ODUMUNC 2019 Issue Brief for the
World Health Organization

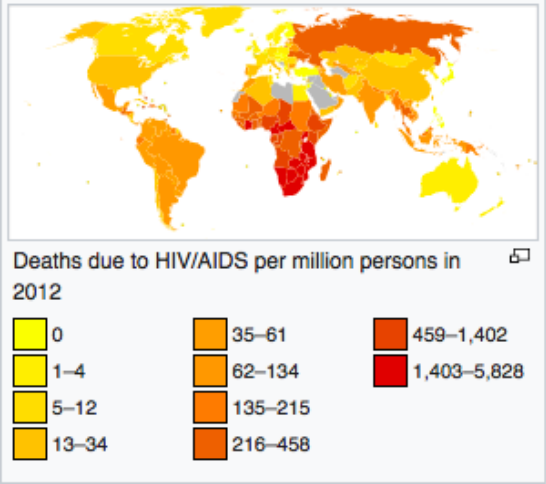
OLD DOMINION UNIVERSITY

Prevention of Perinatal Transmission of HIV/AIDS

ODU Model United Nations Society

Introduction: A global crisis forty years on

Roughly forty years since the recognition of the global AIDS epidemic, the disease remains a major problem of global health. Despite considerable progress taming its worst effects, the disease still is a dreaded threat. In 2017 it killed an estimated 940,000 people world-wide. Because it typically strikes young adults at the peak of their abilities, it is not just a human tragedy, but a major drain on global economic development.



Human immunodeficiency virus (HIV) and the disease it causes, acquired immune deficiency syndrome (AIDS) is an insidious epidemic, in part because it starts with minor symptoms, often compared to the flu. But left untreated, it typically kills its victims within eleven years.

HIV is transmitted by sexual contact, significant exposure to infected body fluids or tissues, and from mother to child during pregnancy, delivery, or breastfeeding. There is no cure or vaccine. Antiretroviral treatment can slow the course of the disease and may lead to a near-normal life expectancy.

Since the beginning of the epidemic in 1979-81, more than 70 million people have been infected with the HIV virus. About 35 million people have died of AIDS. According to the World Health Organization (WHO), in 2017 globally 36.9 million people were living with HIV. An estimated 0.8 percent of all adults aged 15–49 years worldwide are living with HIV.

The burden of the epidemic varies considerably between countries and regions.[1] Africa remains most severely affected, with nearly 1 in every 25 adults (4.1 percent) living with HIV and accounting for nearly two-thirds of the people living with HIV worldwide. But the epidemic continues everywhere.[2]

While there is no cure, enormous progress has been made taming the threat. Today AIDS is generally treatable. Its spread can be nearly stopped with proper preventive measures. Globally, 21.7 million people are living with HIV with the help of antiretroviral drug therapy as of 2017. Another 15.2 million go untreated.[3]

More liberal social attitudes—including willingness to talk about the disease and social acceptance of the infected-- facilitate recognition of the problem, increase willingness to seek treatment and prevention in more and more countries (see the *Annex* at the ended of this issue brief for country data on infected pregnant

[1] 'Global Health Observatory (GHO) data', *World Health Organization*, October 2018, https://www.who.int/gho/hiv/en/

[2] 'Ibid.

[3] *UNAIDS*, n.d., http://www.unaids.org/en

women). With the continuing challenge of new infections in mind, in 2015 the United Nations (UN) and WHO established the goal of eradicating HIV/AIDS by the year 2030.

Larger proportions of the total number of AIDS victims are being treated with antiretroviral drugs, which—when taken daily—permit inflected people to live relatively normal lives. But the disease continues to spread, especially in countries afflicted by poverty, ignorance and illegal drug use.

More tragically, there were an estimated 1.8 million new cases of people infected with HIV in 2017.[4] Fortunately, people with HIV live for years without developing AIDS, through advances in diagnosis and treatment. Thanks to advances in treatment, a person with HIV can expect to live a near-normal life span.

Even so, there are countries where HIV/AIDS infection rates are increasing, such as China, Eastern Europe and the Russian Federation.[5] In those countries, heterosexual transmission and perinatal transmission is replacing contaminated needles as the most common source of the epidemic.

