

HIV

How it is being prevented

Sal, Emils, Hans, Medb



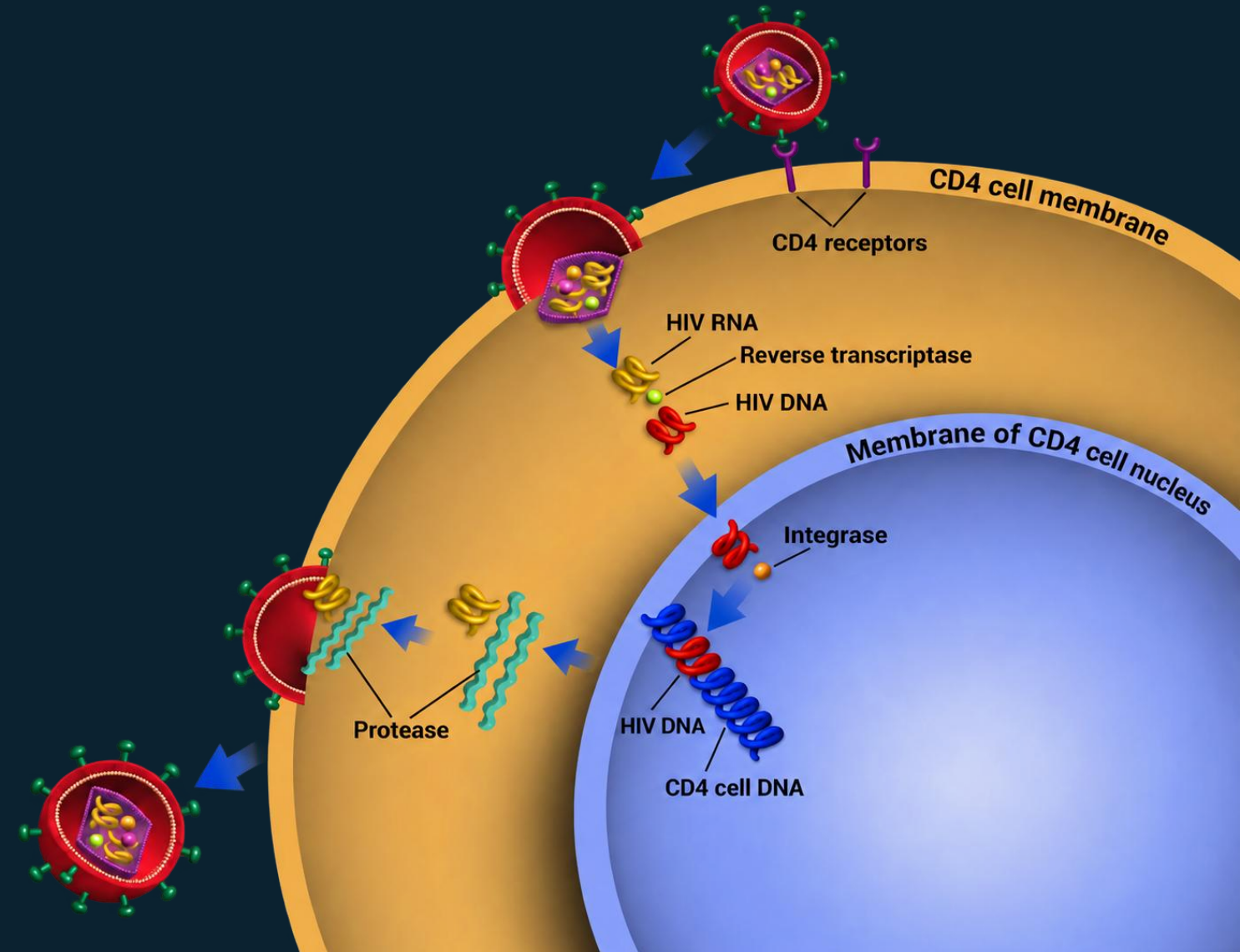
What is HIV?

Human immunodeficiency virus

- Destruction of CD4+ cells
Body cannot fight infections
- If untreated
Acquired immunodeficiency syndrome

Transmitted through

Unprotected sex / Shared needles
Perinatal transmission



Why does prevention matter?

