



# What we Know about Effective Adolescent Health Programs



A discussion based on chapter 59 of  
Disease Control in Developing  
Countries, 2<sup>nd</sup> edition

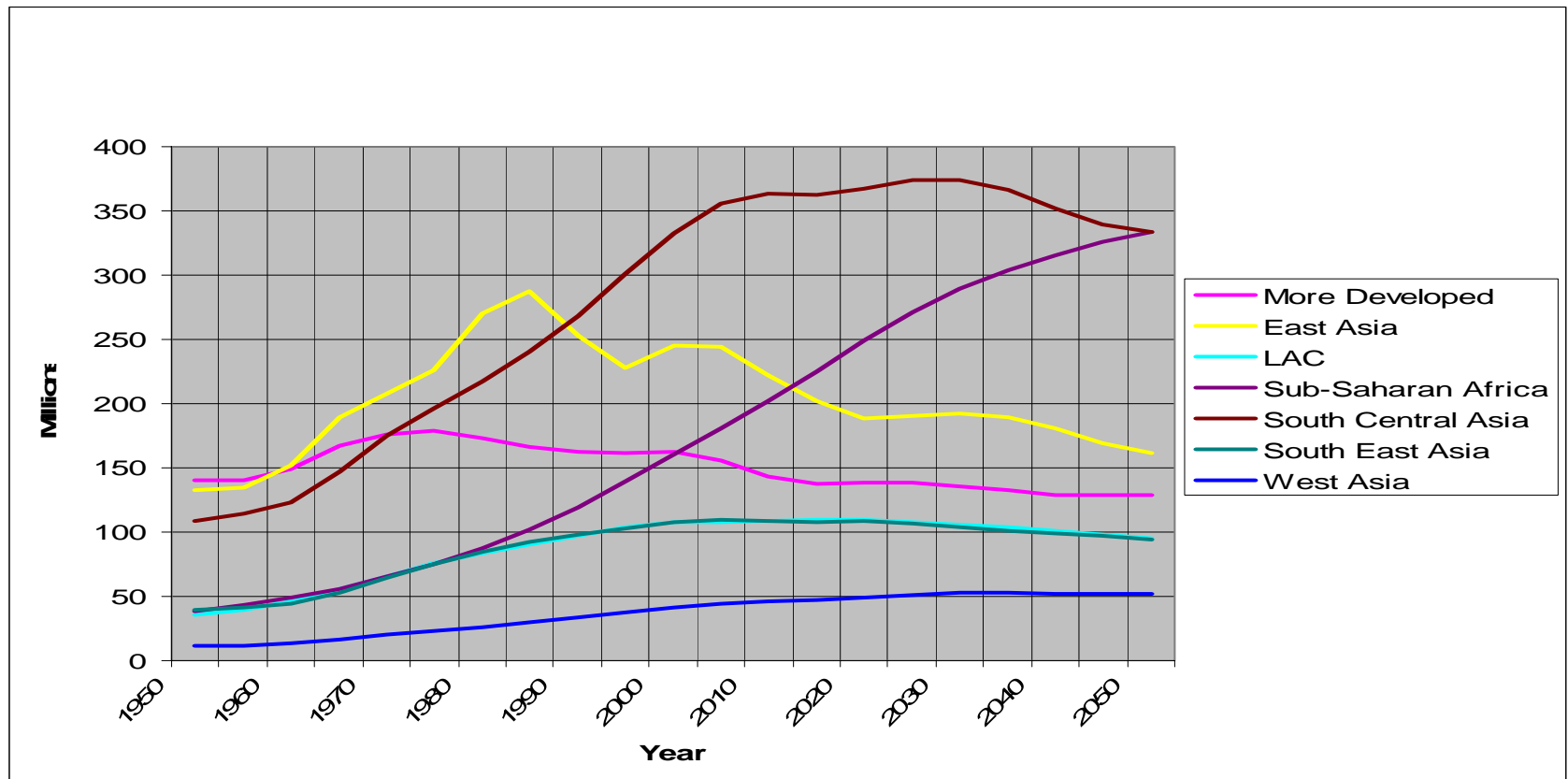
Elizabeth Lule & Jim Rosen

October 18, 2007

World Bank



# Trend in Population of 10-19 Year Olds by Selected Region, 1950-2050

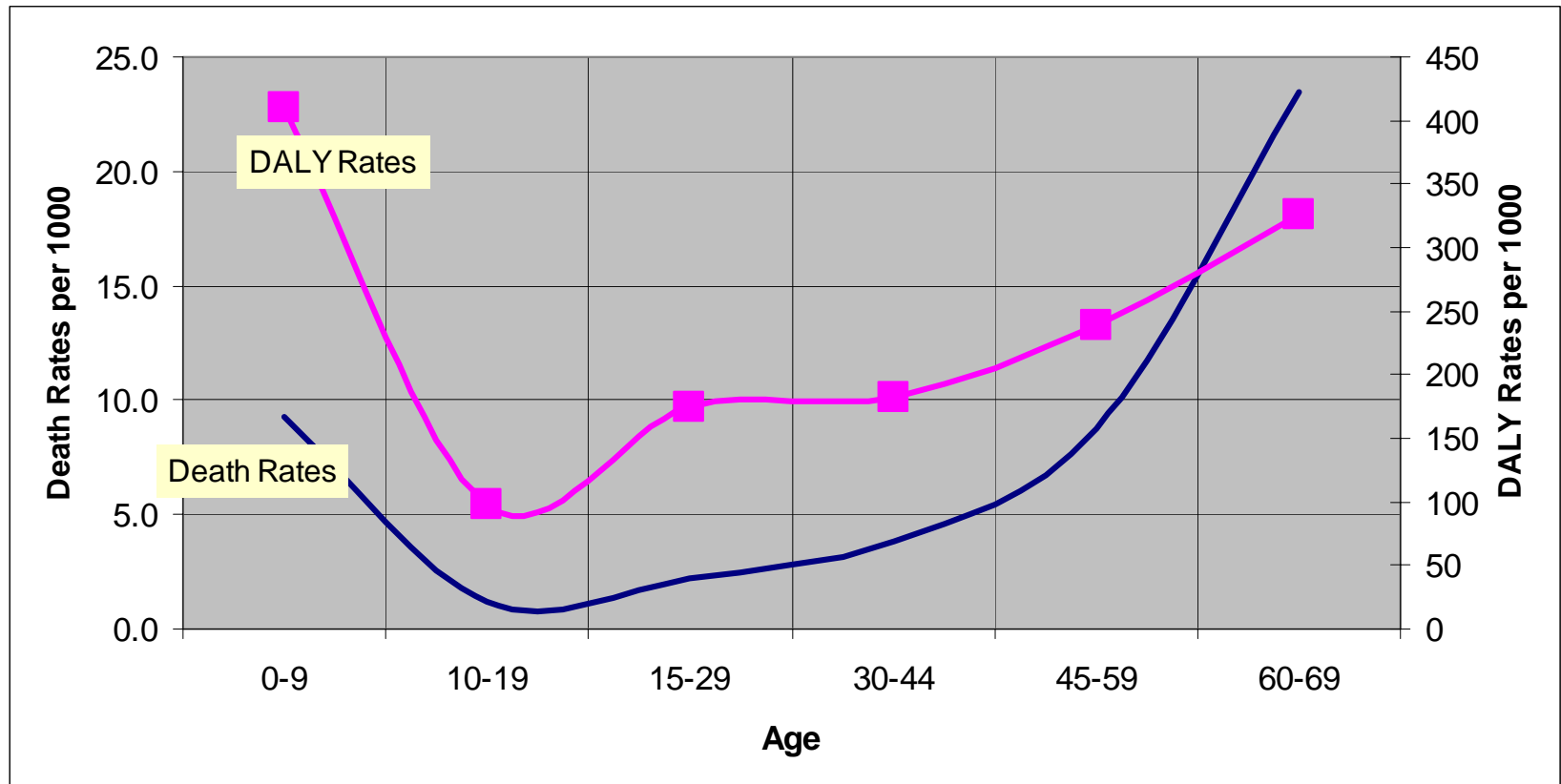


