

medicines
patent
pool



medicines
patent
pool

UPDATE ON PROGRESS OF MPP SUBLICENSEES

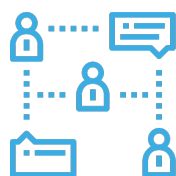
(Till June 2022)



This presentation showcases the progress made by MPP licensees (generic pharmaceutical companies).



To date, MPP has signed agreements with 18 patent holders for 14 HIV antiretrovirals, 1 HIV technology platform, 3 hepatitis C direct-acting antivirals, 1 tuberculosis treatment, 4 long-acting technologies, 1 non-communicable disease treatment, 3 experimental oral antiviral treatments for COVID-19 and 12 Covid-19 technologies.



Licensed products are developed by multiple MPP licensees, with an aim of encouraging competition, reducing market prices and providing faster access to medicines for people living in low- and middle-income countries (LMICs).



Generic medicines are developed and filed with stringent regulatory authorities such as the U.S. Food and Drug Administration (USFDA) and the World Health Organization prequalification (WHO-PQ), ensuring availability of quality assured products in LMICs.



This presentation gives a snapshot of the development of each licensed product and when the product may be filed with regulators. It also shows which countries the local filing is taking place in and when – thereby providing a clearer picture of availability of new formulations in each country.

MPP Partnerships With Innovators

- **abbvie**

lopinavir, ritonavir (adults)
lopinavir, ritonavir (paediatric)

- **Boehringer Ingelheim**

nevirapine (non-assert)

- **Bristol-Myers Squibb**

atazanavir

- **Gilead**

bictegravir
cobicistat
elvitegravir
emtricitabine
tenofovir alafenamide
tenofovir disoproxil fumarate

- **Janssen**

darunavir (paediatric; non-assert)

- **MSD**

raltegravir (paediatric)

- **NIH**

darunavir
related

- **ViiV Healthcare**

abacavir (paediatric)
dolutegravir (paediatric)
dolutegravir (adults)
dolutegravir (adults, for AZ, BY, KZ, MY)

- **MSD**

molnupiravir

- **Pfizer**

nirmatrelvir

- **Shionogi**

ensitrelvir

- **Novartis**

nilotinib

Hepatitis C

HIV

Tuberculosis

Technologies
(e.g., long-acting,
diagnostics)

COVID-19

NCD's

- **abbvie**

glecaprevir/pibrentasvir

- **Bristol-Myers Squibb**

daclatasvir

- **Pharco Corporation**

ravidasvir

- **Johns Hopkins University**

sutezolid

- **Pfizer**

sutezolid

- **ViiV**

cabotegravir LA for HIV PrEP

- **CSIC**

serological antibody diagnostic test
(COVID-19)

- **MedinCell**

LA technology for Malaria vector control

- **NIH**

Early-stage vaccine & diagnostic tools for COVID

- **Tandem Nano Ltd**

LA technologies for HCV, TB and Malaria
treatment

- **University of Liverpool**

Solid drug nanoparticle technology for HIV

- **University of Washington**

TLD LAI (HIV)

MPP Partnerships With Generics

● abacavir (paed)

Aurobindo

● atazanavir

Aurobindo
Cipla
Desano

Emcure
Mylan

● bictegravir

Adcock Ingram
Anhui Biochem
Arene Lifesciences Limited
Aurobindo

Desano
Emcure
Laurus Labs
Lupin
MacLeods

● cobicistat

Adcock Ingram
Anhui Biochem
Arene Lifesciences Limited

Emcure
Lupin

● dolutegravir

Adcock Ingram*
Arene Lifesciences Limited
Celltrion*
Cipla*
Desano*
Emcure*
Hetero*
Langhua

Laurus Labs*
Lupin*
MacLeods*
Mangalam
Micro Labs*
Limited
Mylan*
Strides*
Sun Pharma*

● elvitegravir

Adcock Ingram
Anhui Biochem

Arene Lifesciences Limited

● emtricitabine

Adcock Ingram
Anhui Biochem
Arene Lifesciences Limited
Aurobindo
Desano
Emcure
Laurus Labs
Lupin
MacLeods
Micro Labs Limited
Natco

● lopinavir, ritonavir

Adcock Ingram
Arene Lifesciences Limited
Aurobindo
Cipla #
Desano
Emcure
Hetero #
Lupin
Sun Pharma