- Protect our immune systems
- Prevent AIDS (leads to death)
- Prevent chronic infections
- Reduce the economic burden
- Negative social and mental health impact



| There is no cure

How HIV is and is not transmitted

HIV is transmitted through

- Sex without protection
- Shared injecting equipment
- Pregnancy, birth or breastfeeding

HIV is not spread by

- Hugging, kissing, shaking hands
- Sharing food, drinks or utensils
- Toilets or swimming pools

1.2 million

People who acquired HIV in 2025

5.0 million

People with HIV did not know their status

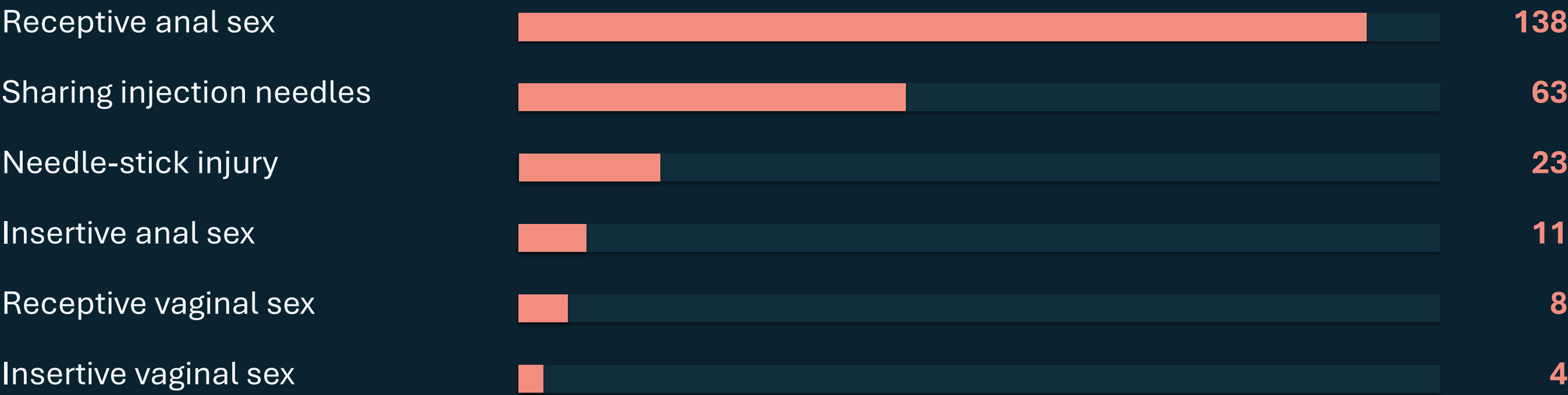
93,000

Children newly infected in 2025

Myths about everyday contact feed stigma, and stigma discourages testing.

Risk per exposure differs hugely by route

Estimated HIV infections per 10,000 exposures to an infected source, by exposure type (CDC)

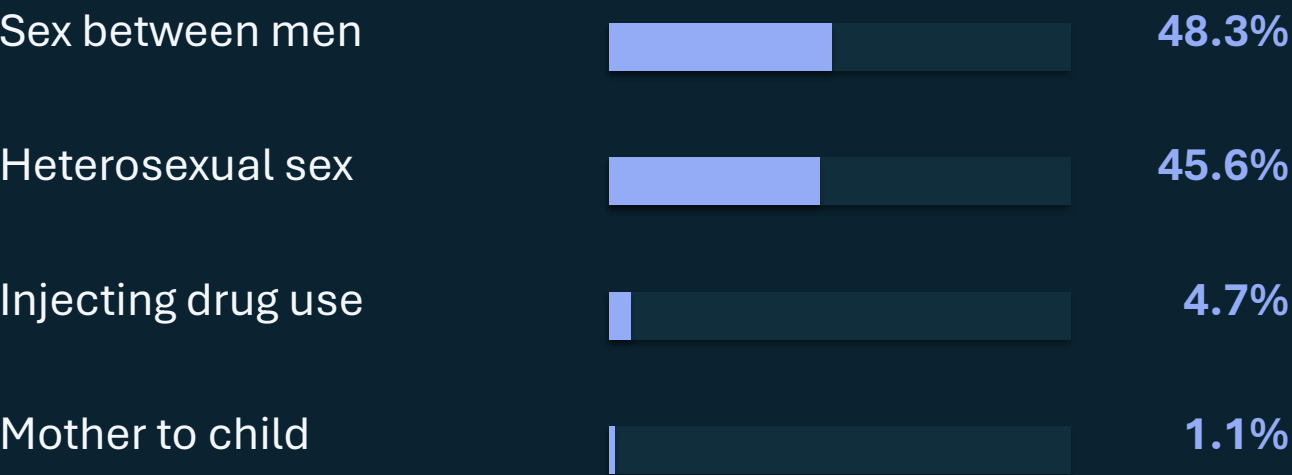


Casual contact, saliva, sweat, tears and insect bites do not transmit HIV.