Notes:

Source: UN Population Division, World Population Prospects, 2006 Revision



## Are Adolescents Healthy? Yes

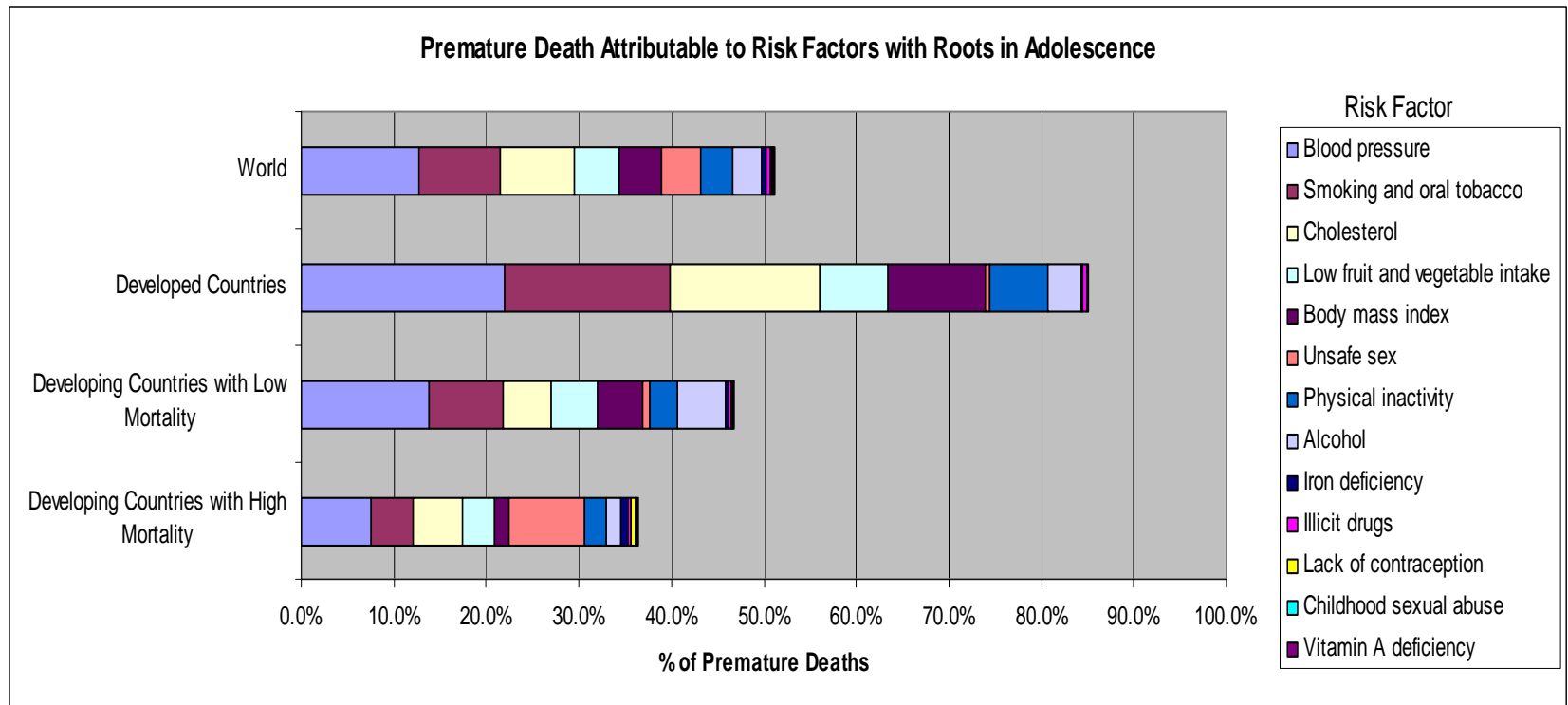


Notes:

Source: WHO, 2002, Global Burden of Disease Data and UN Population Division, World Population Prospects, 2006 Revision



# Are Adolescents Healthy? Yes, but ...



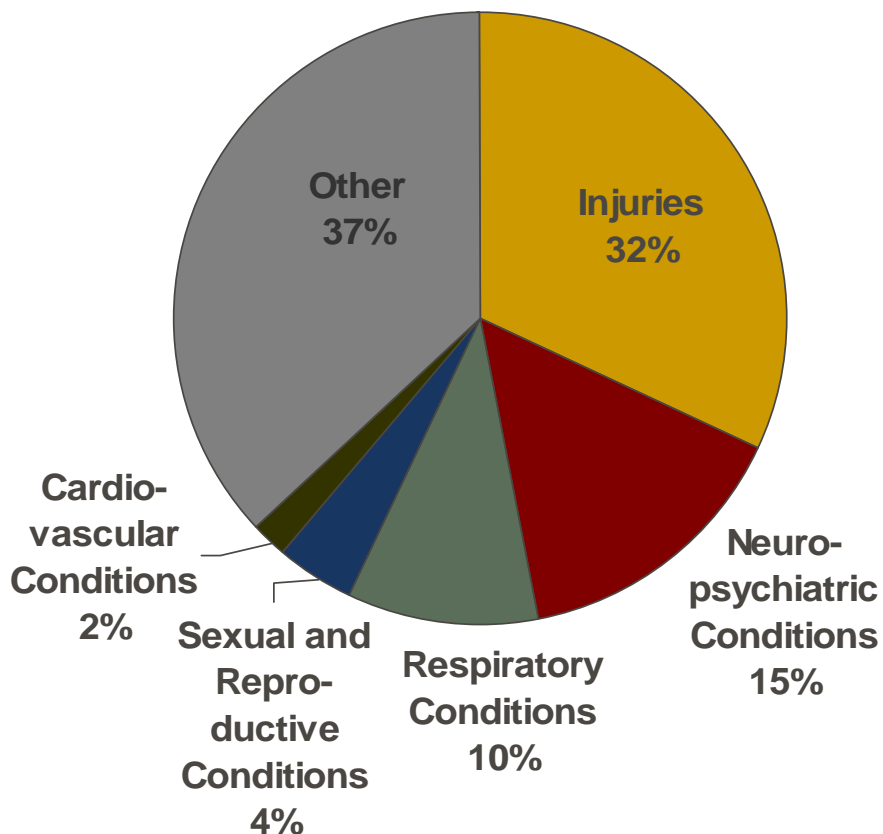
Notes:

Source: WHO, Global Burden of Disease Data

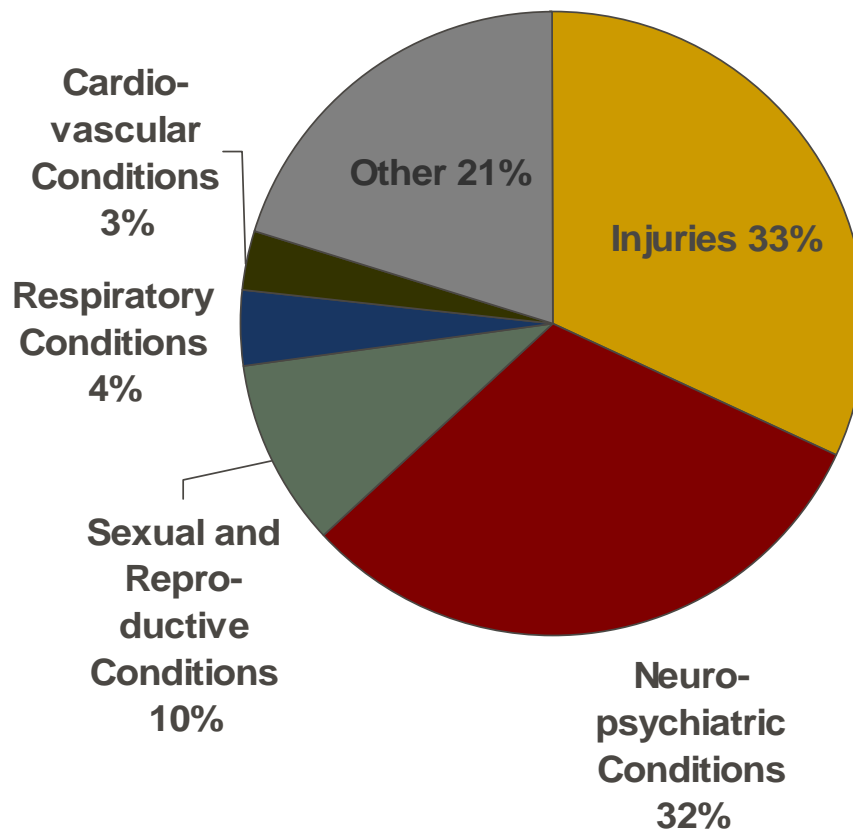


# Worldwide Distribution of DALYs Lost Among Young Men, By Age Group, 2002

### Ages 5-14



### Ages 15-29



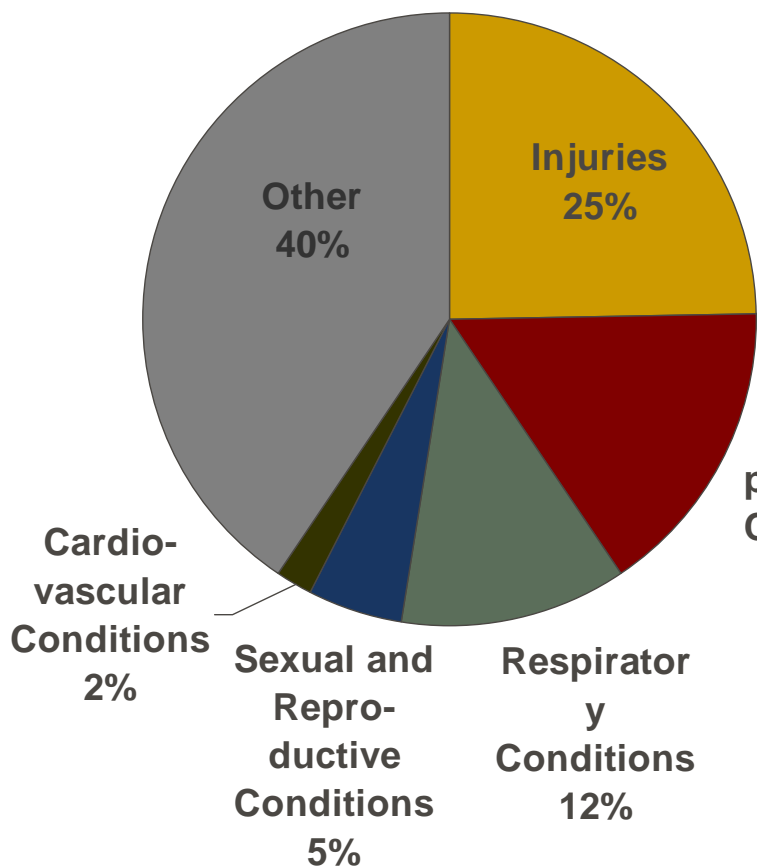
Notes: Numbers are rounded.