A recent report by UNAIDS, the UN agency dedicated to combatting the virus, shows that 75 percent of all people living with HIV know their HIV status. The report also shows the need for stronger efforts to reach the 9.4 million people living with HIV who are not aware that they are living with the virus, and the estimated 15.2 million people (19 million in some estimates) living with HIV who are not receiving effective treatment.[6]

Major problems remain, including not only the surprisingly large number of infected people who remain untreated, but especially pregnant mothers who are undiagnosed and untreated, and are likely to infect their unborn children.[7]

According to Michel Sidibé, Executive Director of UNAIDS. 'If people don't know their HIV status,' said Sidibé , 'people who are living with HIV can't start treatment, and people who are HIV-negative can't get the knowledge and skills they need to keep that way," he stated. 'If people living with HIV don't know their viral load, they won't be sure that the treatment is effective, protecting their health and stopping HIV transmission.'[8]

[4] Ibid.
[5] Jon Cohen, 'Russia's HIV/AIDS epidemic is getting worse, not better', *Science*, 11 June 2018, https://www.sciencemag.org/news/2018/06/russia-s-hivaids-epidemic-getting-worse-not-better ; 'HIV/Aids: China reports 14% surge in new cases', BBC News, 29 September 2018, https://www.bbc.com/news/world-asia-china-45692551
[6] *Knowledge is Power*, Geneva: UNAIDS, November 2018, http://www.unaids.org/en/resources/documents/2018/knowledge-is-power-report
[7] 'World response to AIDS epidemic at a 'critical juncture', *UN News Centre*, 30 November 2018, https://news.un.org/en/story/2018/11/1027151
[8] Ibid.

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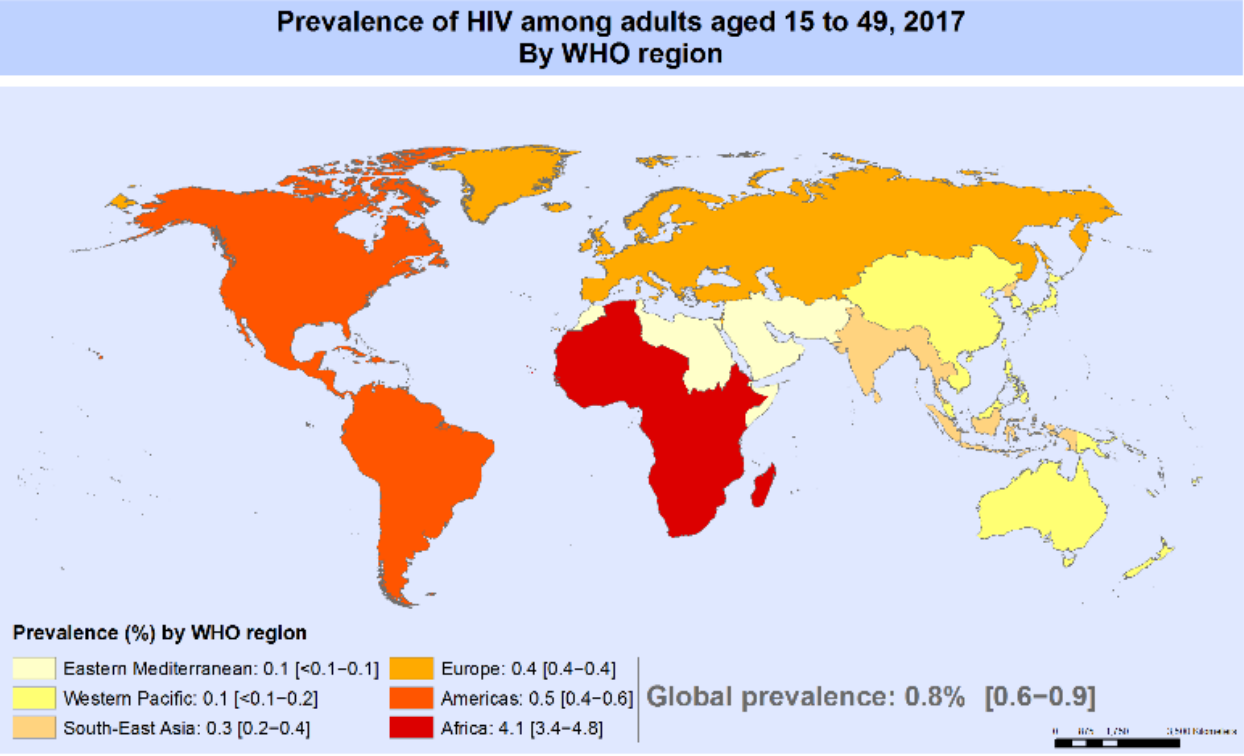