● Raltegravir / Paed

Lupin

● tenofovir alafenamide

Adcock Ingram
Anhui Biochem
Arene Lifesciences Limited
Aurobindo
Desano
Emcure

Langhua
Laurus Labs
Lupin
MacLeods
Micro Labs Limited
Natco

● Tenofovir, disoproxil, fumarate

Adcock Ingram
Anhui Biochem
Arene Lifesciences Limited

● sutezolid / John Hopkins University

TB Alliance

● sutezolid / Pfizer

Bill & Melinda Gates Foundation

Hepatitis C

HIV

COVID-19

Tuberculosis

● daclatasavir

Beximco Pharma
Cipla
Hetero
Laurus Labs

Mylan
Natco
Zydus Cadila

● glecaprevir/pibrentasvir

Arene Lifesciences Limited
Mylan
Remington
USV

● molnupiravir

Arene Lifesciences Limited
BDR
Beximco Pharma
Biophore

Bright Gene
Celltrion
CPT Pharma
Desano

Dongbang
Fosun Pharma
Hikma
Incepta

Kimia farma
Langhua
Laurus
Lonzeal

MSN
Natco
Remington
SMS Pharma

Stella pharm
Strides
Universal Corporation Ltd

● nirmatrelvir

Anneal
Apeloa
Arene Lifesciences Limited
Aurisco
Aurobindo
Beximco Pharma
Biocon

Cadilla Pharmaceuticals Limited
Celltrion
Cipla
Darnitsa
Desana
Divis
Dongbang

Dr. Reddy's
Emcure
Fosun Pharma
Glenmark
Granules
Hetero
Hikma

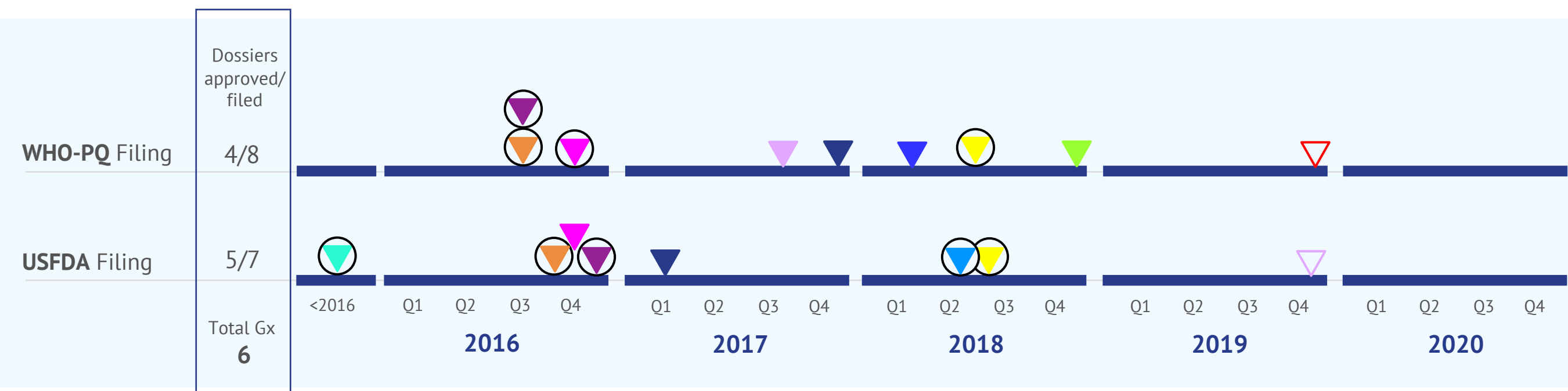
Huahai Pharmaceutical
Jiuzhou Pharmaceutical
Laurus
MacLeods
Magnachem
MSN
Mylan


Neolpharma
Nortec
Remington
SMS Pharmaceuticals Ltd
Stella pharm
Strides
Sun Pharma

Teva
Torrent Pharma
Zdravlje Leskovac

TRIANGLE CHARTS: A SNAPSHOT

Triangle charts represent a comparative analysis of each MPP licensee's filings with WHO-PQ and/or USFDA for each product country



 Companies approved
  Companies filed
  Companies planning to file

Note: Each triangle represents a manufacturer and timelines represent date of filing

See following slides for explanation

TRIANGLE CHARTS EXPLAINED (1/7)

Stringent Regulatory Authorities
for filing the product



WHO-PQ Filing

USFDA Filing

Q1 Q2 Q3 Q4

2016

Q1 Q2 Q3 Q4

2017

Q1 Q2 Q3 Q4

2018

Q1 Q2 Q3 Q4

2019

TRIANGLE CHARTS EXPLAINED (2/7)

WHO-PQ Filing

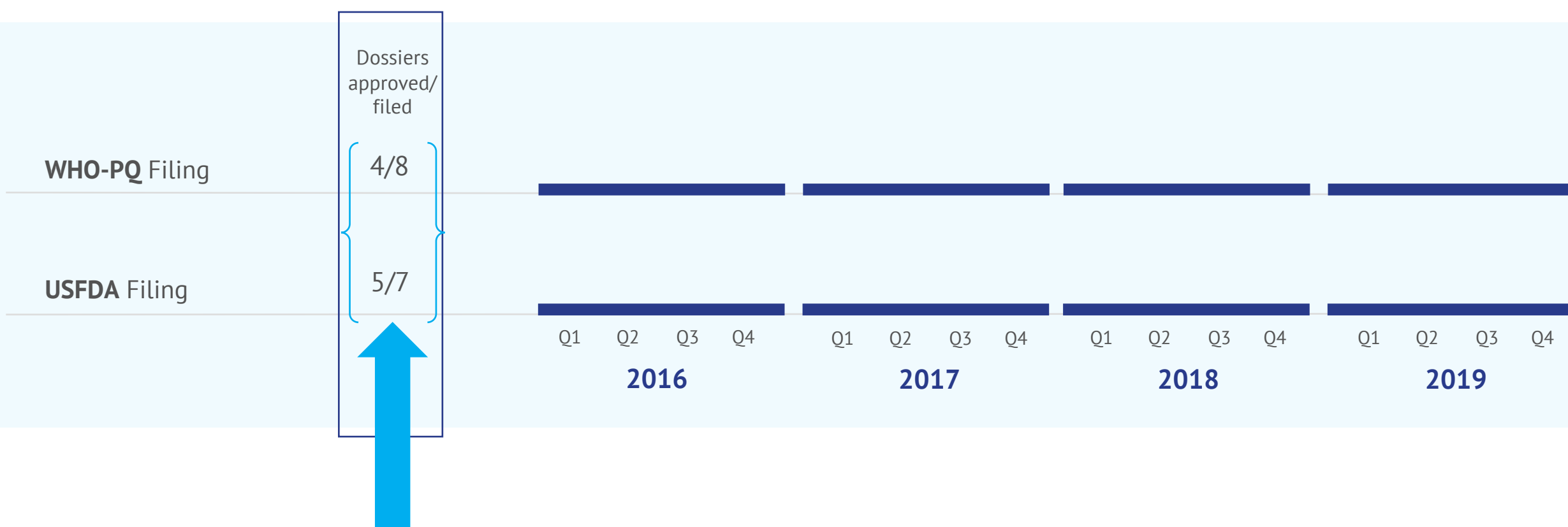
USFDA Filing

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

2016 2017 2018 2019

Timeline represents **date of filing** of generics with
WHO-PQ and/or USFDA

TRIANGLE CHARTS EXPLAINED (3/7)