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 59.1

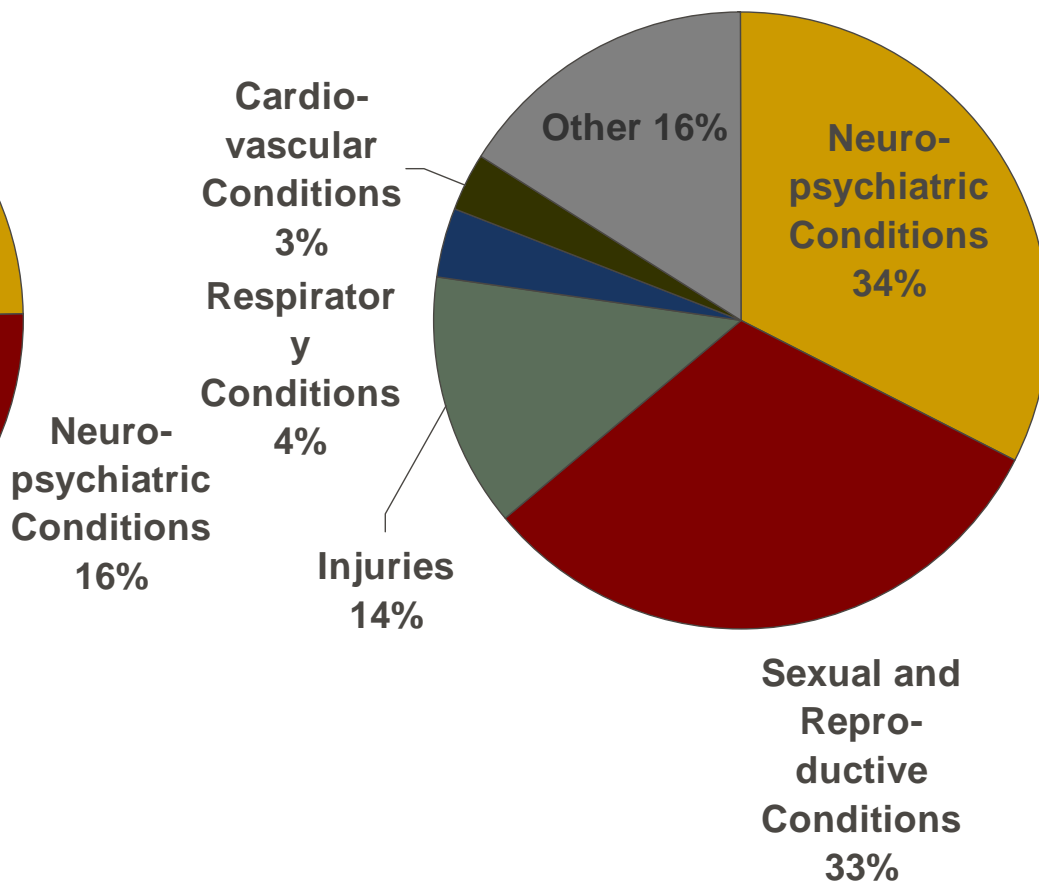


# Worldwide Distribution of DALYs Lost Among Young Women, By Age Group, 2002

**Ages 5-14**



**Ages 15-29**



Notes: Numbers are rounded.

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 59.1

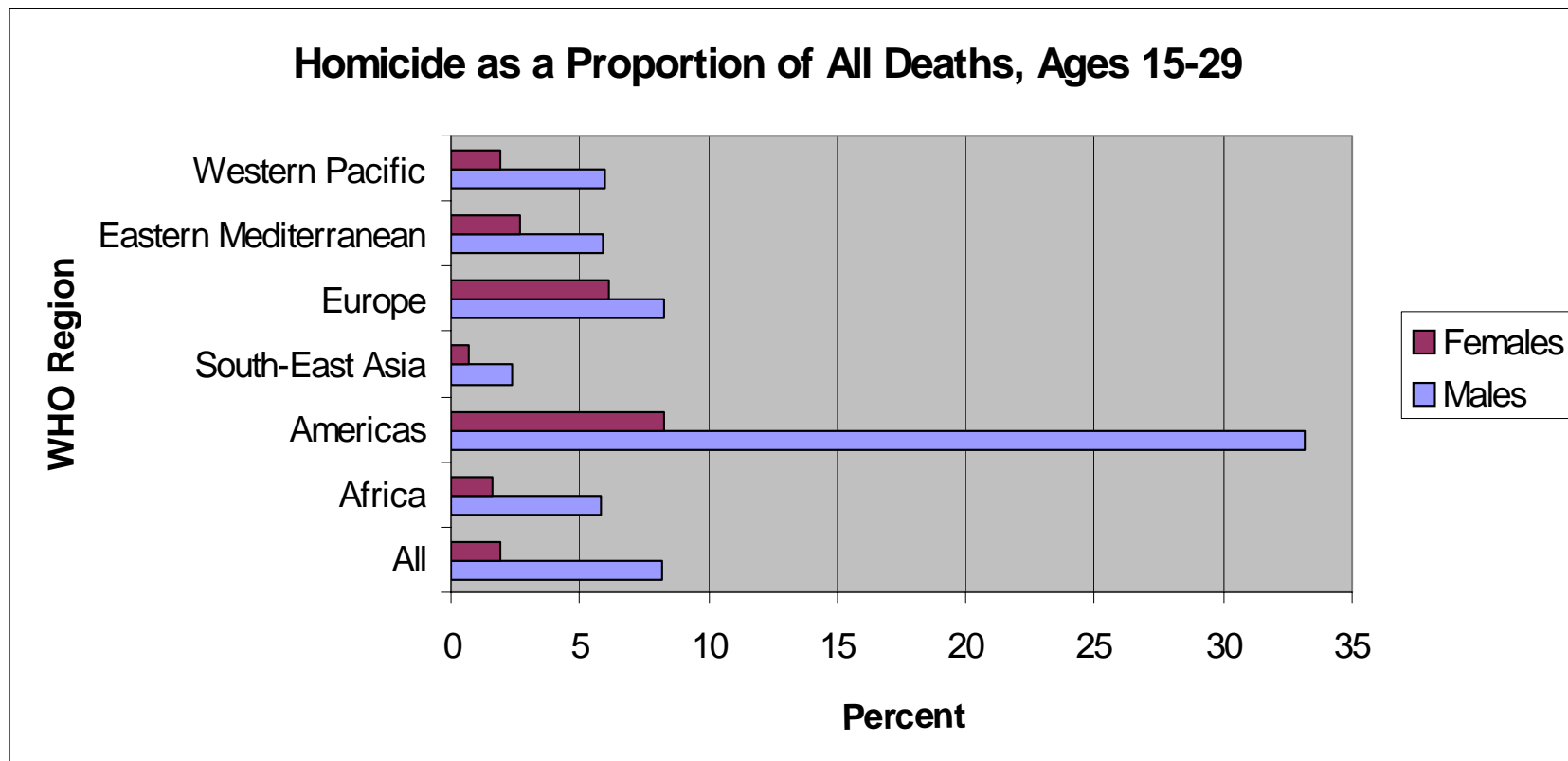


## Major Adolescent Health Problems

- Mental disorders
- Intentional injuries
- Unintentional injuries
- Poor diet and nutrition, lack of exercise.  
Tobacco and alcohol
- Sexual and reproductive health, including  
HIV/AIDS