The special tragedy of perinatal transmission

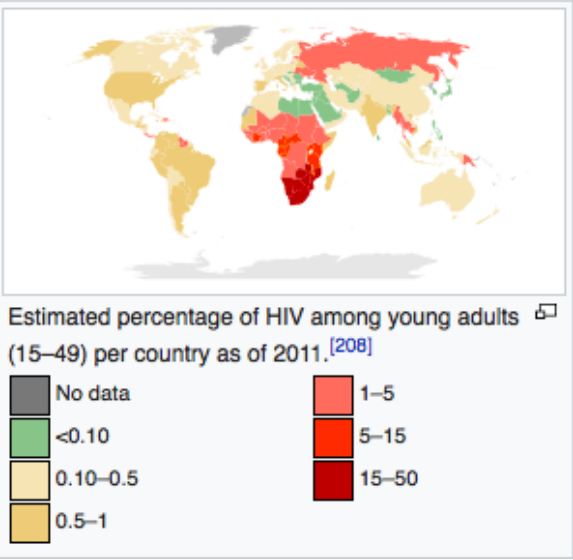
Especially tragic is the infection of children before they are born. The transmission of HIV from a HIV-positive mother to her child during pregnancy, labor or delivery, delivery or breastfeeding is called mother-to-child or *perinatal transmission*.

The HIV virus causes the human immune system to deteriorate, preventing the body from defending itself against further infections. Normally the human immune system can completely clear many viruses attacking the body. That is not the case with a patient infected with HIV. Once the infection develops into AIDS (*Acquired Immunodeficiency Syndrome*), the body is unable to control other, secondary infections. Even a normal minor disease become potentially lethal.

In the past infection with HIV was a death sentence. Inevitably it would lead to AIDS, followed by death from any of several secondary infections, such as pneumonia or any of several kinds of otherwise rare cancers.

A mother infected with HIV can pass the infection to her child, both before birth and after. In the absence of any medical intervention, transmission rates from an HIV infected mother to her child range from 15 to 45 percent. This

rate can be reduced to below 5 percent, sometimes below 2 percent, with effective interventions during the periods of pregnancy, labor, delivery and breastfeeding. These interventions primarily involve antiretroviral treatment for the mother and a short course of antiretroviral drugs for the baby. They also include measures to prevent HIV acquisition in the pregnant woman and appropriate breastfeeding practices.[9]



Since the 1990s, implementation of HIV testing and preventive interventions has resulted in a more than 90 percent decrease in the number of children perinatally infected with HIV in countries in most of Europe, East Asia, Latin America and North America.[10] But perinatal HIV transmission still accounts for the majority of childhood HIV infections.

Elements of the problem include:

- Mother-to-child transmission of HIV, the spread of HIV from a woman with HIV to her child during pregnancy, childbirth (also called labor and delivery), or breastfeeding (through breast milk).
- Pregnant women with HIV receive *antiretroviral drugs* during pregnancy and childbirth to prevent mother-to-child transmission. In some situations, a woman with HIV may have a scheduled cesarean delivery to reduce the possibility of mother-to-child transmission of HIV during delivery.
- Babies born to women with HIV can be treated antiretroviral drugs for 4 to 6 weeks after birth. Antiretroviral drugs reduce the risk of infection from any HIV that may have entered a baby's body.
- Because HIV can be transmitted in breast milk, women with HIV living should not breastfeed their babies. Baby formula is a safe and healthy alternative to breast milk, although it may not be affordable or available.
- If a woman takes HIV antiretroviral drugs during pregnancy and her baby receives HIV antiretroviral drugs for 4 to 6 weeks after birth, the risk of transmitting HIV can be lowered to 5 to 2 percent.[11]