No. of companies that have **received approval out of total companies filed** with WHO-PQ/USFDA

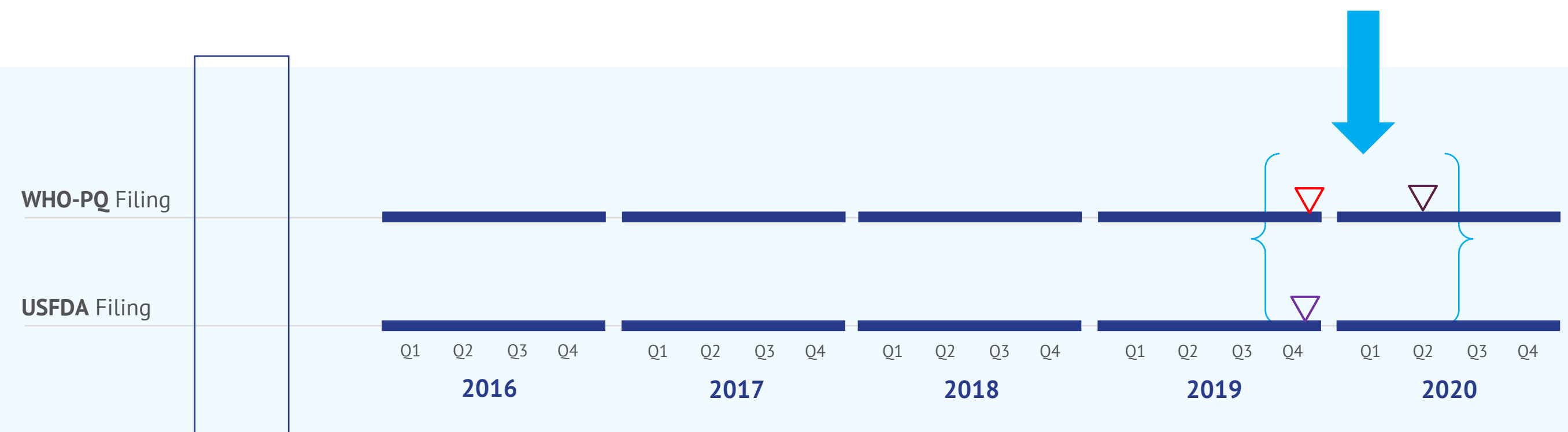
TRIANGLE CHARTS EXPLAINED (4/7)



Total no. of companies that have been approved by WHO-PQ/USFDA

TRIANGLE CHARTS EXPLAINED (5/7)

Outlined triangles (▽) represent companies **developing the product** and **planning to file** with WHO-PQ and/or USFDA

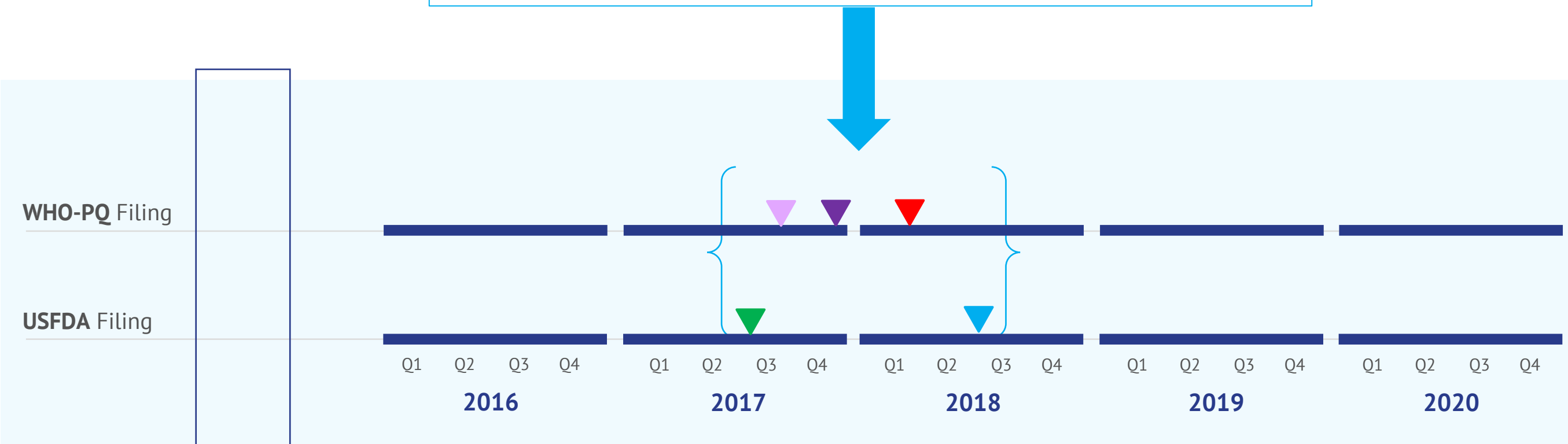


▽ Companies planning to file

Note: Each triangle represents a manufacturer and timelines represent date of filing

TRIANGLE CHARTS EXPLAINED (6/7)

Filled triangles (▼) represent companies who have **completed the product development** and have **filed** with WHO-PQ and/or USFDA

