



- There are 35 million people worldwide who live with HIV (prevalence). There are 2.1 million new cases appearing each year. HIV-related-deaths are estimated to be 1.5 million each year.
- **Distribution of the disease:**
  - 70% of currently HIV cases are found in sub-saharan Africa.
  - GCC countries are considered among those countries with low prevalence.
- **Risk factors include:**
  - Unprotected sex.
  - Having other sexually transmitted disease (STD) → this will increase the risk of HIV.
  - IV drug abusers (sharing contaminated needles).
  - Blood transfusions which are done without checking the blood for antibodies against HIV.
  - Health workers (which are exposed to the virus by needle stick injuries).
  - Mother to child transmission: transplacental + during delivery + breastfeeding.

**Diagnoses of HIV Infection among Adults and Adolescents, by Transmission Category, 2011—United States and 6 Dependent Areas**

Transmission Category	No.	%
Male-to-male sexual contact	30,896	61.8
Injection drug use (IDU)	3,836	7.7
Male-to-male sexual contact and IDU	1,423	2.9
Heterosexual contact <sup>a</sup>	13,801	27.6
Other <sup>b</sup>	51	0.1
<b>Total</b>	<b>50,007</b>	<b>100.0</b>

- **Diagnosis:** this is made by the detection of HIV antibodies via ELISA → and then confirming the diagnosis by doing western blot.
- **Treatment:** with antiretroviral therapy (2 drugs belonging to NRTIS + 1 drug belonging to NNRTIS or PIs).
- **Prevention:**
  - Unprotected sex → male and female condom use (85% reduction in the risk).
  - Testing and counseling → done for negative partners and health workers.
  - Voluntary medical male circumcision → proved to reduce the risk of penile cancer and HIV (60% reduction in the risk).
  - Antiretroviral-based prevention:
    - ✓ Protecting negative partners (as prevention).
    - ✓ Pre-exposure prophylaxis for HIV-negative partner (96% reduction in the risk).
    - ✓ Post-exposure prophylaxis for HIV (especially when health workers get exposed, but this must be given within 72 hours to be effective and preventing the infection).
  - Precautions for IV drug abusers: in US, the government supply the needles. We can also educate, test and counsel them.
  - Elimination of mother-child vertical transmission: by treating the infected mother with antiretroviral therapy during pregnancy, cesarean delivery and administering drugs to the newborn for at least 6 months.
- Compliance of HIV patients to treatment is very important especially in Africa (where most of the cases are found).
- Nowadays and with the improvement of treatment, the number of deaths is reduced and the prevalence has increased (since those cases which are not dying are living for a longer period).

**Stage 3 (AIDS) Classifications, Deaths, and Persons Living with HIV Infection Ever Classified as Stage 3 (AIDS) 1985–2010—United States and 6 Dependent Areas**