# Homicide

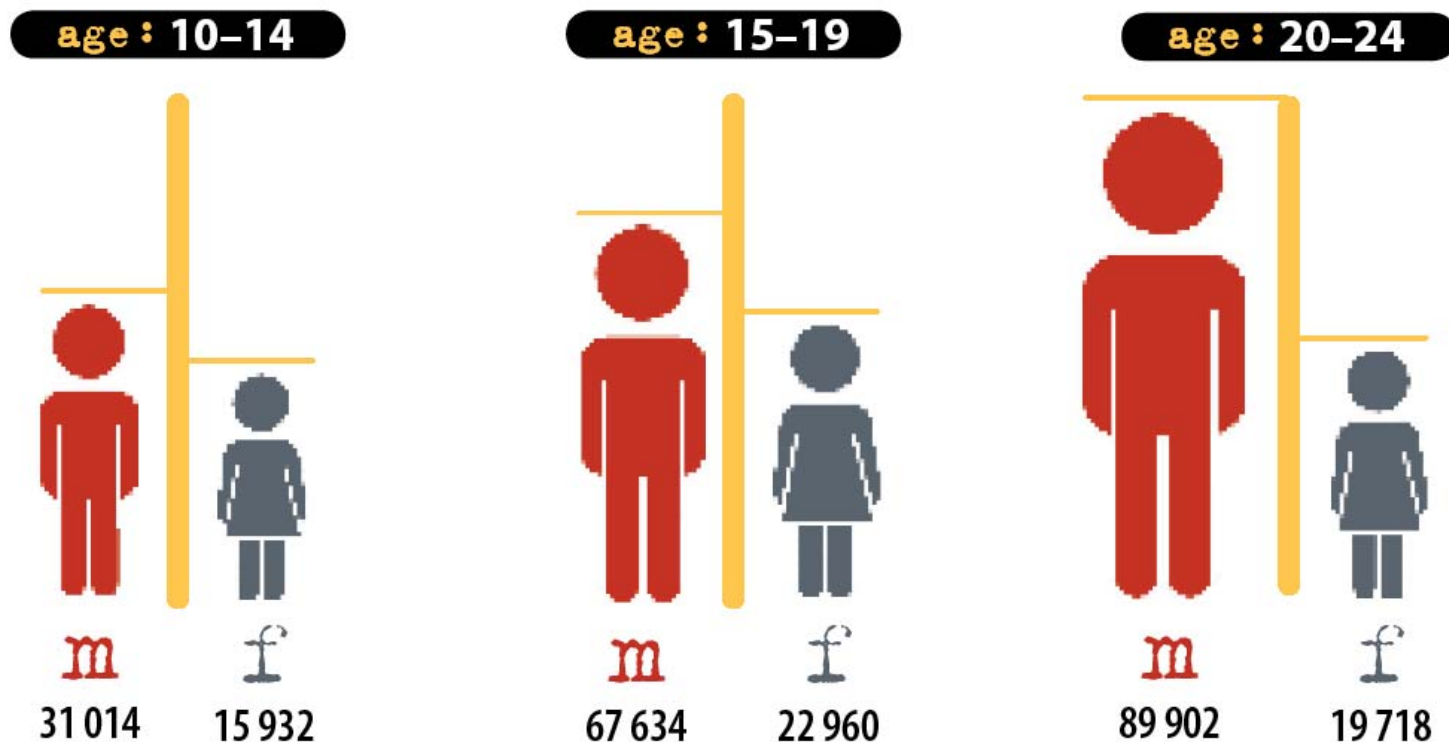


Notes:

Source: WHO, 2002, World Report on Violence and Health



## Deaths from Road Crashes, 2002

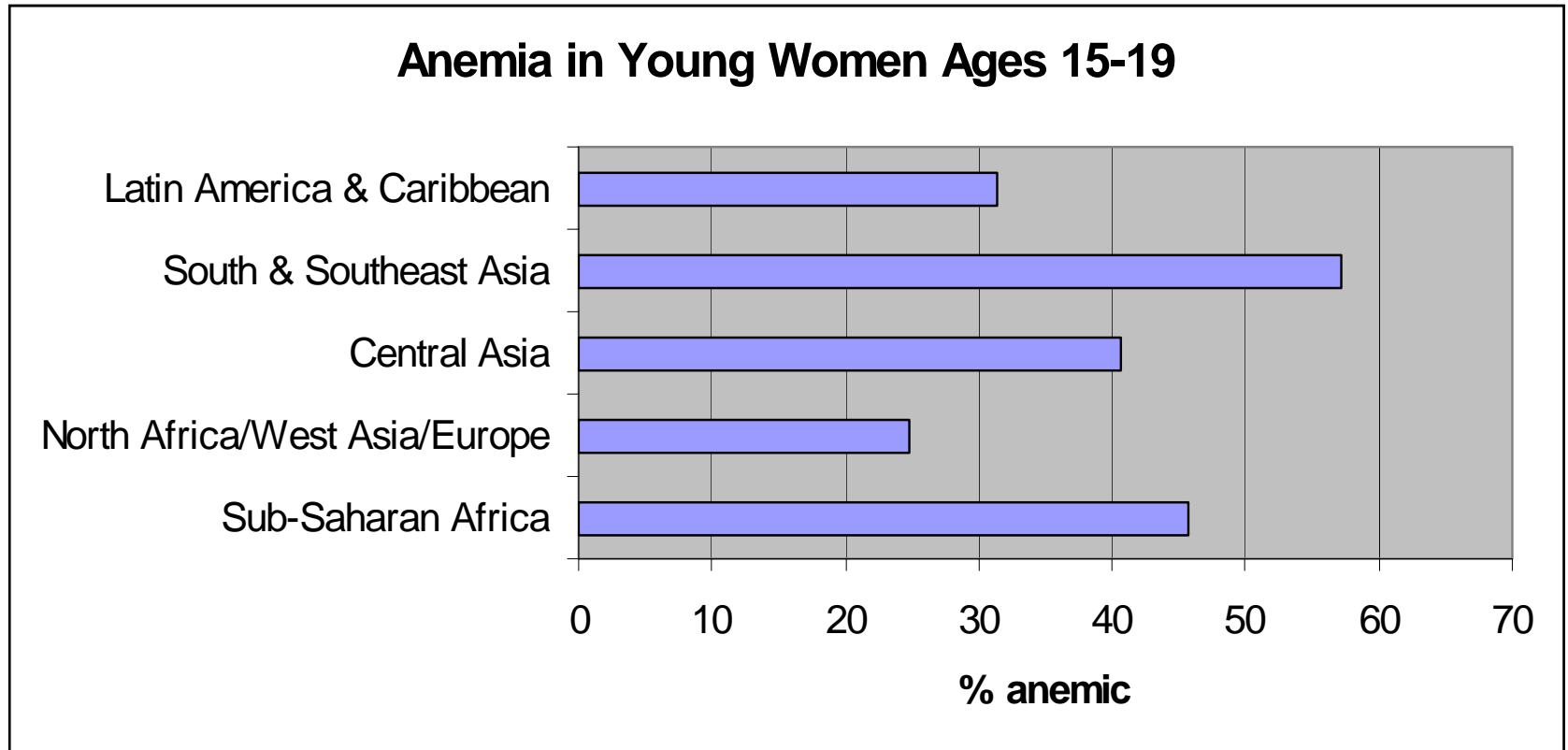


Notes:

Source: WHO, 2007, Youth and Road Safety



# Anemia

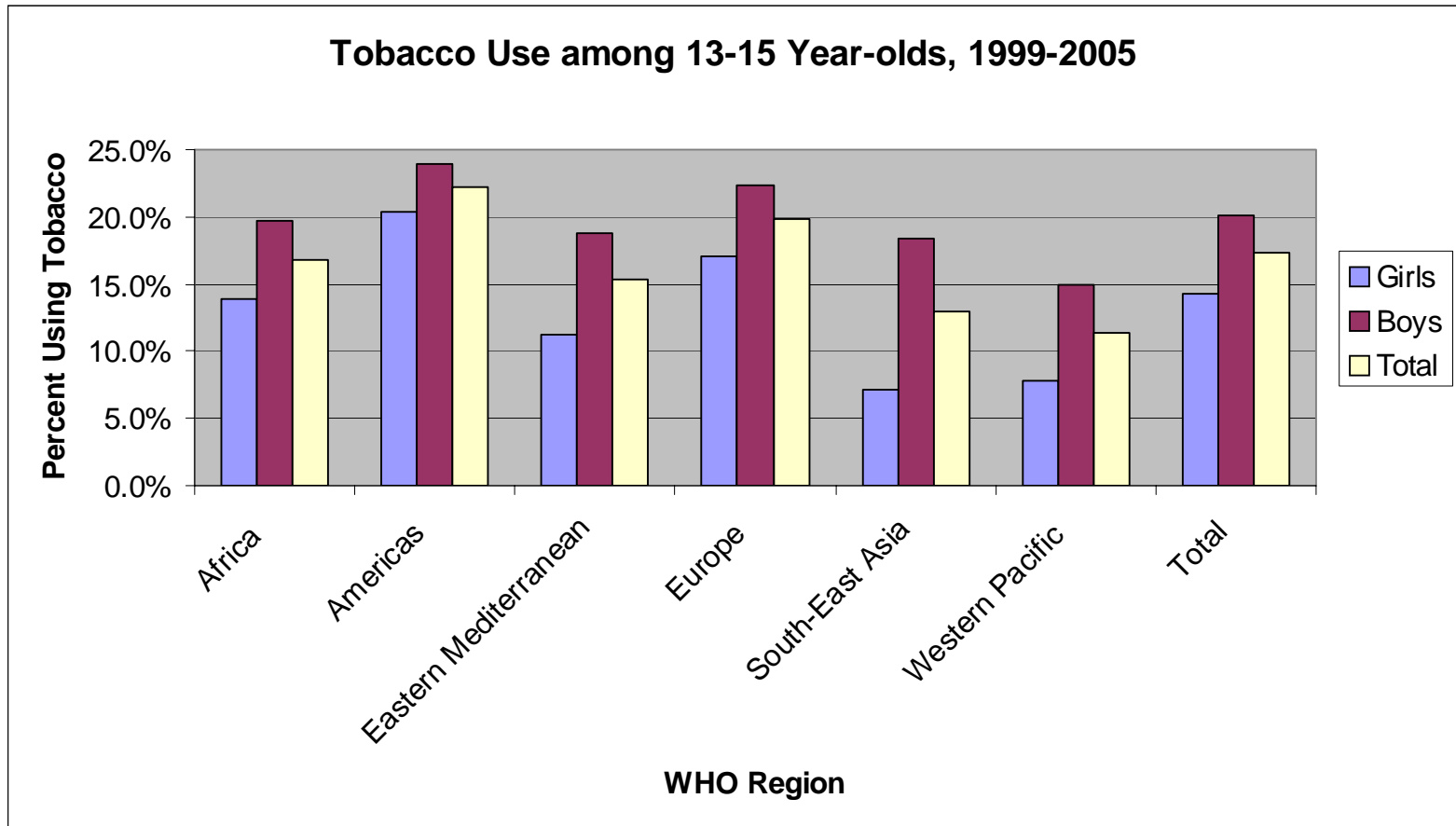


Notes:

Source: Demographic and Health Surveys, early to mid 2000s



# Youth and Tobacco



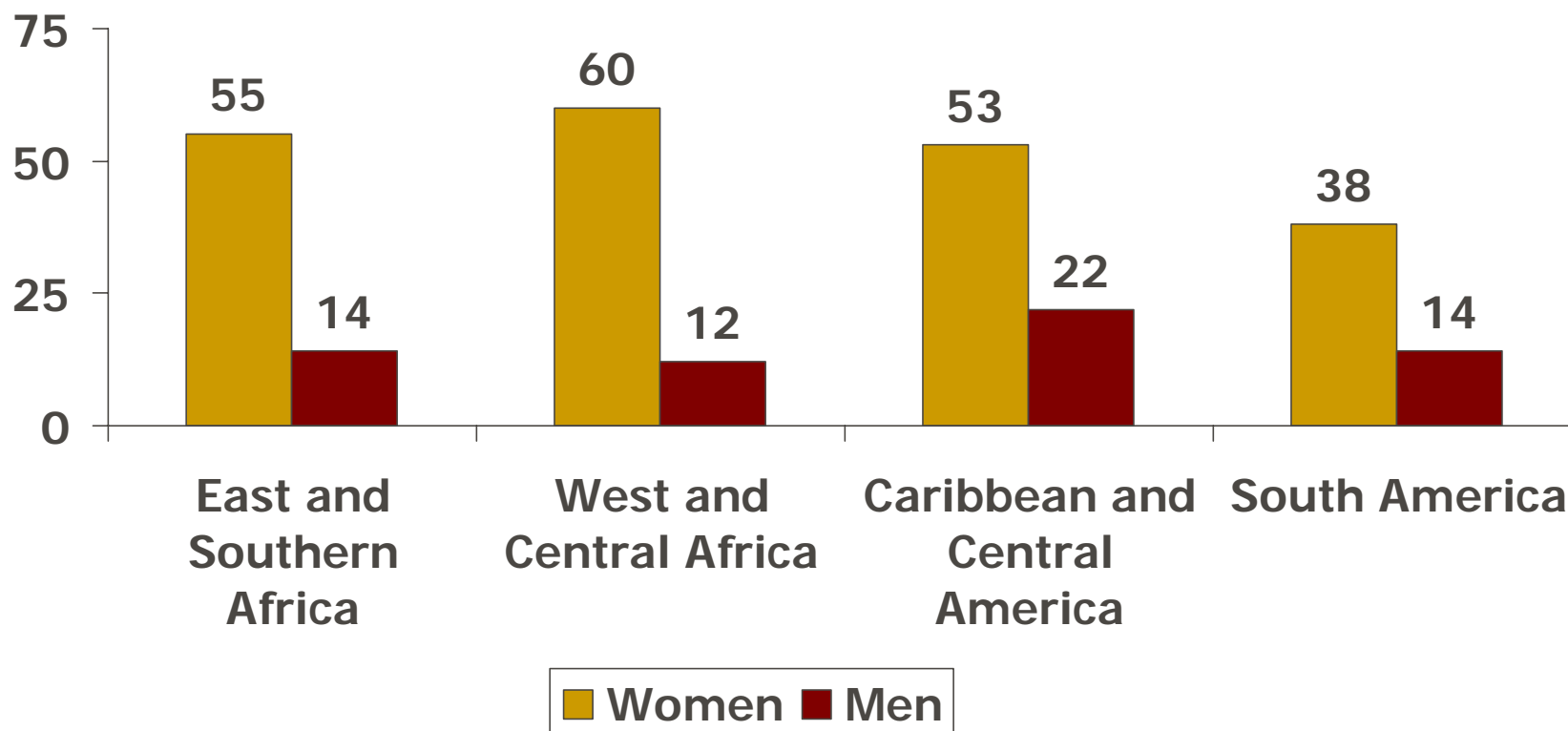
Notes: Any tobacco product, including cigarettes.

Source: Mochizuki-Kobayashi, Y. et al. 2006. Use of Cigarettes and Other Tobacco Products Among Students Aged 13--15 Years --- Worldwide, 1999—2005. MMWR Weekly.



