

Module 1

HIV epidemiology, transmission and prevention

HIV basic knowledge and stigma reduction in health care settings

Module goals

Module 1: HIV epidemiology, transmission and prevention

Module 1

Participants will be able to:

- offer an insight into the epidemiological situation in the country and worldwide
- present the HIV transmission modes and the broad approaches to prevention
- implement post-exposure prophylaxis for HIV in the health care environment.

Module 2

Participants will be able to:

- describe the natural history of the HIV infection
- expose the main circumstances in which the HIV infection is discovered
- describe some of the clinical manifestations of the HIV/AIDS infection.

Module 3

Participants will be able to:

- name the techniques used for the biological diagnosis of the HIV infection
- argue the need to comply with ethical and confidentiality imperatives in the health care environment
- name the interventions to reduce HIV stigma and discrimination in health care settings.

Module 4

Participants will be able to:

- inform a PLHIV about how care is organized in the country
- inform a PLHIV about the principles of care
- inform parents about the care available for a newborn baby, infant or child infected by HIV
- argue the need for optimal adherence to antiretroviral therapy.

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Epidemiological situation of the HIV/AIDS infection

Situation worldwide

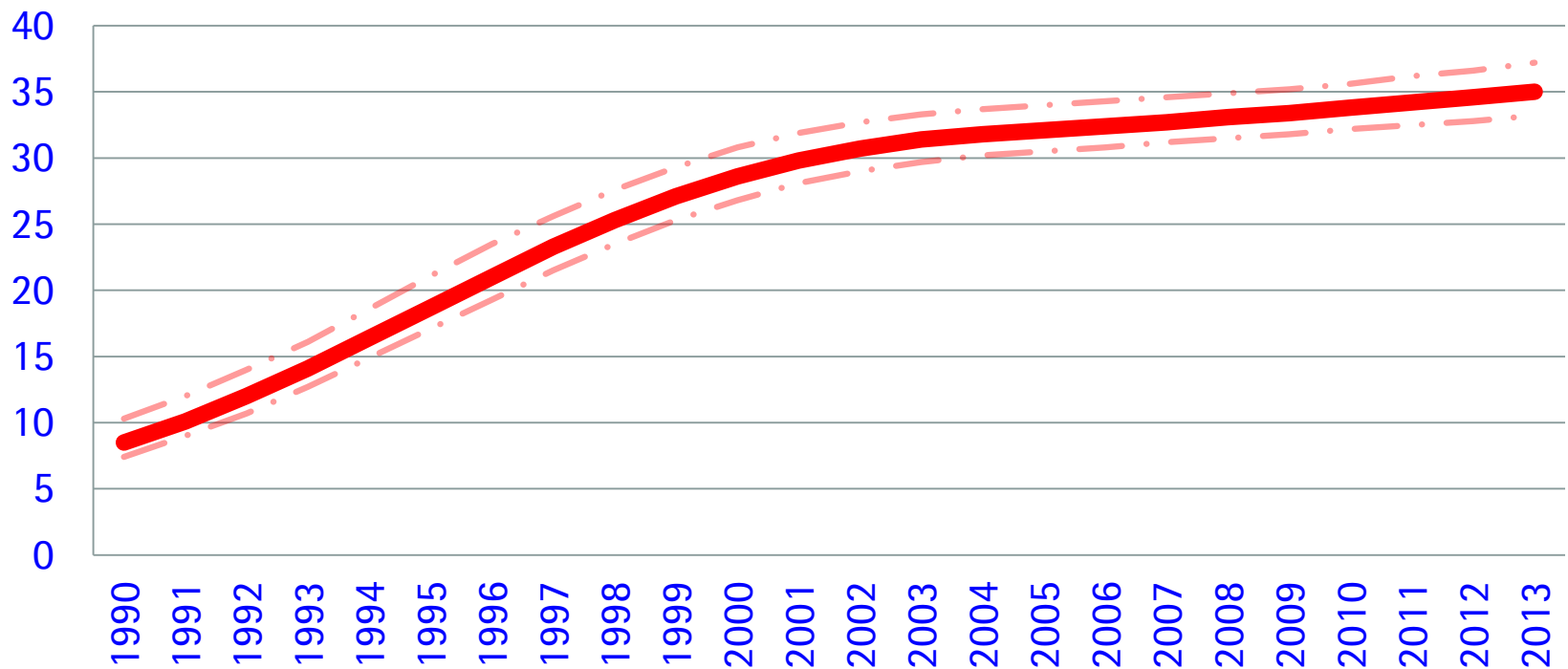
Number of PLHIV worldwide (2013)

Adults	31.8 million
Women	16.0 million
Children < 15 years	3.2 million
TOTAL	35.0 million

WHO UNAIDS estimates 2014

Estimation of PLHIV worldwide (1990–2013)