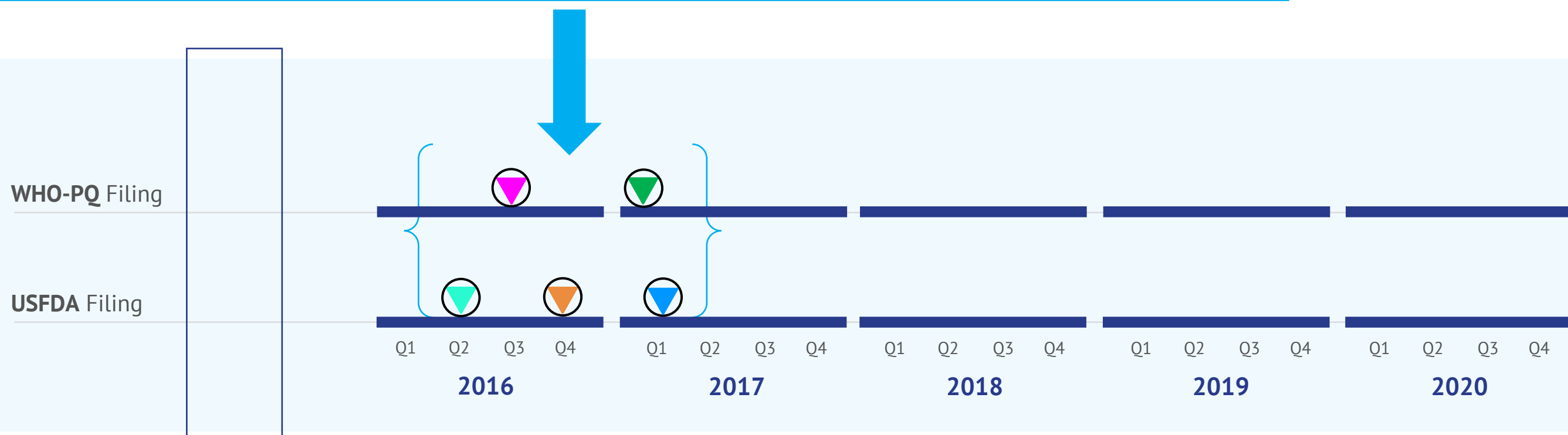


▼ Companies filed

Note: Each triangle represents a manufacturer and timelines represent date of filing

TRIANGLE CHARTS EXPLAINED (7/7)

Circled triangles ▼ represent companies who have **completed the product development** and have **received approvals** from WHO-PQ and/or USFDA



▼ Companies approved

Note: Each triangle represents a manufacturer and timelines represent date of filing



DOLUTEGRAVIR

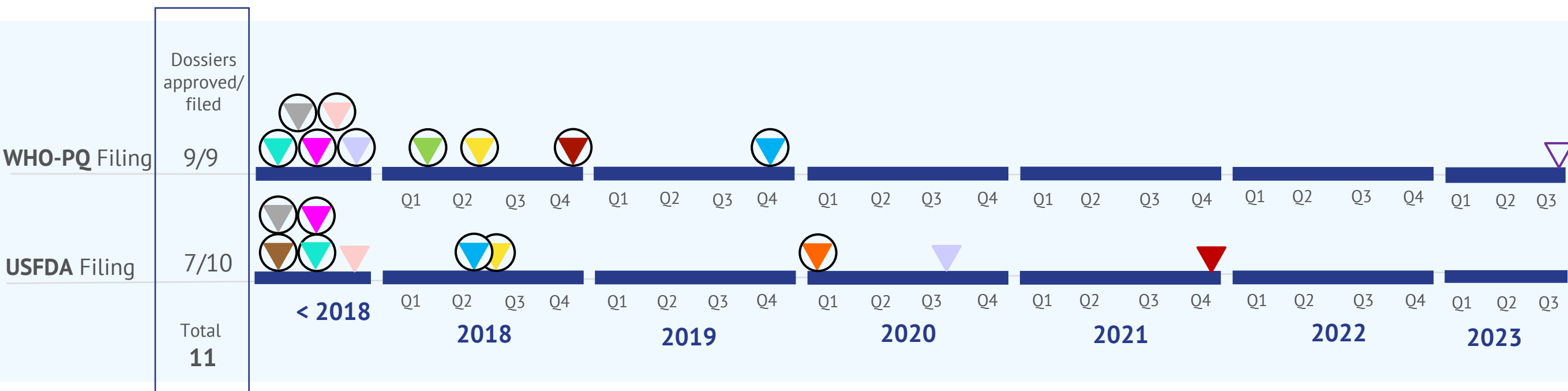


16 dolutegravir sublicensee agreements

DOLUTEGRAVIR



DTG 50mg: FORMULATION DEVELOPMENT TIMELINES



**11 MPP LICENSEES HAVE DEVELOPED DTG 50MG, OF WHICH:
ALL 11 COMPANIES ARE READY TO COMMERCIALIZE THE PRODUCT**

Licensees Approved*: Aurobindo, Cipla, Desano, Emcure, Hetero, Laurus, Macleods, Micro Labs, Mylan, Strides, Sun Pharma, Viartis