Routes of transmission: EU/EEA vs Estonia

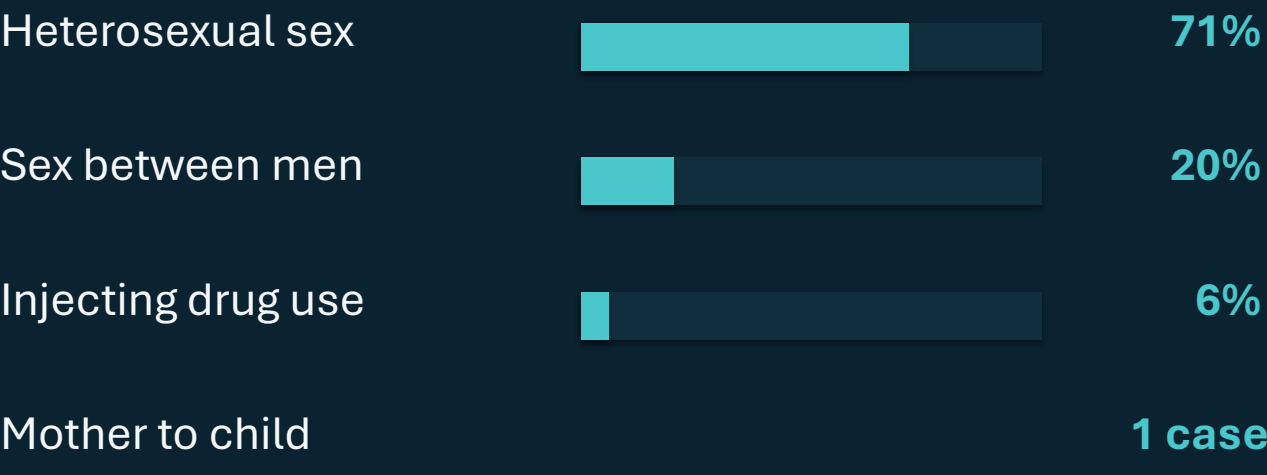
EU/EEA

New diagnoses, 2024
By transmission route (% of cases)



Estonia

2023, cases with known route
About one third of cases (%)



The mix of routes differs by country, so prevention must be targeted to the local epidemic.

Misconceptions persist, even in a high-income country

Swiss adults who wrongly believe HIV can spread through...

National survey, October 2023 / n = 1,015



22%

Knew that effective treatment prevents sexual transmission (U=U)

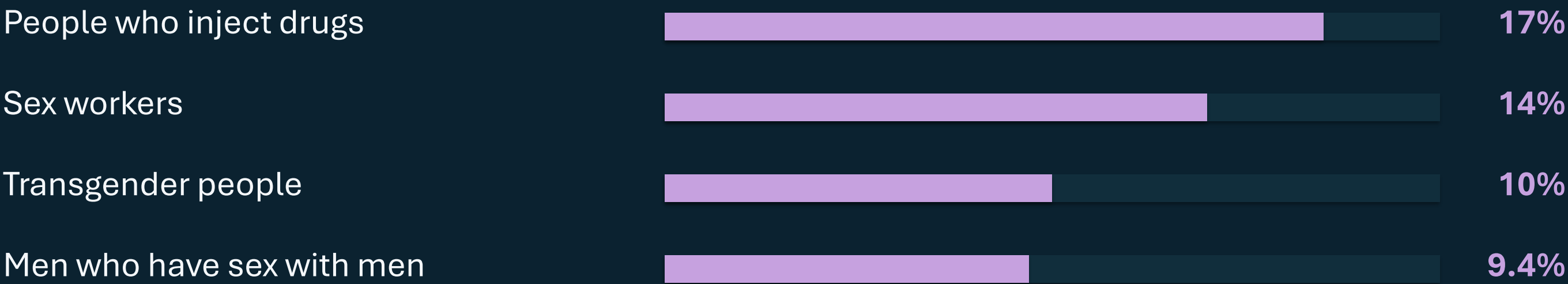
22% said it was not true; 56% did not know.

23% would feel uncomfortable marrying a person with HIV;
13% would feel uncomfortable having sex with them.

Stigma keeps key populations away from care

Avoided health services because of stigma and discrimination

% of group; median across countries (UNAIDS)



Median stigmatising attitudes across 42 countries: 47%.