Number in millions

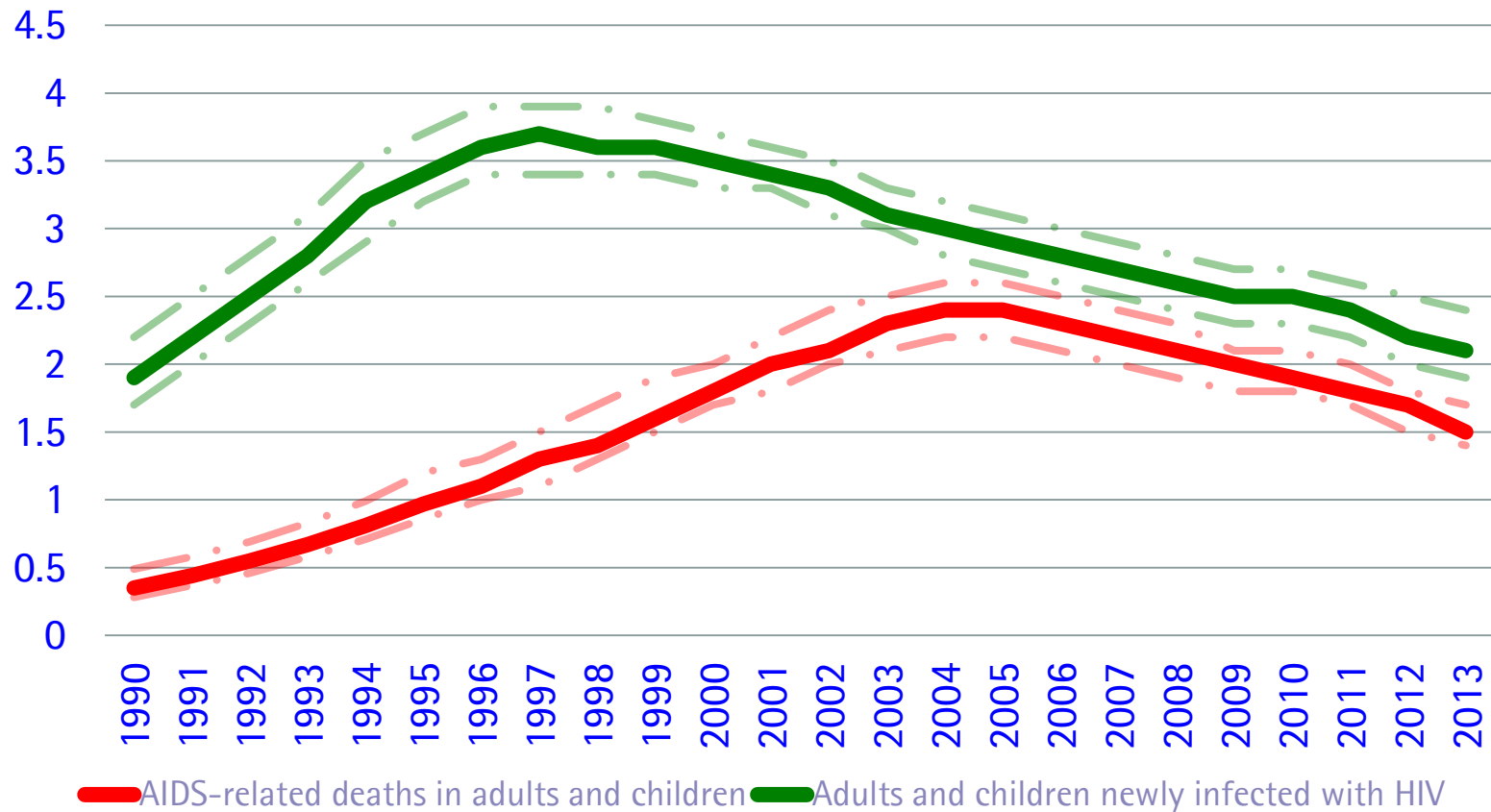


New HIV infections in 2013 worldwide

Adults	1.9 million
Children < 15 years	0.24 million
TOTAL	2.1 million

WHO UNAIDS estimates 2014

New infections and AIDS-related deaths worldwide (1990–2013)