# Young People Ages 20-24 Who Were Married Before Age 20, By Gender

Percent



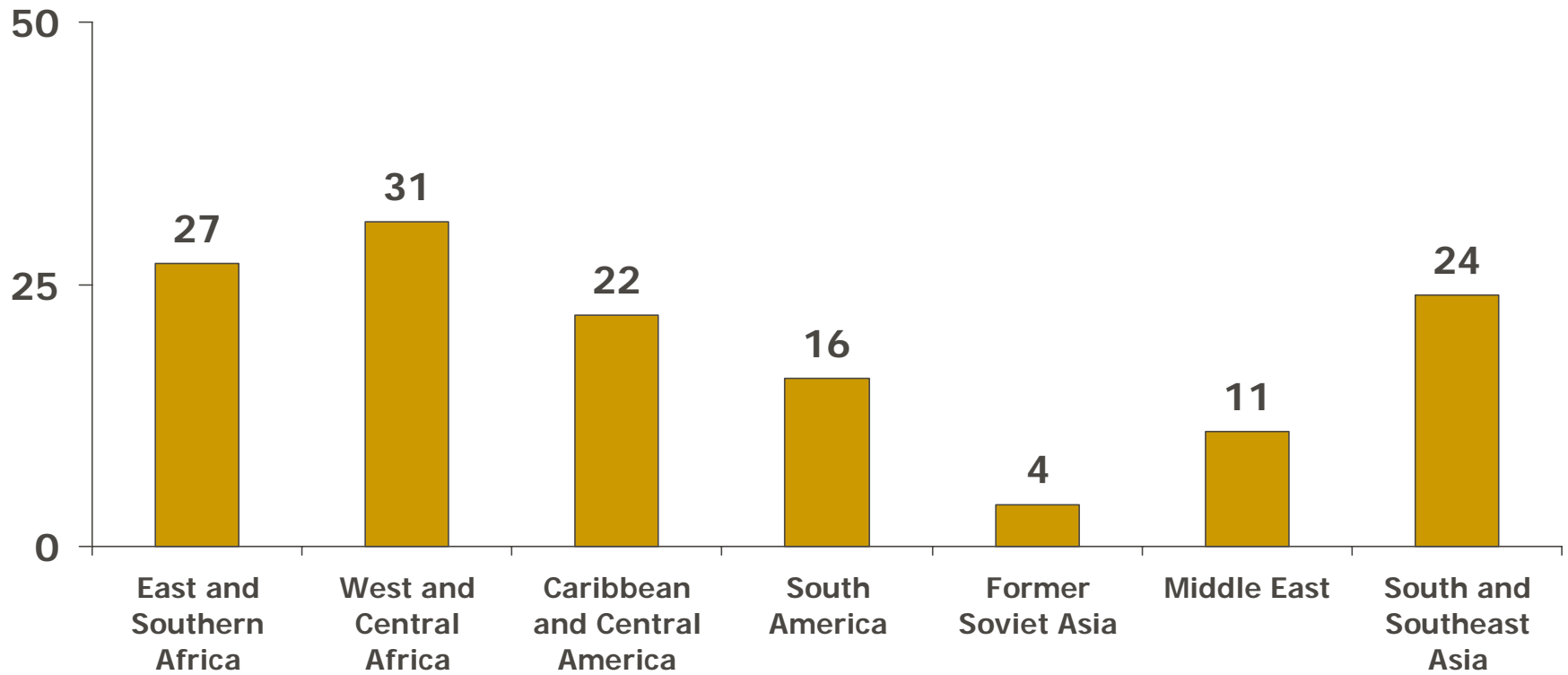
Notes: Late 1990s to early 2000s.

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 59.2



# Young Women Ages 20-24 Who Had a Child Before Age 18, By Region

Percent

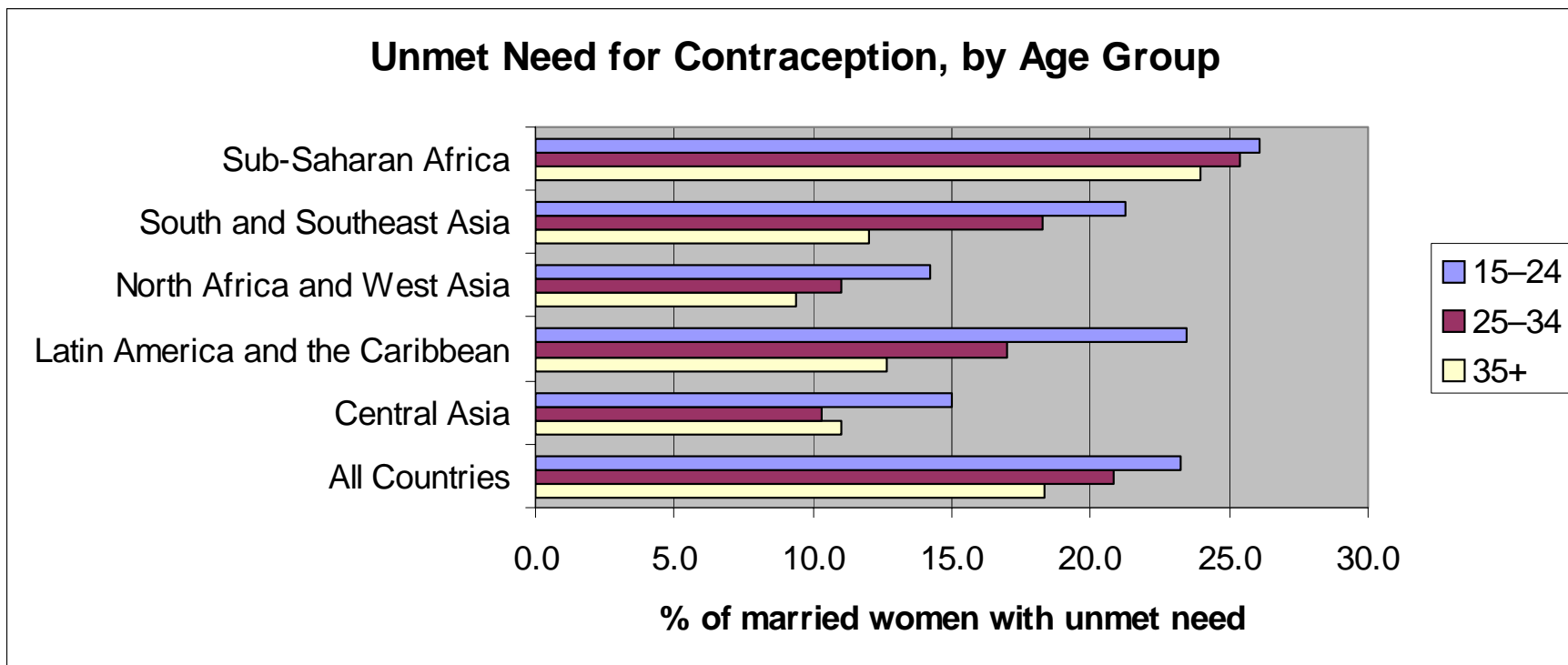


Notes: Late 1990s to early 2000s.