Preventing exposure: what works

~80%

Fewer infections with consistent condom use (Cochrane review)

2 of 32

Countries met the 2025 opioid therapy target; 13 of 35 met the needle target (UNAIDS 2025)

>90%

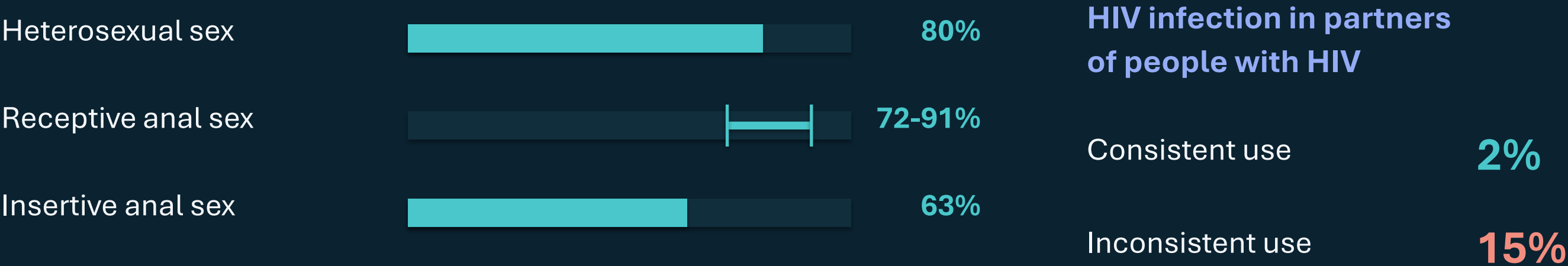
Cut in condom funding in some countries; education is needed (UNAIDS 2026)

4.8 million

Child infections averted by mother-to-child programmes (UNAIDS 2026)

Condoms: effective when used consistently

Reduction in HIV risk with consistent condom use (% , CDC)



CDC MMWR study

Cochrane: about 80% fewer infections with consistent use.

Consistency matters: 3 of 171 consistent users vs 8 of 55 inconsistent users were infected.

Harm reduction: Latvia vs Lithuania vs target

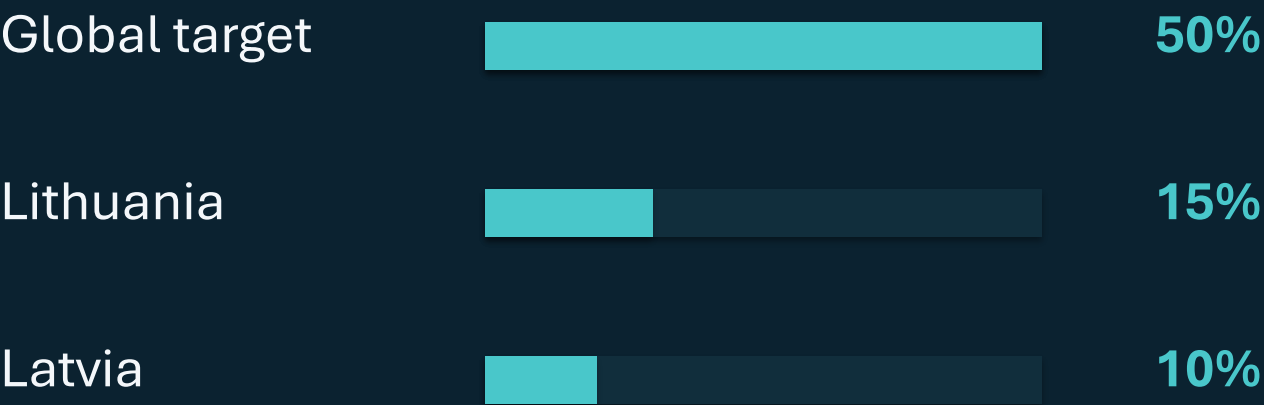
Sterile syringes distributed

Per person who injects drugs per year
EUDA, 2021 or latest



Opioid agonist treatment

Coverage (% of people at risk)



Estonia is not in the EUDA table.

Both Baltic neighbours fall well short of WHO/UNAIDS/UNODC targets.

Mother-to-child transmission is largely preventable

Children newly infected with HIV worldwide

2010

300,000



2025

93,000

A 69% fall since 2010, thanks to testing and treating pregnant women.

In the EU/EEA, 196 cases were mother-to-child in 2024 (1.1% of diagnoses).
Estonia reported 1 case in 2023.