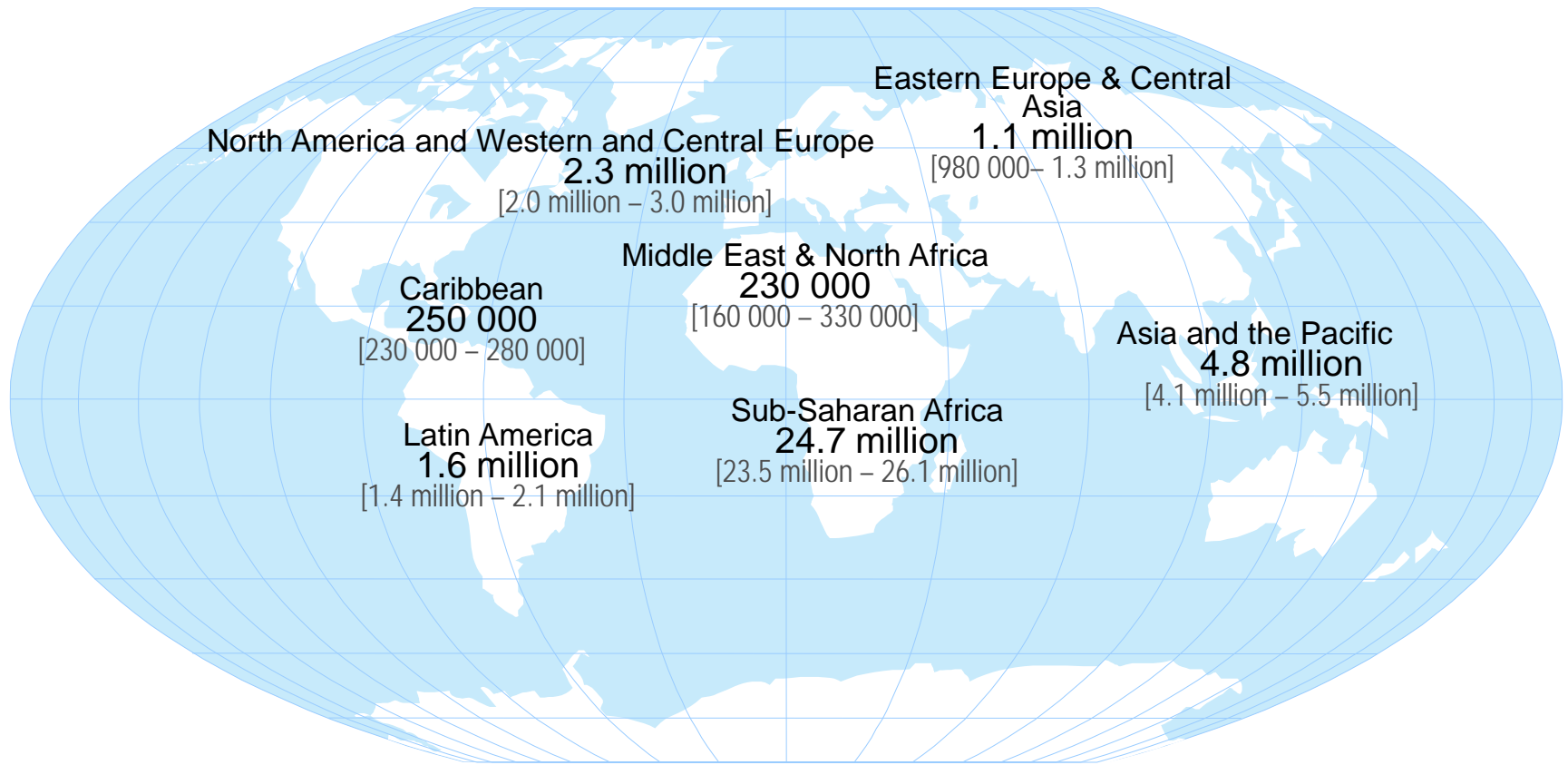


Deaths caused by AIDS in 2013 worldwide

Adults	1.3 million
Children < 15 years	0.19 million
TOTAL	1.5 million

WHO UNAIDS estimates 2014

Geographical distribution of PLHIV at the end of 2013



Total: 35.0 million [33.2 million – 37.2 million]

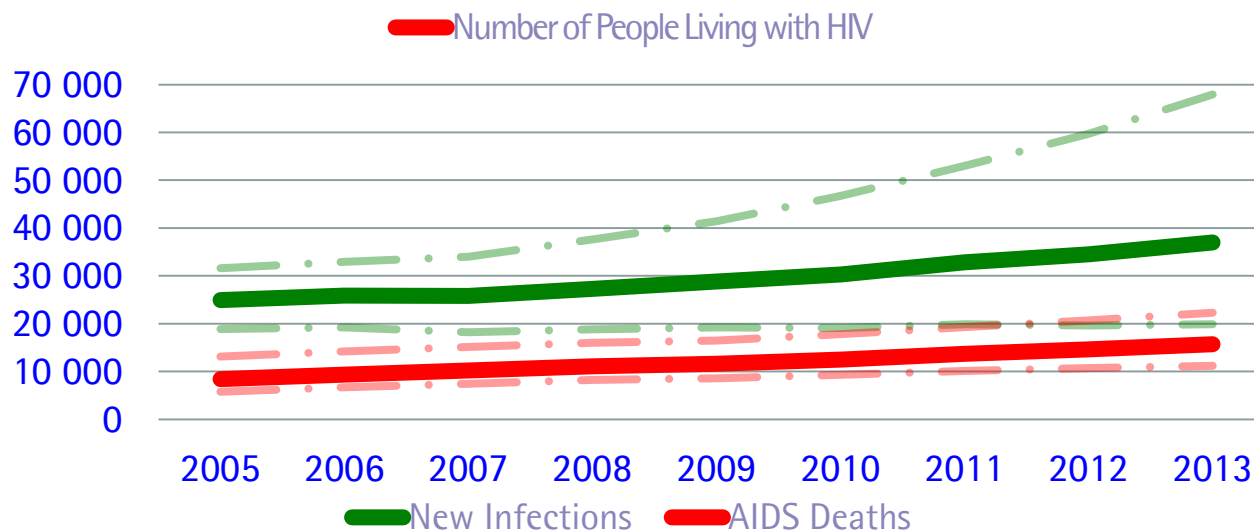
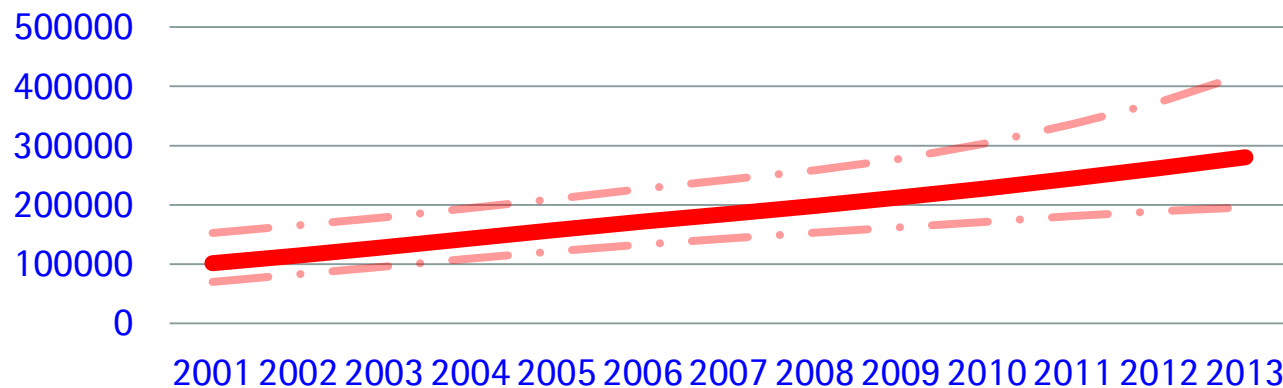
Regional situation