3 licensees awaiting USFDA approval

1 additional licensee developing and plans to file with WHO in Q3-23

DTG 50mg: COUNTRY-WISE FILING STATUS

Generic DTG 50mg has been filed in **72** countries, of which approval has been received in **57** countries
Filings have occurred where **92.3%** of PLHIV[^] reside in the licensed territory[#]

| APPROVED (57) 88.41% PLHIV | | | | |
|-------------------------------|-----------------|-------------|-----------------------------------|---------------------------|
| Anguilla* | Congo, Dem. Rep | Iran | Niger | Thailand* |
| Antigua and Barbuda* | Congo, Rep | Kazakhstan | Nigeria | Turkmenistan |
| Azerbaijan | Costa Rica* | Kenya | Pakistan | Turks and Caicos Islands* |
| Bahamas* | Côte d'Ivoire | Kyrgyzstan | Panama | Uganda |
| Barbados* | Dominica* | Malawi | Peru* | Ukraine |
| Benin | Ethiopia | Malaysia | Philippines | Uruguay* |
| Bhutan | Ghana | Mauritius | Rwanda | Uzbekistan |
| Botswana | Grenada | Montserrat* | Saint Lucia* | Zambia |
| Burundi | Guatemala | Mozambique | Saint Vincent and the Grenadines* | Zimbabwe |
| Cambodia | Honduras | Myanmar | South Africa | |
| Chad | India | Namibia | Tajikistan | |
| Chile* | Indonesia | Nicaragua | Tanzania | |

| FILED (15) 3.84% PLHIV | |
|---------------------------|------------|
| Armenia | Madagascar |
| Belarus | Mali |
| Burkina Faso | Moldova |
| Cameroon | Morocco |
| El Salvador | Senegal |
| Gabon | Sri Lanka |
| Guyana | Viet Nam |
| Jamaica* | |

▪ New filings and approvals in **blue** vis-à-vis last update (Q1-22)

▪ Countries where DTG has been sold indicated in **bold type**

* Countries not included in DTG Adult licence but supply by MPP licensees permitted if no patent is being infringed in that country

[^] People living with HIV

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

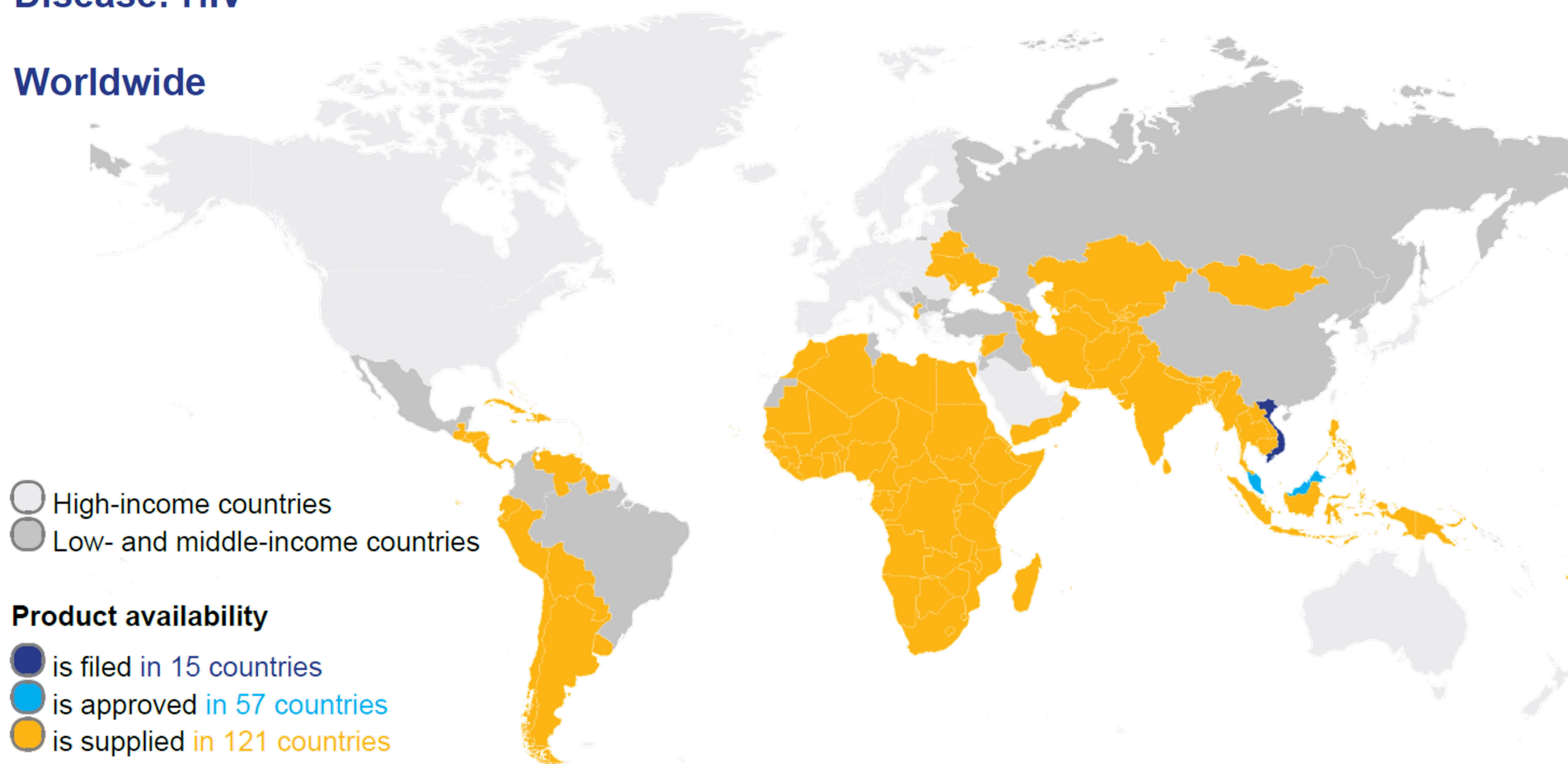
[#] [MPP-ViiV DTG licence agreement](#)

DTG 50mg sales have occurred in **121** countries in which **99.8%** of PLHIV[^] reside in the licensed territory[#]

DTG adult (50 mg)

Disease: HIV

Worldwide



Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

[^] People living with HIV

[#] [MPP-ViiV DTG licence agreement](#)

