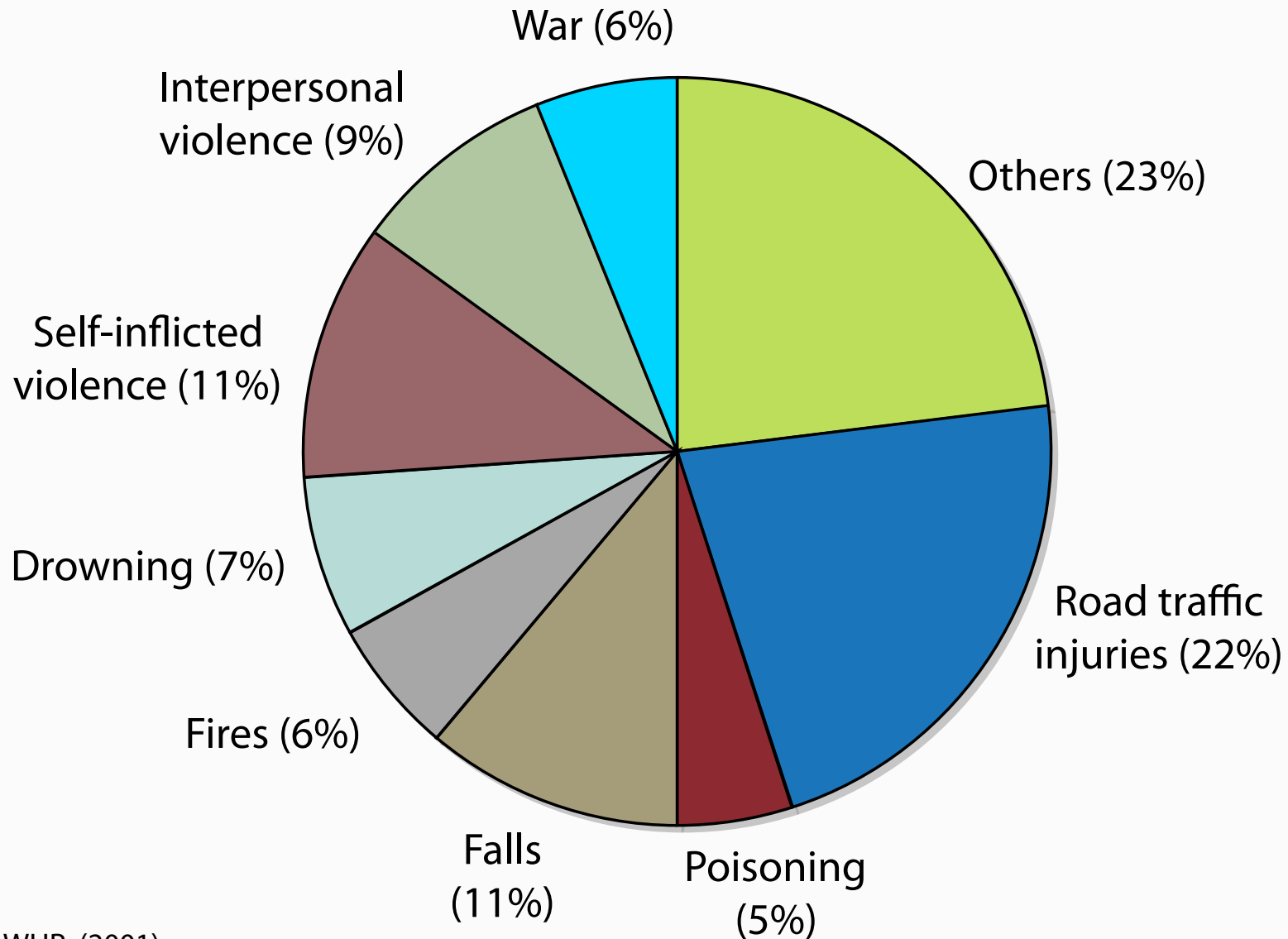
- Estimated DALYs by disease group

Causes	Group	1990 DALYs %	2020 DALYs %
Group 1	Communicable diseases, maternal, perinatal, and nutritional disorders	43.9	20.1
Group 2	Non-communicable diseases	40.9	59.7
Group 3	Intentional and unintentional injuries	15.2	20.1