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 59.2



# Unmet Need for Contraception

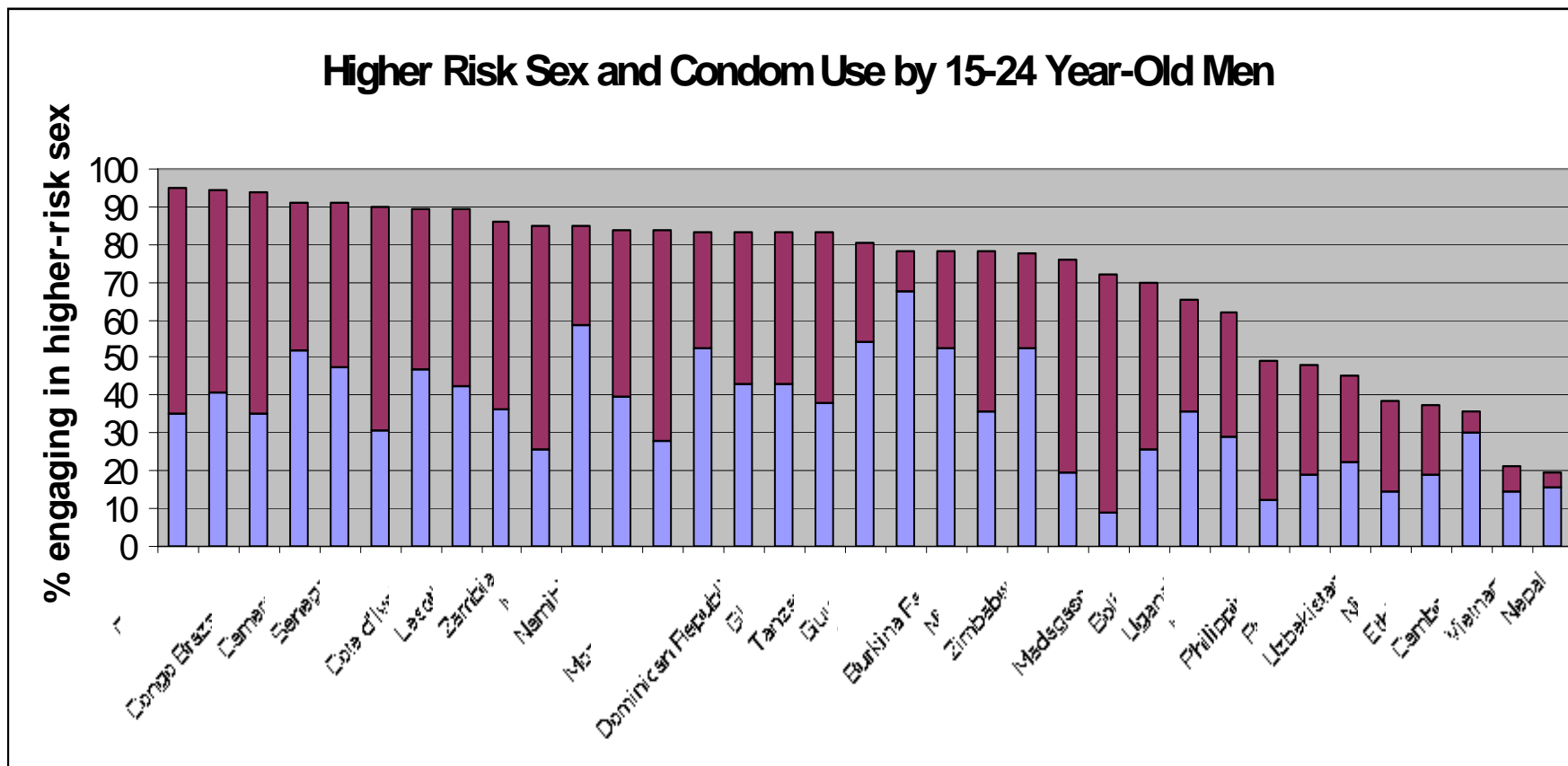


Notes: Late 1990s to mid 2000s.

Source: Sedgh et al 2007



# Higher-Risk Sex and Condom Use



Notes: Early to mid 2000s.

Source: Demographic and Health Surveys



## Influences on Adolescent Health

- *Why do they do what they do? -- It's complicated*
- *It's all related*
- *The good news: it's all related*
- *The bad news: it's all related*



# A Framework for Interventions: What Adolescents Need

- Information and skills
- Access to a broad range of health services
- A supportive social, legal, and regulatory environment



# The Programmatic Response to Date

- Generally, inadequate
- Piecemeal
- Mostly small-scale



# Effective Adolescent Health Interventions

Disease or Condition	Effective Interventions
<b>Mental disorders</b>	--Psychotherapy with a behavioral or cognitive-behavioral orientation.
<b>Youth violence</b>	--Social development programs to reduce antisocial and aggressive behavior --Home visitation by a health professional --Parenting training --Mentoring programs --Family therapy
<b>Road traffic injuries</b>	--Interventions to reduce speeding --Restrictions on youth alcohol consumption and night-time driving --Mandatory helmet laws --Graduated licensing systems --Programs to encourage seat belt use
<b>Nutrition, diet, and physical activity</b>	--Daily iron supplementation --Programs to encourage physical activity among schoolchildren
<b>Tobacco, alcohol, and drug use</b>	--Price increases through taxation --Comprehensive advertising bans --Comprehensive restrictions on smoking in public spaces and private workplaces --Restrictions on minimum age, quantity, price, place, and time of sale of alcohol --Harm reduction programs, such as needle exchange programs
<b>Sexual and reproductive health, including HIV/AIDS</b>	--Curriculum-based sexuality and reproductive health education programs in school; --Clinic-based programs linked with community interventions; --Mass media efforts with message delivered through radio, television, and print media.

# Cost, Cost-effectiveness, and Cost-benefit of Interventions

<b>Investment</b>	<b>Estimated benefit-cost ratio (assuming 3 percent annual discount rate)</b>	<b>Plausible range of estimated benefit-cost ratio</b>
Scholarship program (Colombia)	4.4	2.8–25.6
Adult basic education and literacy program (Colombia)	27.6	8.1–1,764.0
School-based reproductive health program to prevent HIV/AIDS (Honduras)	0.5	0.1–4.6
Iron supplementation administered to secondary schoolchildren (hypothetical low-income country)	45.2	25.8–45.2
Tobacco tax (hypothetical middle-income country)	20.2	7.0–38.6

Source: *Disease Control Priorities in Developing Countries*, second edition, 2006, Table 59.6



## What to do? Programmatic Recommendations

- Take it scale
- Strengthen human resources
- Involve the private sector
- Get the policy framework right



## What to do? Programmatic Recommendations (2)

- Integrate
- Involve the gatekeepers
- Tailor the program
- Hack at the root causes



# What to do? Research Recommendations

- Get the basic data
- Document effectiveness
- Test new interventions
- Enhance understanding of risk and protective factors
- Improve cost, cost-effectiveness, and cost-benefit analysis