Aggressive measures can have impressive effects. The World Health Organization notes that most recently, Armenia and the Republic of Moldova eliminated mother-to-child

[9] 'Mother-to-child transmission of HIV', *World Health Organization*, October 2018, https://www.who.int/hiv/topics/mtct/en/

[10] 'Prevention of Perinatal HIV Transmission', *National Institute of Allergy and Infectious Diseases*, 22 March 2017, https://www.niaid.nih.gov/diseases-conditions/prevention-perinatal-transmission

[11] 'Preventing Mother-to-Child Transmission of HIV', *U.S. National Library of Medicine*, 24 May 2018, https://aidsinfo.nih.gov/understanding-hiv-aids/fact-sheets/20/50/preventing-mother-to-child-transmission-of-hiv

transmission of HIV. 'This is a tremendous achievement – a clear signal that the world is on the way to an AIDS-free generation,' said WHO Director-General Dr Margaret Chan.[12] One of the biggest challenges before the WHO today is how to make specific achievements like those universal?

The key to success is investment in public health measures, including aggressive measures for diagnosis and widespread availability of low-cost or free treatment. Integration of diagnosis and treatment underpins health sector strategies on HIV, sexually transmitted infections, and viral hepatitis, and is fundamental to the attainment of universal health coverage and the realization of the Sustainable Development Goals.

The Role of the United Nations system

UN organizations, especially the World Health Organization, play a major role leading international action on perinatal HIV/AIDS prevention, control and treatment. The UN works primarily through UNAIDS, which is leading the global effort to end AIDS as a public health threat by 2030 as part of the *Sustainable Development Goals* (SDGs).

The UNAIDS Secretariat has offices in 70 countries, with 70 percent of its staff based in the field, and has a budget of USD 140 million for 2018. The budget for the Joint Programme for 2018 is USD 242 million.

Most of this is provided by UN Member States acting as donor governments. The majority of their funding is granted through specified donations, going directly from donor government to UNAIDS. Its offices usually are collocated within the offices of the country missions of the UN Development Program (UNDP).[13]

The Agenda for the WHO

There are three major roles for the WHO in perinatal HIV/AIDS prevention, control and treatment.

The major day-to-day role of the World Health Organization is public health minoring to identify where HIV/AIDS problems are most sever, helping to ensure that the aid of the international community and UNAIDS especially go where they are most needed.

The WHO monitors the effects of international interventions to ensure that resources are used effectively.

The WHO also evaluates program effectiveness generally to advise donors and host governments on what works best, which public health and individual treatment models should be expanded, and which deserve less attention and investment than they got previously.

The biggest challenge today is declining funding for those worst affected. Member States are less willing to invest, partially because the sense of crisis has passed, and due to a general decline in support for foreign humanitarian assistance. For example, international donor support for HIV

[12] 'Thailand, Belarus and Armenia eliminate mother-to-child transmission of HIV', *World Health Organization*, 24 June 2016, https://www.who.int/hiv/mediacentre/news/emtct-validation-2016/en/

[13] 'Saving lives, leaving no one behind', *UNAIDS*, n.d., http://www.unaids.org/en/whoweare/about

responses in low- and middle-income countries fell from USD 8.6 billion in 2014 to USD 7.5 billion in 2015, alone. Ironically, funding in richer countries is going up, from USD 9.4 billion in 2014 to USD 11.3 billion by 2017, a 20 percent increase.[14]

This problem led the UN Secretary-General António Guterres conclude that 'New HIV infections are not falling rapidly enough,'. He spelled out that some regions are lagging, and financial resources are insufficient. Stigma and discrimination continue to hold people back, especially key populations – including men who have sex with men, sex workers, transgenders, intravenous drug users, prisoners and migrants – and young women and adolescent girls. 'At this critical juncture, we need to take the right turn now,' concluded the Secretary-General.[15]

With almost two million new infections every year, HIV/AIDS continues to be a massive problem. Without additional funding, there is no hope of eradicating the disease, which will continue to devastate the lives of young adults and children. Choices must be made, and priorities selected, nevertheless.