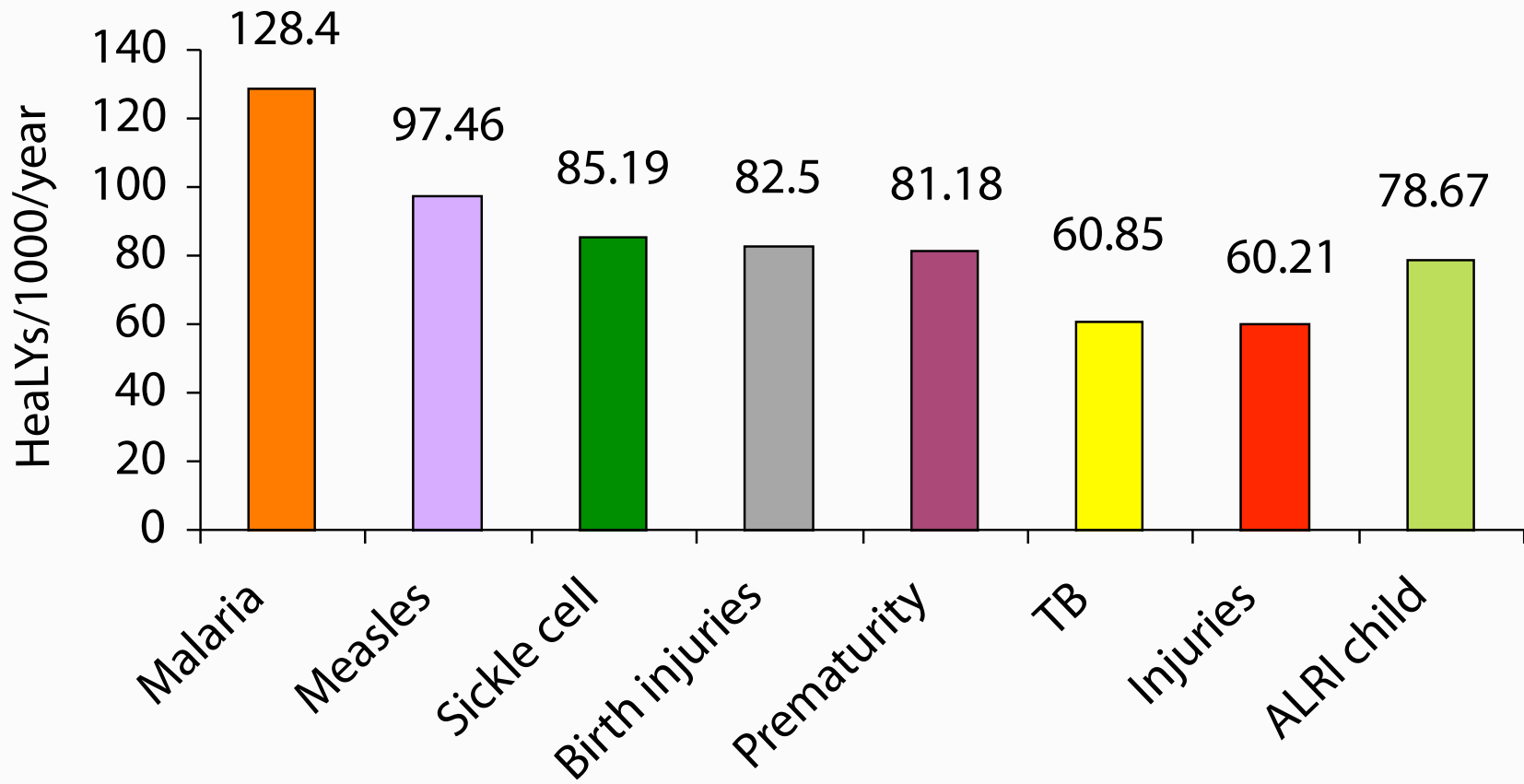
DALYs by Cause Globally, 2000



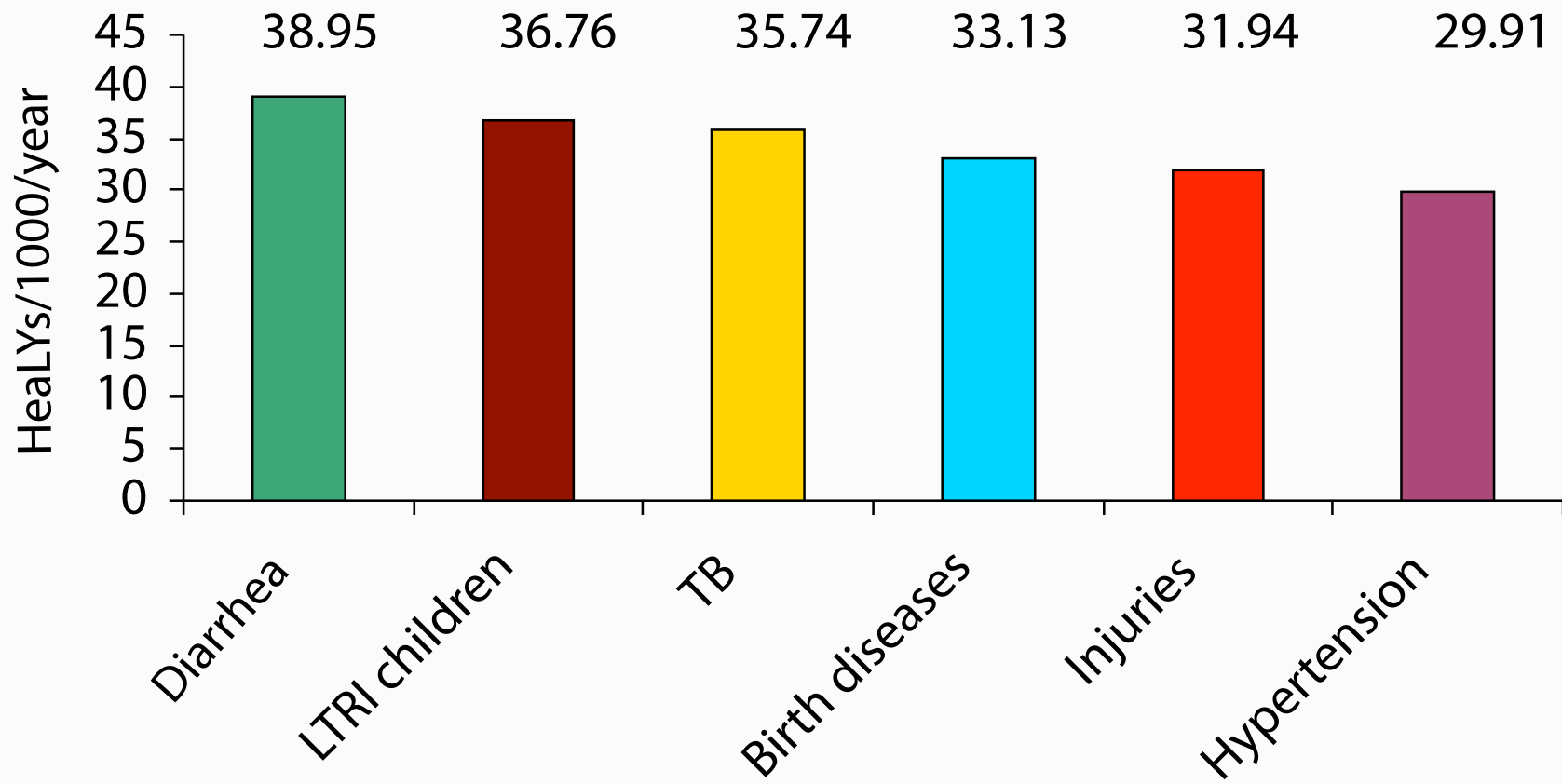
Injury DALYs by Specific Cause Globally, 2000



Loss of Healthy Life-Years in Ghana, by Disease (1981)