Epidemiological situation by region, 2013

	Adults and children living with HIV	Adults and children newly infected with HIV	Adult prevalence (15–49) [%]	Adults and child deaths due to AIDS
Sub-Saharan Africa	24.7 million	1.5 million	4.7%	1.1 million
Middle East and North Africa	230 000	25 000	0.1%	15 000
Asia and the Pacific	4.8 million	350 000	0.2%	250 000
Latin America	1.6 million	94 000	0.4%	47 000
Caribbean	250 000	12 000	1.0%	11000
Eastern Europe and Central Asia	1.1 million	110 000	0.6%	53 000
Western and Central Europe and North America	2 300 000	88 000	0.3%	27 000
TOTAL	35.0 million	2.1 million	0.8%	1.5 million

Trends in the Eastern Mediterranean Region

Number of people living with HIV

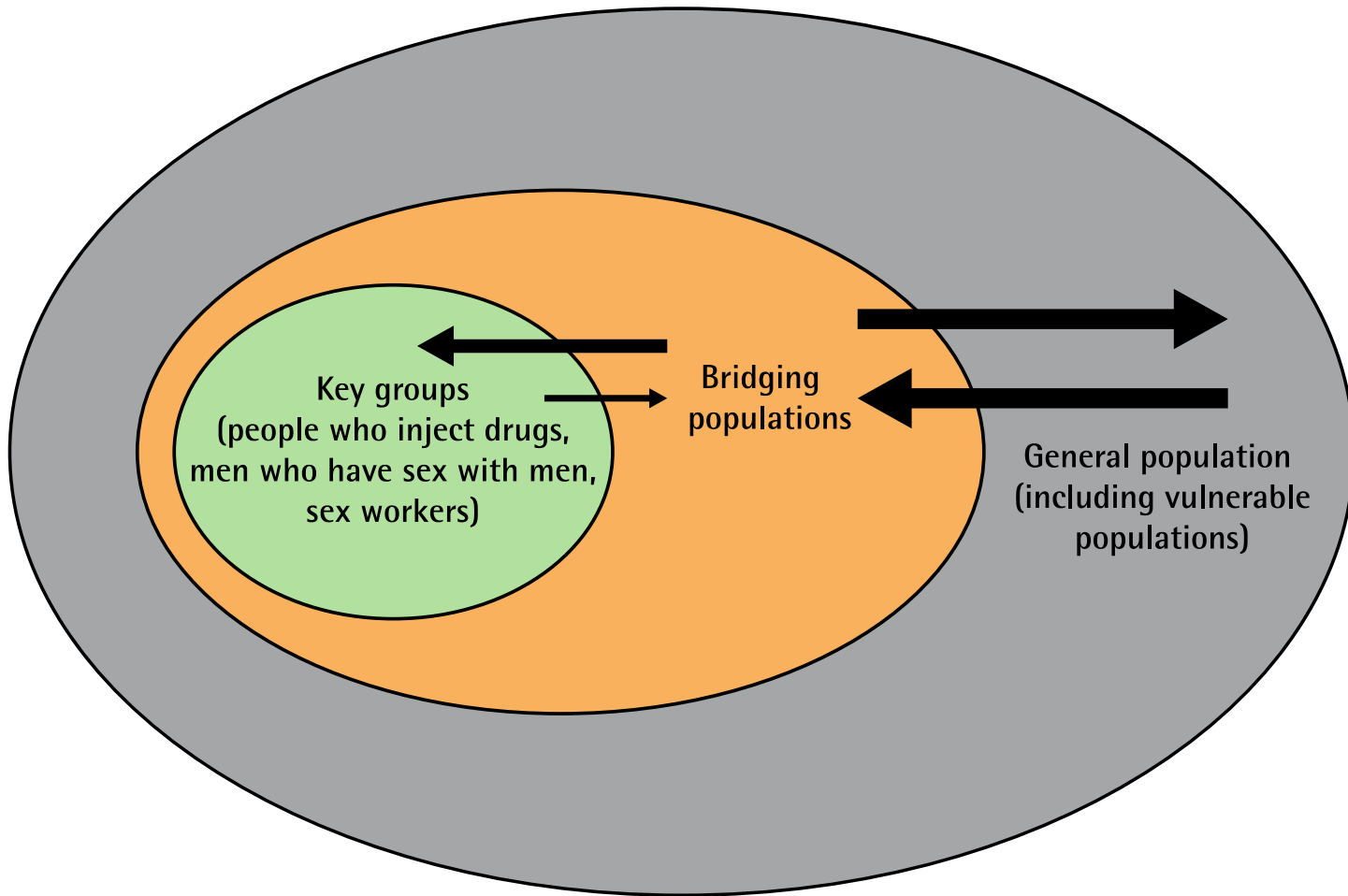


Epidemiology of HIV infection, Eastern Mediterranean Region

- It is estimated that:
 - 37 000 [20 000 – 68 000] people contracted HIV in 2013
 - 250 000 [200 000 – 420 000] people were living with HIV in 2013
- The highest prevalence in the region is in Djibouti
- Unprotected heterosexual intercourse is the highest risk factor for HIV infection
- Exposure to contaminated drug injection equipment:
 - is the main transmission route in Afghanistan, Islamic Republic of Iran, Libya and Tunisia
 - contributes to the epidemic in Morocco and the Syrian Arab Republic.

Epidemiological situation in the country

HIV risk in a population



Conclusion

- While the worldwide epidemiological situation of the HIV epidemic is stabilizing, metrics for the Region are a cause for concern.
- HIV transmission is mostly by the sexual route.
- HIV infection extends to the general population from key groups (sex workers, injecting drug users, men who have sex with men) via bridging populations.