TDF/3TC/DTG (TLD): FORMULATION DEVELOPMENT TIMELINES



Companies approved



Companies filed

Note: Each triangle represents a manufacturer and timelines represent date of filing

**13 MPP LICENSEES HAVE DEVELOPED TDF/3TC/DTG, OF WHICH:
ALL 13 COMPANIES ARE READY TO COMMERCIALIZE THE PRODUCT**

Licensees Approved*: Aurobindo, Celltrion, Cipla, Desano, Emcure, Hetero, Laurus, Lupin, Macleods, Micro Labs, Mylan, Strides, Sun Pharma

2 licensees awaiting WHO-PQ approval | 4 licensees awaiting USFDA approval

Generic TDF/3TC/DTG has been filed in **71** countries, of which approval is received in **56** countries
Filings have occurred where **93.1%** of PLHIV[^] reside in the licensed territory[#]

| APPROVED (56) 90.6% PLHIV | | | | |
|------------------------------|-----------------|-------------|-----------------------------------|---------------------------|
| Anguilla* | Chad | Indonesia | Myanmar | Turkmenistan |
| Antigua and Barbuda* | Chile* | Kazakhstan | Namibia | Turks and Caicos Islands* |
| Azerbaijan | Congo, Dem. Rep | Kenya | Niger | Uganda |
| Bahamas* | Congo, Rep | Kyrgyzstan | Nigeria | Ukraine |
| Barbados* | Côte d'Ivoire | Madagascar | Peru* | Uzbekistan |
| Belarus | Dominica* | Malawi | Philippines | Viet Nam |
| Benin | Ethiopia | Malaysia | Rwanda | Zambia |
| Bhutan | Gabon | Mali | Saint Lucia* | Zimbabwe |
| Botswana | Gambia | Mauritania | Saint Vincent and the Grenadines* | |
| Burkina Faso | Ghana | Mauritius | South Africa | |
| Cambodia | Grenada* | Montserrat* | Tanzania | |
| Cameroon | India | Mozambique | Thailand* | |

| FILED (15) 2.5% PLHIV | |
|--------------------------|-------------------|
| Armenia | Moldova |
| Bangladesh | Pakistan |
| Burundi | Senegal |
| El Salvador | Sierra Leone |
| Georgia | Sudan |
| Guatemala | Tajikistan |
| Guinea | Togo |
| Lebanon | |

▪ New filings and approvals in **blue** vis-à-vis last update (Q1-22)

▪ Countries where TLD has been sold indicated in **bold type**

* Countries not included in DTG Adult licence but supply by MPP licensees permitted if no patent is being infringed in that country

[^] People living with HIV

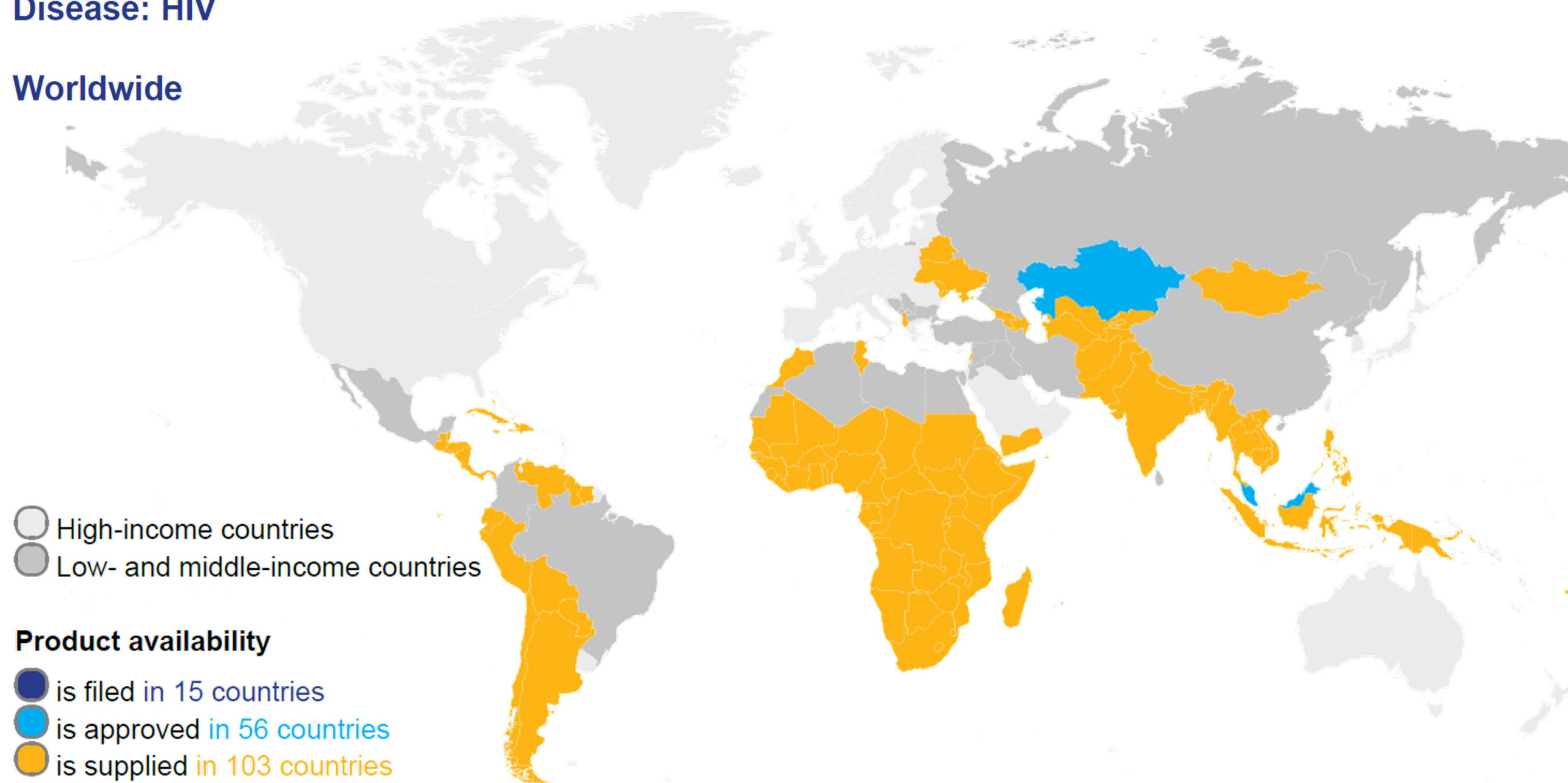
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