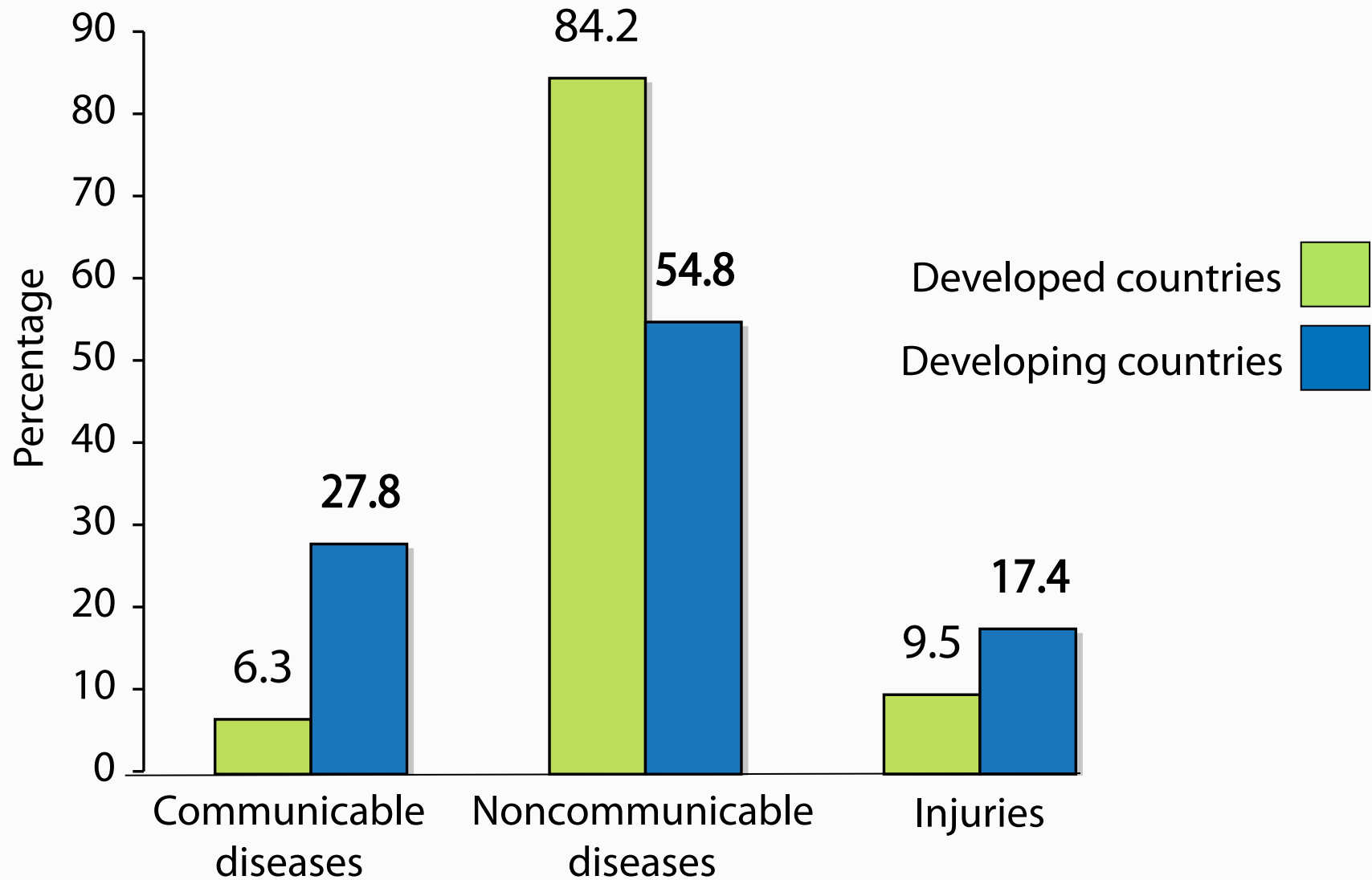
Healthy Life-Years Lost in Pakistan (1990)



Causes of Years Lived with Disability (YLDs)— 1990

Disease or injury	Thousands
■ Unipolar major depression	■ 50,810
■ Anemias	■ 21,987
■ Falls	■ 21,949
■ Alcohol use	■ 15,770
■ Chronic obstructive pulmonary disease	■ 14,692

Percentage Distribution of YLDs by Causes (1990)