Another major factor worsening HIV/AIDS problems generally is armed violence. Where there is war, HIV/AIDS gets worse, especially for those least able to help themselves; mothers and their unborn children. The trend has recently been seen in Central African Republic, South Sudan and Ukraine. The problem also is serious for refugee communities like the Muslim Rohingya forced out of their homes in majority-Buddhist Myanmar.[16]

Country and Bloc Positions

African Union – In 2017 the Member States of the African Union agreed on a new framework program to combat HIV/AIDS, including training two million community workers to disseminate information, help vulnerable groups (especially women and children) avoid inflection, help diagnosis symptoms and guide the inflected to treatment.[17]

Implementing such programs is hard. Some African counties have resources to invest in the threat, such as Algeria, Angola, Nigeria and South Africa. Others are dependent on funding from donor governments. They will turn to the WHO for assistance. But like the other member States of the Non-Aligned Movement, their principle goal is making sure that financial help does not come at the expense of other health priorities. More donor assistance, with more control for recipient governments, is their highest goal.

Arab League – Muslim countries are not immune to the AIDS crisis, but conservative social attitudes and leadership make the problem hard to discuss. Data on HIV/AIDS in the Arab world tends to be highly incomplete, usually referring most to inflections about non-Muslim minorities, especially foreigners. Some sources think infections are increasing the region.[18] The

[14] Andrew Green, 'As AIDS money shrinks, who loses?' *IRIN*, 21 July 2016, https://www.irinnews.org/analysis/2016/07/21/aids-money-shrinks-who-loses

[15] 'World response to AIDS epidemic at a 'critical juncture', *UN News Centre*, 30 November 2018, https://news.un.org/en/story/2018/11/1027151

[16] Lily Hyde, 'How both sides in Ukraine's war are losing the HIV battle', *IRIN*, 15 February 2018, https://www.irinnews.org/feature/2018/02/15/how-both-sides-ukraine-s-war-are-losing-hiv-battle

[17] 'African Union endorses major new initiatives to end AIDS', *UNAIDS,* 3 July 2017, http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2017/july/20170704_africanunion

[18] Benjamin Plackett, 'AIDS Deaths Soar in the Arab Region', *Al-Fanar Media*, 10 April 2018,

Arab League tends to approach the issue in a round-about fashion, supporting action elsewhere, in countries with well-known problems, and asking for part of those efforts to be directed at their own needs. Whether they are willing to help finance those programs is less clear.

China – China has been frank about rising incidents of HIV infection among its people. China is increasingly willing to offer personnel and financial support to help countries affected by international calamities, including health problems. Its funding for global public health is growing as well.[19]

European Union (EU) – The European Union has been especially active in its response to the HIV/AIDS epidemic, making support for international action a major theme in its development assistance. European health ministries and non-governmental organizations (NGOs) are especially active. Whether the 28 Member States of the European Union are willing to invest more funds in these initiatives, however, is not clear.

Non-Aligned Movement (NAM) – The 120 Member States of the UN's largest voting bloc strong support measures to reduce epidemic disease and help their people. With colonial past in mind, many also are highly suspicious of problems they regard as imports from their former colonial masters. AIDS has often been described among the NAM as a hoax or an import from Europe or the United States designed to undermine their future development. They recognize the need for more assistance, but insist it arrive under their own sovereign control, free of strings of the kind foreign donor governments and NGOs usually expect.

Russia – Russia supports WHO activity, but is unwilling to donate more funding. It has offered technical personnel and resources, if funding can be found.

The United States –Under the leadership of President Donald Trump, the United States is trying to reduce its reliance and support for international organizations. The United States supports programs to help afflicted countries, but increasingly demands that countries fund those projects themselves or through cuts to other forms of international assistance. Instead, much of the leadership from the United States has shifted to private non-governmental organizations (NGOs), like the Bill and Melinda Gates Foundation, created by the Microsoft tycoon.

Proposals for Action

As representatives of sovereign Member States of the WHO delegations are free to develop tier own proposals for further action. A few prominent possibilities include:

Specify goals for prevention and treatment of perinatal HIV infections. Create global standards and resources for all countries to devote to the problem, shifting global priorities to ensure that perinatal issues, especially provision of antiretroviral drugs, get equal or greater attention and resources. Some Member States will resent such an approach, since it reduces their sovereign freedom over public health programs, a major part of national budgets.