Web sites for updates of the worldwide and regional epidemiological situations of HIV infection

- UNAIDS site

<http://www.unaids.org/en/dataanalysis/knowyourepidemic/>

- WHO site

<http://www.who.int/hiv/data/en/>

Human immunodeficiency virus

Specificities of the virus
and genetic diversity

Origin of the human immunodeficiency virus

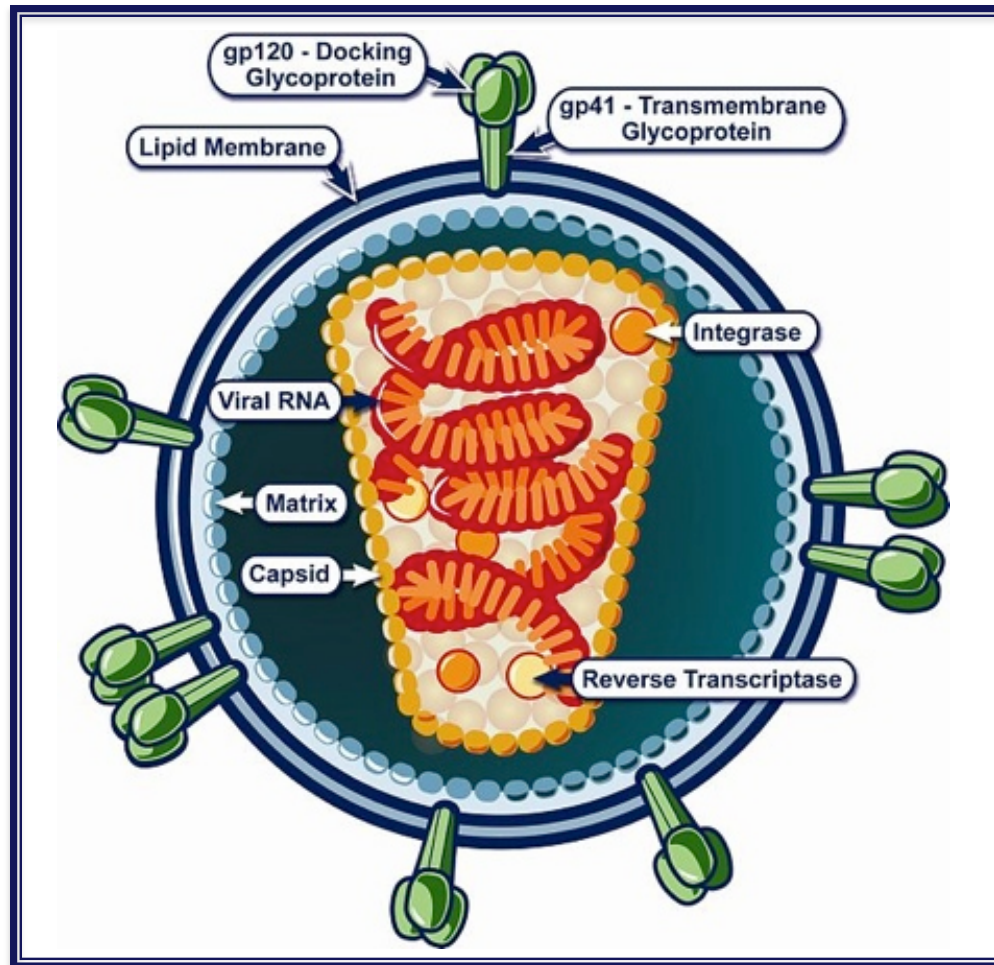


Simian immunodeficiency
virus