Healthy Life Expectancy Rankings

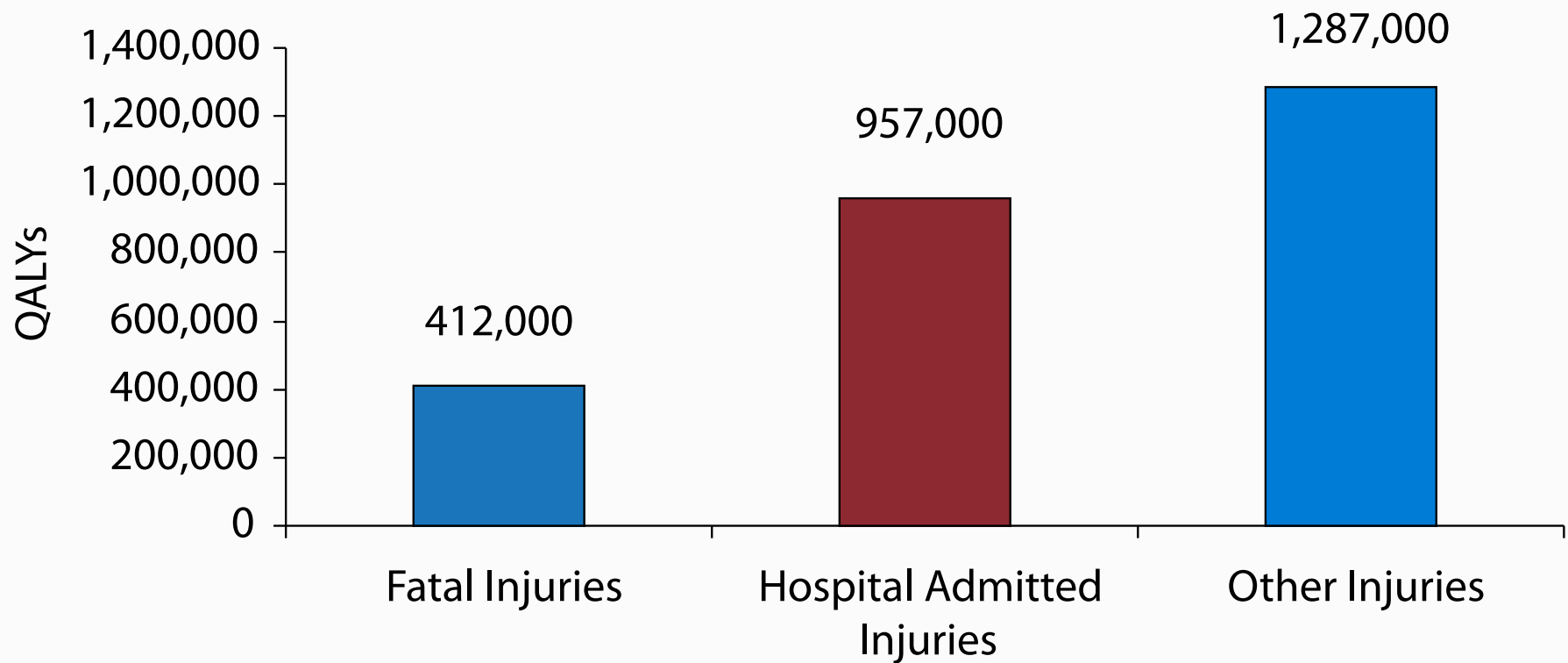
- Based on the World Health Organization's Disability Adjusted Life Expectancy (DALE)
- Disability Adjusted Life Expectancy (DALE) summarizes the expected number of years to be lived in what might be termed the equivalent of “full health”
- To calculate DALE, the years of ill-health are weighted according to severity and subtracted from the expected overall life expectancy to give the equivalent years of healthy life

DALE

Rank	WHO Member State	DALE in Years		
		Overall	Male	Female
1	Japan	74.5	71.9	77.2
2	Australia	73.2	70.8	75.5
3	France	73.1	69.3	76.9
4	Sweden	73.0	71.2	74.9
5	Spain	72.8	69.8	75.7

QALY Losses Due to Unintentional Injuries

- For children ages 0 to 19 in the United States, 1996



Percentage of QALY Loss

- Due to unintentional injuries to children ages 0 to 19 in the United States, 1996