[#] [MPP-ViiV DTG licence agreement](#)

TLD - TDF/3TC/DTG (300/300/50 mg)

Disease: HIV

Worldwide

# [MPP-ViiV DTG licence agreement](#)

DTG & TLD: COUNTRIES OF SALE - (2017 to June 2022)

Countries of Sale (125), where 99.7% of PLHIV[^] covered by the license reside[#]

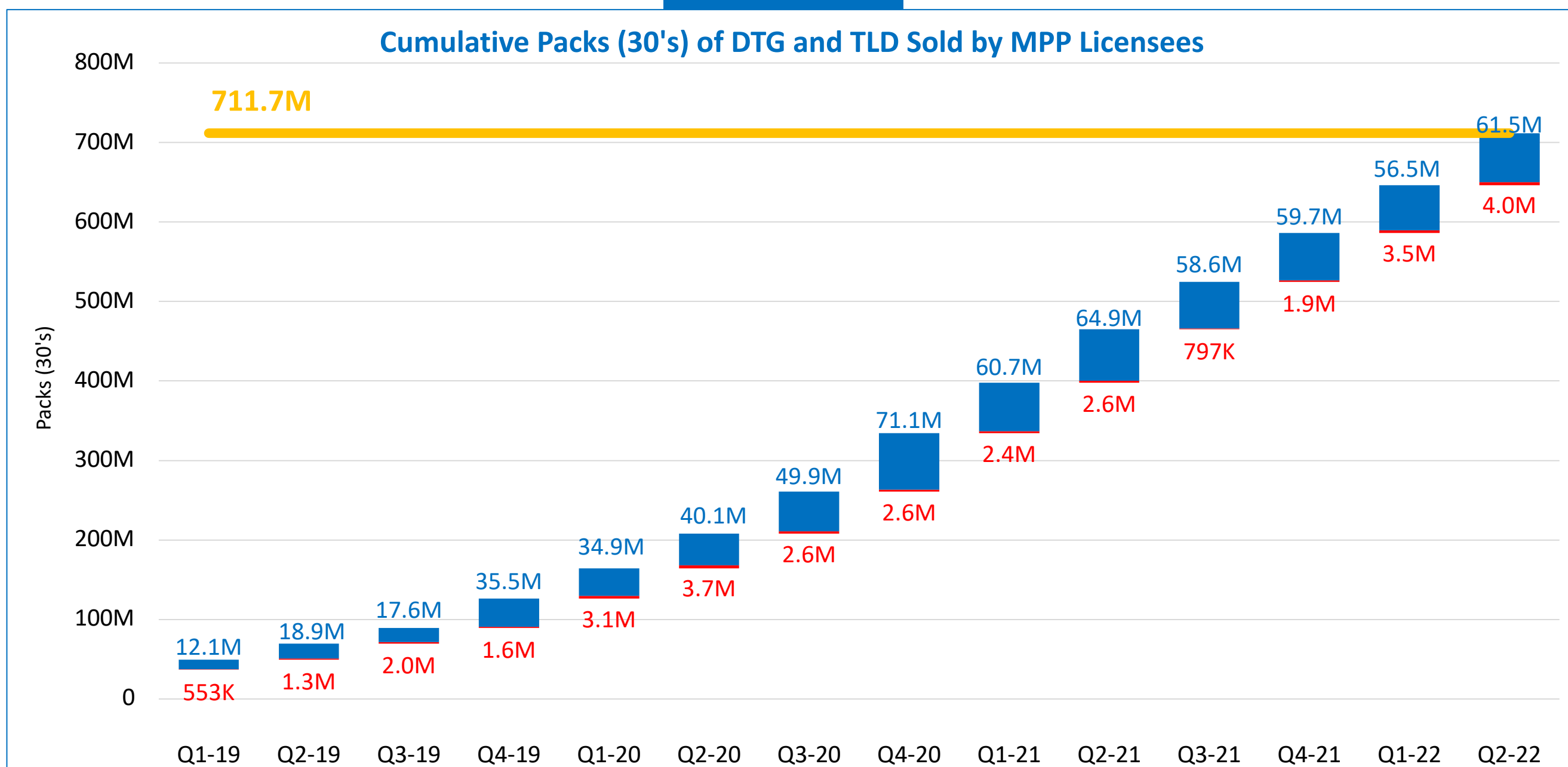
| | | | | | | |
|---------------------|-----------------------------------|-------------------|--|----------------------------------|----------------------------------|------------------------------------|
| Afghanistan | Botswana | Ecuador | Honduras | Mauritius | Peru | Tanzania, United Republic of |
| Albania | Burkina Faso | Egypt | India | Micronesia (Federated States of) | Philippines | Thailand |
| Algeria | Burundi | El Salvador | Indonesia | Moldova, Republic of | Rwanda | Timor-Leste |
| Angola | Cabo Verde | Equatorial Guinea | Iran (Islamic Republic of) | Mongolia | Saint Kitts and Nevis | Togo |
| Anguilla | Cambodia | Eritrea | Jamaica | Montserrat | Saint Lucia | Tunisia |
| Antigua and Barbuda | Cameroon | Eswatini | Kazakhstan | Morocco | Saint Vincent and the Grenadines | Turkmenistan |
| Argentina | Central African Republic | Ethiopia | Kenya | Mozambique | Sao Tome and Principe | Turks and Caicos Islands |
| Armenia | Chad | Fiji | Kosovo | Myanmar | Senegal | Uganda |
| Azerbaijan | Chile | Gabon | Kyrgyzstan | Namibia | Seychelles | Ukraine |
| Bahamas | Comoros | Gambia | Lao People's Democratic Republic (the) | Nepal | Sierra Leone | Uruguay |
| Bangladesh | Congo | Georgia | Lebanon | Nicaragua | Somalia | Uzbekistan |
| Barbados | Congo, democratic Republic of the | Ghana | Lesotho | Niger | South Africa | Venezuela (Bolivarian Republic of) |
| Belarus | Costa Rica | Grenada | Liberia | Nigeria | South Sudan | Viet Nam |
| Belize | Côte d'Ivoire | Guatemala | Libya | Oman | Sri Lanka | Virgin Islands (British) |
| Benin | Cuba | Guinea | Madagascar | Pakistan | Sudan | Yemen |
| Bermuda | Djibouti | Guinea-Bissau | Malawi | Panama | Suriname | Zambia |
| Bhutan | Dominica | Guyana | Mali | Papua New Guinea | Syran Arab Republic | Zimbabwe |
| Bolivia | Dominican Republic | Haiti | Mauritania | Paraguay | Tajikistan | |