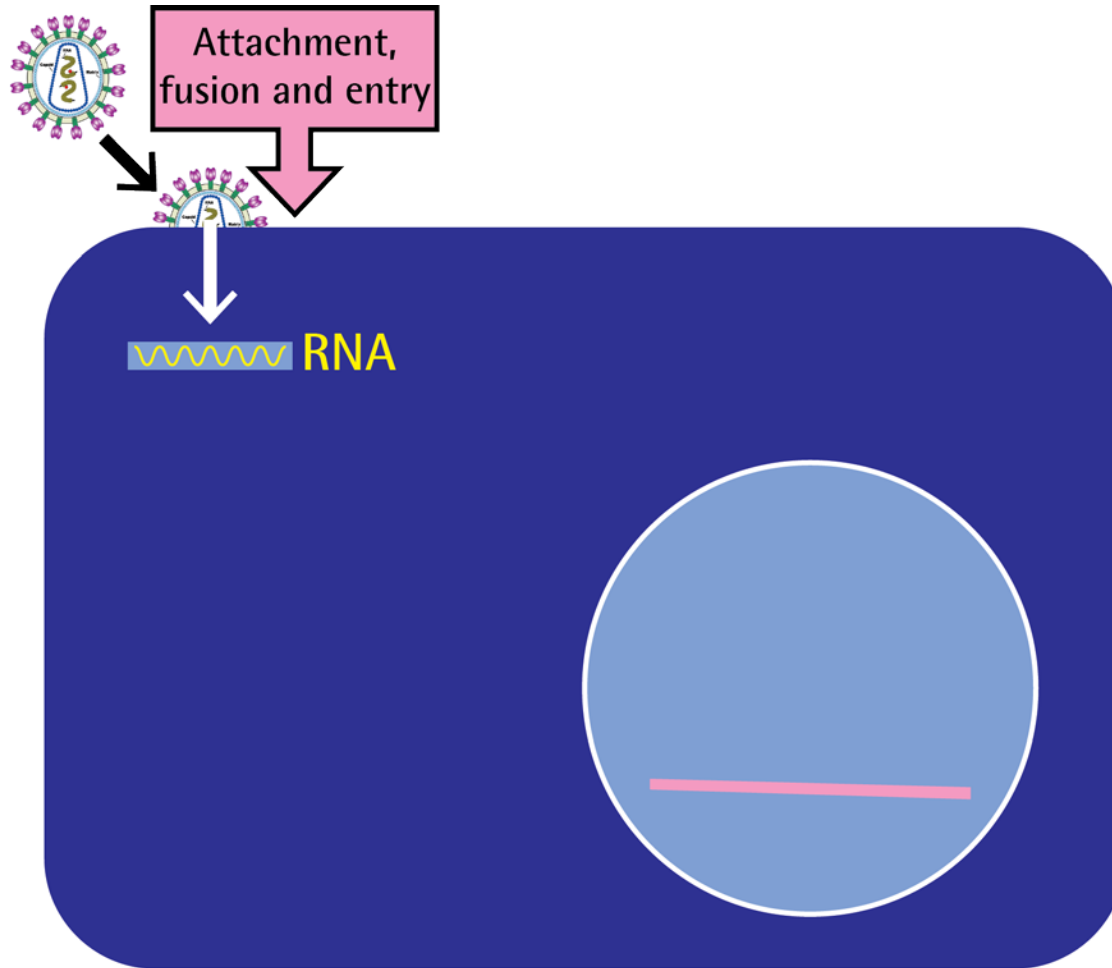


Human immunodeficiency
virus

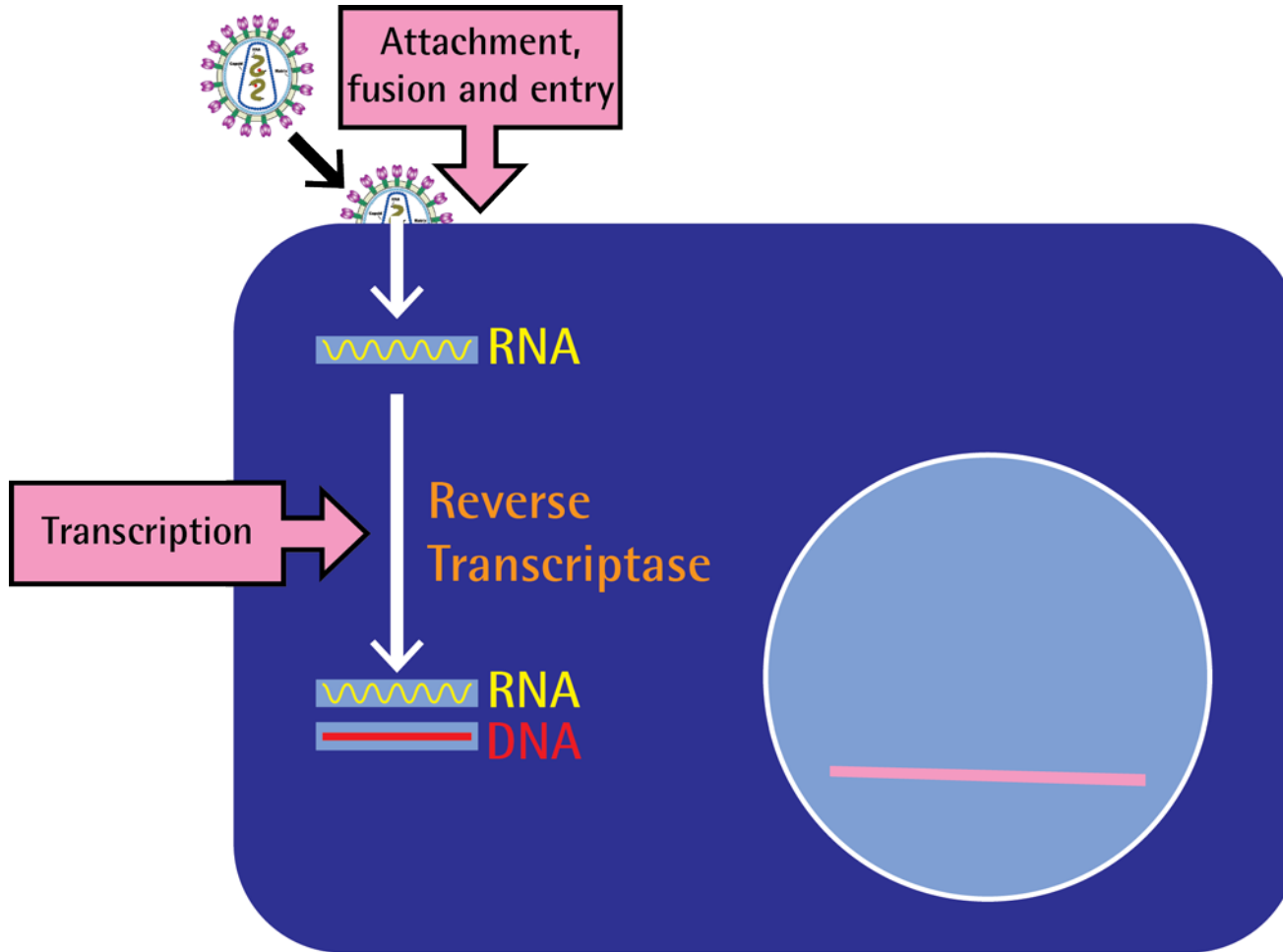
Structure of HIV



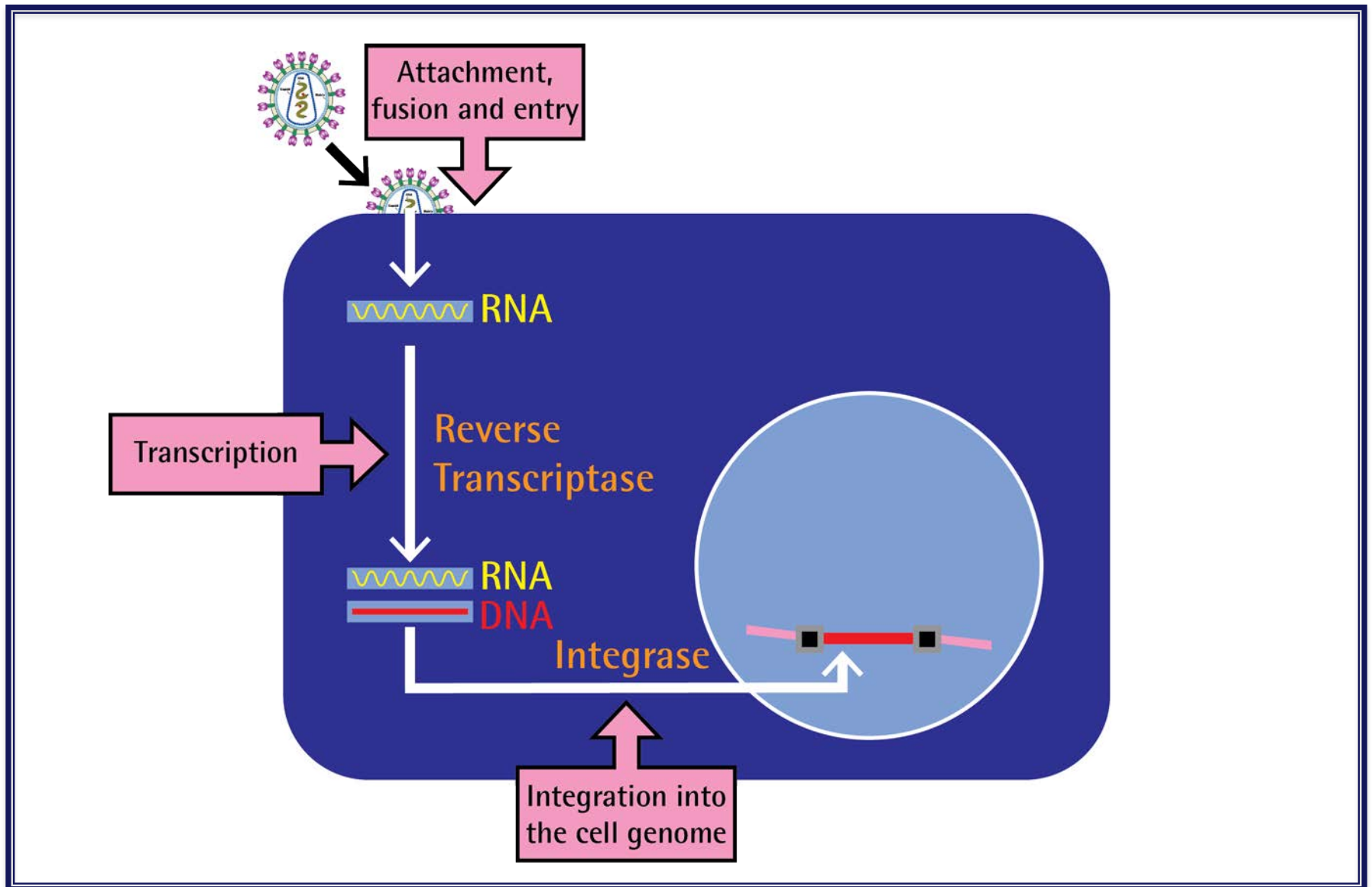
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