Fund expansion of community health workers to help people avoid infection, adopt

https://www.al-fanarmedia.org/2018/04/aids-deaths-soar-in-the-arab-region/

[19] BBC. 'HIV/Aids: China reports 14% surge in new cases', *BBC News*, 29 September 2018, https://www.bbc.com/news/world-asia-china-45692551

safe sexual practices, seek treatments and necessary drugs. The African Union has called for 2 million community health workers to fight HIV/AIDS in African alone. Global expansion of such goals will be expensive and require new funding.

Whether community health workers will be able to distribute antiretroviral drugs will have to be established. Foreign donors may or may not be willing to offer additional support. If they do, they are likely to insist on control over how the money is spent, partially to ensure goals are met, partially to prevent corruption.

Fund research on new diagnostic technologies and treatments. While the need for innovative approaches is well recognized, there are several controversies. The WHO has only limited funding of its own, so new work would require commitments from Member States. Advocates of existing approaches like antiretroviral drugs—which have a proven track record—will seek to protect those programs and insulated them from funding cuts that might be necessary to fund novel approaches.

Target specific countries for special attention, including countries worst afflicted by new surges of inflections. Targeting makes sense, but has to navigate the problems of any departure from universalism in international organizations, since it benefits some countries more than others. Donor governments and NGOs are likely to support targeting, but the Non-Aligned Movement may find this approach divisive.

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Annex: Proportion of pregnant women with AIDS receiving antiretrovirals [20]

	Number of pregnant women with HIV **who receive antiretrovirals** for preventing mother-to-child transmission	Estimated number of pregnant women with HIV **needing antiretrovirals** for preventing mother-to-child transmission	Est. percent of pregnant women with HIV **who receive antiretrovirals** for preventing mother-to-child transmission
Country	2,017	2,017	2,017
Afghanistan	No data	No data	No data
Albania	No data	No data	No data
Algeria	260	<500	56
Angola	7,100	21 000	34
Argentina	1,500	1,700	90
Armenia	No data	No data	No data
Australia	No data	No data	No data
Austria	No data	No data	No data
Azerbaijan	70	<100	87
Bahamas	No data	No data	No data
Bahrain	No data	No data	No data
Bangladesh	30	<200	17
Barbados	No data	No data	No data
Belarus	270	<500	92
Belgium	No data	No data	No data
Belize	40	<100	41
Benin	3,900	4,700	83
Bhutan	No data	No data	No data
Bolivia (Plurinational State of)	340	<500	90
Bosnia and Herzegovina	No data	No data	No data
Botswana	11 000	12 000	90
Brazil	7,700	9,000	85

[20] 'Prevention of mother-to-child transmission: Estimates by country', *World Health Organization*, 13 July 2018, http://apps.who.int/gho/data/node.main.627?lang=en

Brunei Darussalam	No data	No data	No data
Bulgaria	No data	No data	No data
Burkina Faso	5,300	5700	92
Burundi	4,200	4,900	85
Cabo Verde	90	<100	>95
Cambodia	760	790	>95
Cameroon	23 100	30 000	77
Canada	No data	No data	No data
Central African Republic	2,900	5,100	56
Chad	5,100	7,500	68
Chile	270	<500	>95
China	No data	No data	No data
Colombia	850	1,300	66
Comoros	No data	No data	No data
Congo	700	6,300	11
Costa Rica	50	<100	71
Cote d'Ivoire	17 300	25 000	70
Croatia	No data	No data	No data
Cuba	150	<200	>95
Cyprus	No data	No data	No data
Czechia	No data	No data	No data
Democratic People's Republic of Korea	No data	No data	No data
Democratic Republic of the Congo	13 900	23 000	59
Denmark	No data	No data	No data
Djibouti	50	<500	21
Dominican Republic	810	840	>95
Ecuador	430	680	63
Egypt	30	<500	9
El Salvador	130	<500	35
Equatorial Guinea	1,500	2,400	64
Eritrea	220	560	39
Estonia	No data	No data	No data
Eswatini (Swaziland)	9,200	10 000	90
Ethiopia	15 200	26 000	59
Fiji	No data	No data	No data
Finland	No data	No data	No data
France	No data	No data	No data