PrEP and PEP

PrEP

Before exposure

Planned prevention for a person without HIV.
Medical assessment and regular HIV testing.

Ideally within 24 h

PEP

After exposure

Emergency prevention after possible exposure.
Start immediately; do not wait for symptoms.

No later than 72 h

28-day course

Neither replaces protection against other sexually transmitted infections.

Medicines and targets

Use	Medicines	Target
Oral PrEP	Tenofovir disoproxil fumarate + emtricitabine (TDF/FTC)	Reverse transcriptase Viral RNA to DNA
PEP example	TDF/FTC + dolutegravir	Adds an integrase block Viral DNA into host DNA

| An example regimen, not the only option; selection is clinical.

How the medicines work

Viral RNA

Inside a CD4 T cell



Viral DNA

A DNA copy of HIV



Integration

Viral DNA within host DNA

Reverse transcriptase

Tenofovir + emtricitabine

Mimic DNA building blocks.
Terminate the growing viral DNA chain.

Integrase

Dolutegravir

Blocks insertion of viral DNA
into the cell's genome.

Two viral enzymes. Two points where replication can be interrupted.

Testing and treatment as prevention

Test

HIV may be present without symptoms.
Early diagnosis enables early treatment.

U=U

Undetectable = Untransmittable

Estonia

Free anonymous testing at HIV centres,
including without health insurance.

Maintained undetectable viral load
on effective treatment means
no sexual transmission.

| Treatment protects immunity and prevents sexual transmission. It is not a cure.

Why treatment continues

Replication suppressed

Less new virus.
Less damage to CD4 T cells.
Immune recovery.

Reservoir remains

Integrated HIV DNA persists
in some long-lived cells.
These cells can reactivate.



Active replication



Suppressed



Latent reservoir

Stopping treatment can allow viral rebound. Undetectable does not mean cured.

Why prevention does not reach everyone

- | | | |
|-----------|---------------------------------|--|
| 01 | Fear of judgement | People avoid testing or hide their risks to avoid being labelled. |
| 02 | Confidentiality concerns | Worry that results will reach family, employer or community keeps people away. |
| 03 | Cost | Fees for tests, PrEP or care put services out of reach. |
| 04 | Inconvenient services | Distant clinics, short opening hours and long waits make testing hard to fit in. |
| 05 | Discrimination | Bad experiences with providers lead to late diagnosis and people leaving care. |

What health promotion can do

- | | | |
|-----------|-----------------------------------|---|
| 01 | Confidential testing | Free or anonymous options, with clear privacy rules that people know about. |
| 02 | Affordable prevention | Low-cost or free condoms, testing and access to PrEP. |
| 03 | Outreach | Bring testing to communities and places where people already are. |
| 04 | Non-judgemental healthcare | Train providers to offer respectful care without stigma. |
| 05 | Clear information | Plain-language facts about PrEP, PEP and U=U. |

Clear information: PrEP, PEP and U=U

PrEP

Pre-exposure prophylaxis

Medication taken by HIV-negative people before possible exposure to greatly reduce the risk of getting HIV.

PEP

Post-exposure prophylaxis

Emergency medication started as soon as possible, within 72 hours, after a possible exposure and taken for 28 days.

U=U

Undetectable = Untransmittable

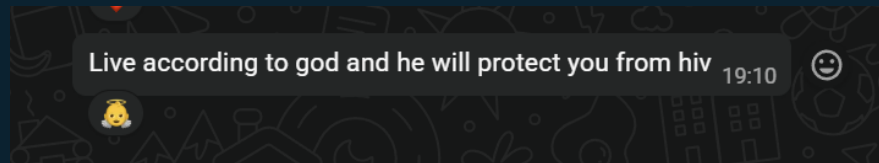
A person with HIV on effective treatment, with an undetectable viral load, cannot pass HIV on sexually.

Where to get tested in Estonia

Anonymous testing sites	National network of free, anonymous HIV and hepatitis B/C counselling and testing for anyone aged 16+. Rapid tests available.
Estonian Network of People Living with HIV	Rävala 8, Tallinn. Free HIV, hepatitis and STI testing, Mon–Fri 10:00–18:00.
AHF Estonia	Free, confidential community testing points in Tallinn, plus services in Narva. Optional syphilis and hepatitis B/C screening.
Sexual Health Clinic	Mardi 3, Tallinn. Free HIV test for all, by appointment, tel. 666 5123, Mon–Fri 8:00–16:00.

Hours and services may have changed, so check before visiting.

Conclusion



Thank you



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