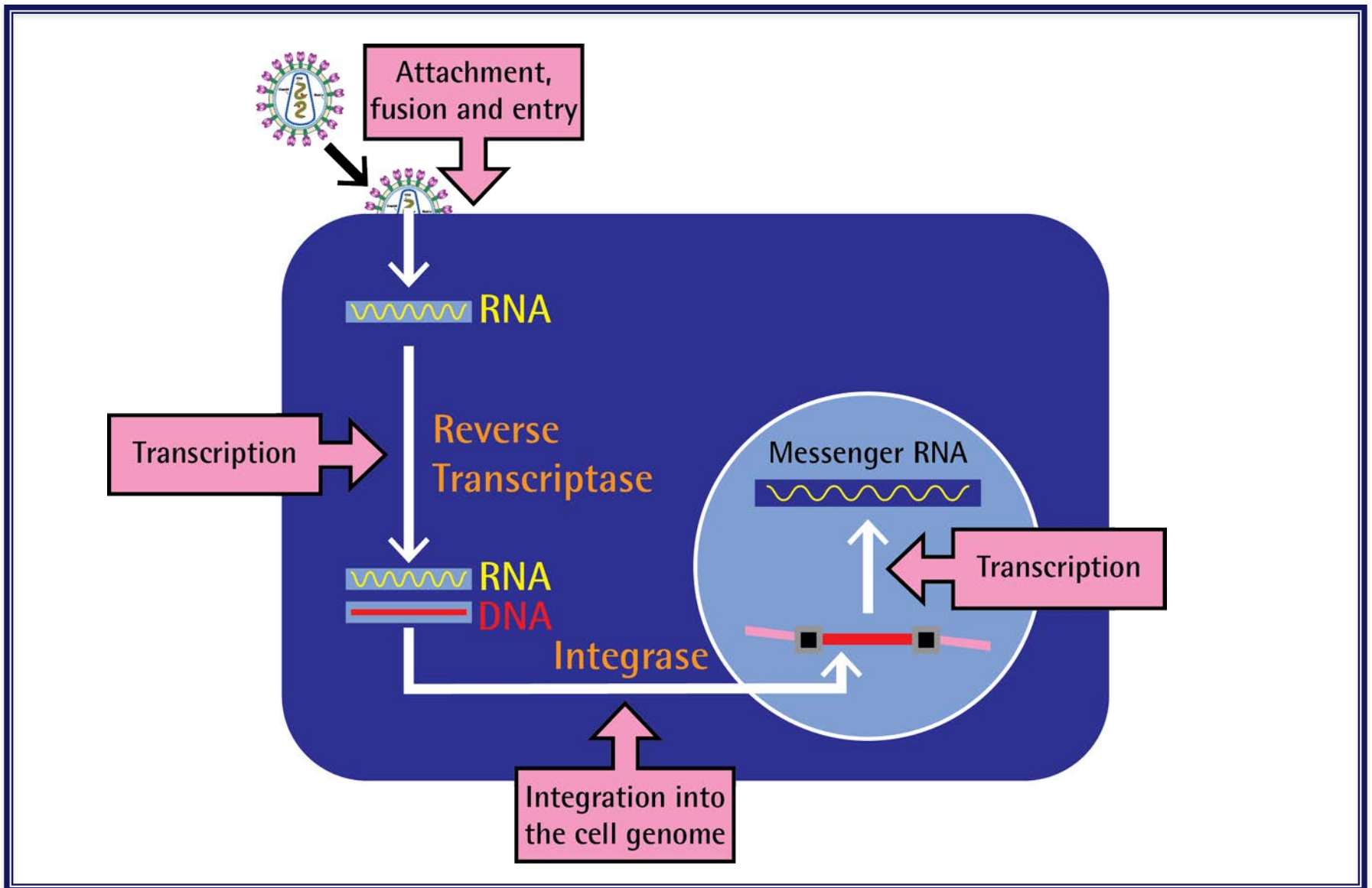
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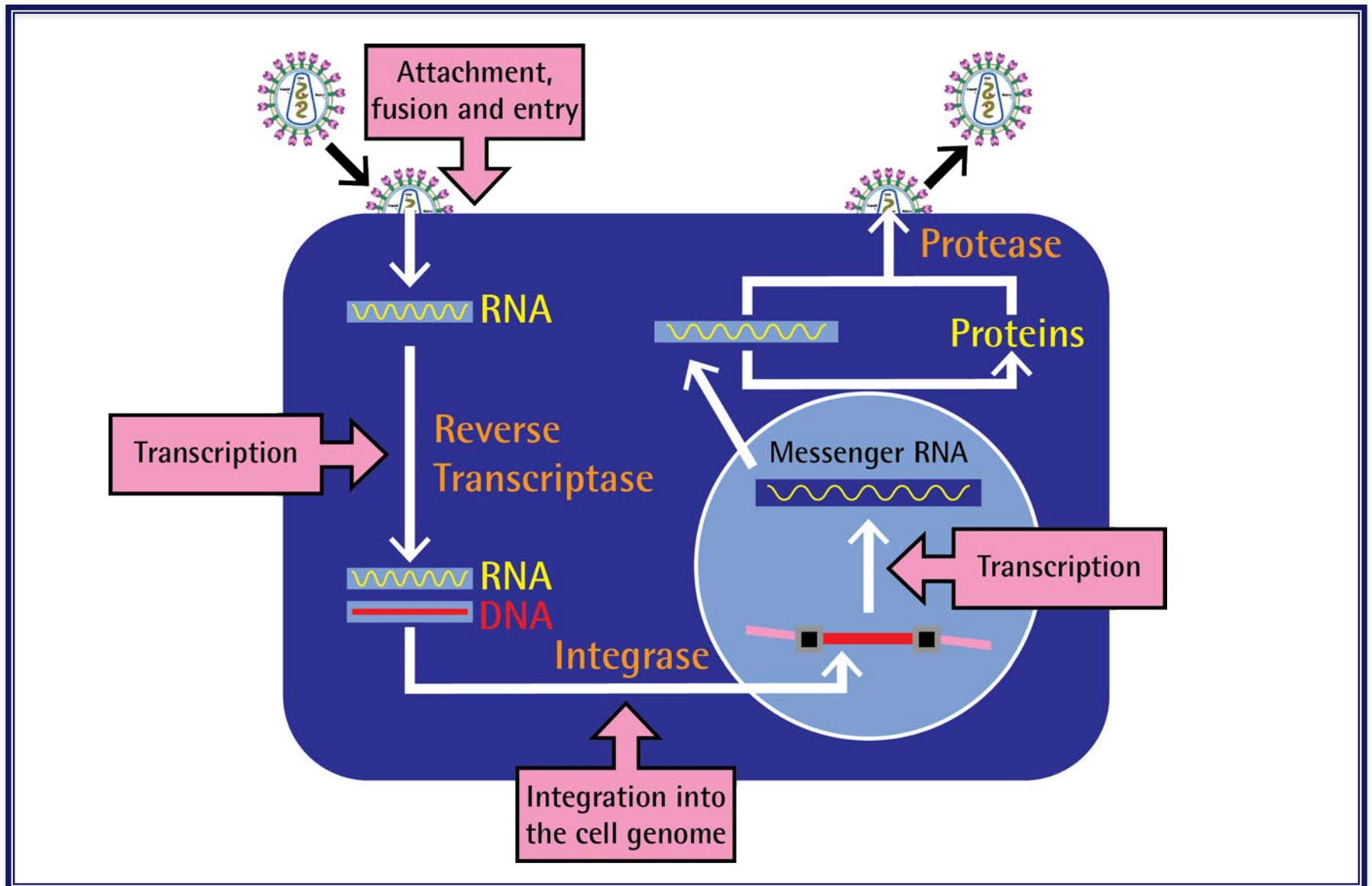
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HIV variability