Gabon	1,800	2,900	64
Gambia	730	1,100	65
Georgia	50	<100	85
Germany	No data	No data	No data
Ghana	12 000	18 000	66
Greece	No data	No data	No data
Guatemala	240	1,100	21
Guinea	2,400	6,300	38
Guinea-Bissau	1,400	2,200	65
Guyana	130	<500	64
Haiti	4,500	6,400	70
Honduras	180	<500	53
Hungary	No data	No data	No data
Iceland	No data	No data	No data
India	13 700	23 000	60
Indonesia	1,500	12 000	13
Iran (Islamic Republic of)	260	<500	55
Ireland	No data	No data	No data
Israel	No data	No data	No data
Italy	No data	No data	No data
Jamaica	410	<500	>95
Japan	No data	No data	No data
Jordan	No data	No data	No data
Kazakhstan	390	<500	82
Kenya	53 100	69 000	76
Kuwait	No data	No data	No data
Kyrgyzstan	120	<200	75
Lao People's Democratic Republic	80	<500	24
Latvia	No data	No data	No data
Lebanon	No data	No data	No data
Lesotho	11 100	12 000	90
Liberia	1,600	1,800	86
Lithuania	No data	No data	No data
Luxembourg	No data	No data	No data
Madagascar	110	960	11
Malawi	50 300	55 000	92
Malaysia	330	<500	>95
Maldives	No data	No data	No data

Mali	2,300	7,400	31
Malta	No data	No data	No data
Mauritania	30	<500	12
Mauritius	No data	No data	No data
Mexico	1,100	2,200	49
Mongolia	No data	No data	No data
Montenegro	No data	No data	No data
Morocco	210	<500	63
Mozambique	107 000	120 000	86
Myanmar	4,400	5,600	78
Namibia	12 400	10 000	>95
Nepal	190	<500	63
Netherlands	No data	No data	No data
New Zealand	No data	No data	No data
Nicaragua	110	<200	88
Niger	980	2,500	40
Nigeria	49 800	160 000	30
Norway	No data	No data	No data
Oman	No data	No data	No data
Pakistan	180	3,100	6
Panama	200	<500	55
Papua New Guinea	720	1,700	41
Paraguay	210	<500	61
Peru	790	940	84
Philippines	50	<500	11
Poland	No data	No data	No data
Portugal	No data	No data	No data
Qatar	No data	No data	No data
Republic of Korea	No data	No data	No data
Republic of Moldova	210	<200	>95
Romania	No data	No data	No data
Russian Federation	No data	No data	No data
Rwanda	8,400	9,200	92
Saudi Arabia	No data	No data	No data
Senegal	1,200	2,300	53 D162
Serbia	No data	No data	No data
Sierra Leone	3,800	4,300	89
Singapore	No data	No data	No data
Slovakia	No data	No data	No data

Slovenia	No data	No data	No data
Somalia	80	690	12
South Africa	268 000	250 000	>95
South Sudan	5,400	8,900	60
Spain	No data	No data	No data
Sri Lanka	No data	No data	No data
Sudan	130	1,900	7
Suriname	90	<200	76
Sweden	No data	No data	No data
Switzerland	No data	No data	No data
Syrian Arab Republic	No data	No data	No data
Tajikistan	140	<500	62
Thailand	3,900	4,000	>95
The former Yugoslav republic of Macedonia	No data	No data	No data
Timor-Leste	No data	No data	No data
Togo	3,900	5,900	66
Trinidad and Tobago	110	<200	81
Tunisia	10	<100	23
Turkey	No data	No data	No data
Turkmenistan	No data	No data	No data
Uganda	107 000	95 000	>95
Ukraine	2,300	2,900	81
United Arab Emirates	No data	No data	No data
United Kingdom of Great Britain and Northern Ireland	No data	No data	No data
United Republic of Tanzania	79 700	94 000	85
United States of America	No data	No data	No data
Uruguay	130	<200	>95
Uzbekistan	450	720	62
Venezuela (Bolivarian Rep. of)	No data	No data	No data
Viet Nam	2,000	2,700	73
Yemen	No data	No data	No data
Zambia	65 700	71 000	92
Zimbabwe	60 600	63 000	>95

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