

Global Epidemiology of HIV



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KEYWORDS

• HIV • Global health • Epidemiology • Antiretroviral therapy • Risk behavior

KEY POINTS

- HIV prevalence is increasing in nearly every geographic region in the world, mostly because of deaths averted from antiretroviral treatment.
- The main mode of HIV transmission in sub-Saharan Africa is heterosexual contact; mother-to-child transmission rates are decreasing.
- Injection drug use is a major risk factor for HIV acquisition in Eastern Europe, Central Asia, North Africa, and the Middle East.
- Men who have sex with men remain at highest risk for infection in many countries of North America, Western Europe, and Oceania.
- Expanding access to HIV treatment will reduce vertical and horizontal transmission of HIV and decrease HIV morbidity and mortality globally.

INTRODUCTION

The HIV epidemic has shifted over the past 30 years, from the first reported cases in the early 1980s, to an estimated high of 3.7 million new infections in 1997, to declining new infections and AIDS-related mortality throughout the 2000s.¹ In 2012, approximately 9.7 million people in low- and middle-income countries were on antiretroviral drugs (ART).² This expansion of ART coverage has dramatically improved survival among people living with HIV (PLHIV), resulting in an increase in the number of PLHIV

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to an estimated all-time high of 35.3 million in 2012 (**Table 1**).³ Increased access to ART has averted an estimated 5.2 million AIDS-related deaths in low- and middle-income countries from 1995 to 2010, with a 28% reduction in deaths from 2006 to 2012 (**Table 2**).^{1,4} Even as PLHIV live longer, the incidence of new infections continues

| Table 1 | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|
| Estimated adults and children living with HIV, by region | | | | | |
| | 2000 | 2003 | 2006 | 2009 | 2012 |
| Sub-Saharan Africa | | | | | |
| Adults & Children | 20,800,000 | 22,800,000 | 23,500,000 | 24,200,000 | 25,000,000 |
| Adults | 18,800,000 | 20,200,000 | 20,500,000 | 21,100,000 | 22,100,000 |
| Women 15+ y of age | 10,700,000 | 11,600,000 | 11,800,000 | 12,200,000 | 12,900,000 |
| Children | 2,100,000 | 2,600,000 | 3,000,000 | 3,100,000 | 2,900,000 |
| Asia | | | | | |
| Adults & Children | 3,820,000 | 4,380,000 | 4,550,000 | 4,580,000 | 4,780,000 |
| Adults | 3,820,000 | 4,280,000 | 4,340,000 | 4,470,000 | 4,580,000 |
| Women 15+ y of age | 1,187,000 | 1,430,000 | 1,480,000 | 1,620,000 | 1,650,000 |
| Children | 94,300 | 143,600 | 185,300 | 206,900 | 208,200 |
| North Africa and Middle East | | | | | |
| Adults & Children | 130,000 | 170,000 | 200,000 | 230,000 | 260,000 |
| Adults 15+ y of age | 120,000 | 150,000 | 180,000 | 210,000 | 250,000 |
| Women 15+ y of age | 59,000 | 69,000 | 77,000 | 86,000 | 100,000 |
| Children | 9300 | 13,000 | 16,000 | 18,000 | 20,000 |
| Latin America and the Caribbean | | | | | |
| Adults & Children | 1,580,000 | 1,570,000 | 1,560,000 | 1,650,000 | 1,750,000 |
| Adults 15+ y of age | 1,550,000 | 1,550,000 | 1,530,000 | 1,530,000 | 1,630,000 |
| Women 15+ y of age | 500,000 | 520,000 | 520,000 | 530,000 | 560,000 |
| Children | 65,000 | 72,000 | 73,000 | 67,000 | 56,000 |
| North America, Western Europe, and Oceania | | | | | |
| Adults & Children | 1,544,000 | 1,682,000 | 1,866,000 | 2,049,000 | 2,211,000 |
| Adults 15+ y of age | 1,543,000 | 1,679,000 | 1,863,000 | 2,046,000 | 2,208,000 |
| Women 15+ y of age | 323,000 | 366,000 | 408,000 | 448,000 | 488,000 |
| Children | 6600 | 6600 | 6300 | 6200 | 6100 |
| Eastern Europe and Central Asia | | | | | |
| Adults & Children | 760,000 | 1,000,000 | 1,100,000 | 1,200,000 | 1,300,000 |
| Adults 15+ y of age | 750,000 | 990,000 | 1,100,000 | 1,200,000 | 1,300,000 |
| Women 15+ y of age | 300,000 | 430,000 | 460,000 | 440,000 | 430,000 |
| Children | 8700 | 16,000 | 19,000 | 19,000 | 19,000 |
| Global | | | | | |
| Adults & Children | 28,700,000 | 31,700,000 | 32,800,000 | 34,000,000 | 35,300,000 |
| Adults 15+ y of age | 26,500,000 | 28,800,000 | 29,500,000 | 30,500,000 | 32,100,000 |
| Women 15+ y of age | 13,100,000 | 14,400,000 | 14,800,000 | 15,300,000 | 16,100,000 |
| Children | 2,300,000 | 2,900,000 | 3,300,000 | 3,400,000 | 3,300,000 |

From Global report: UNAIDS report on the global AIDS epidemic 2013. Available at: http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2013/gr2013/UNAIDS_Global_Report_2013_en.pdf. Accessed May 9, 2014; with permission.

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