Analysis include sales of DTG 50mg and TDF/3TC/DTG:

● Sales of DTG 50mg only (n=22) ● Sales of TLD only (n=4)

Cumulative Packs Sold: TLD & DTG 50mg (2017- June 2022)

675.5 million packs of TLD and **36.3** million packs of DTG 50mg sold till June 2022



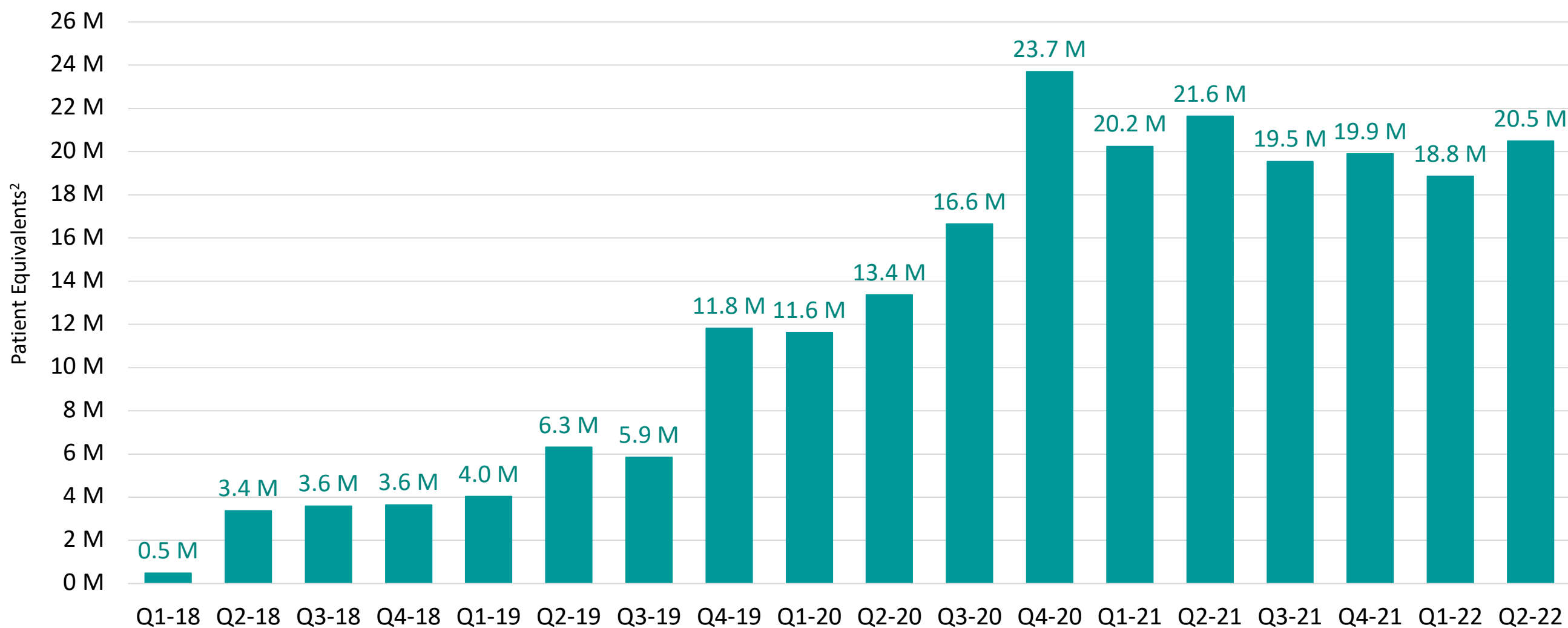
Source: confidential sales data by MPP licensees

● DTG 50mg ● TLD ● Total Packs

Patient Equivalents Receiving TDF/3TC/DTG (TLD) Through MPP Licensees

Today, at least **19.7** million people living with HIV (PLHIV) are on MPP-enabled generic TLD¹
(**>80% of PLHIV on ART in LMICs**)²

Patient Equivalents² Receiving TDF/3TC/DTG Supplied Through MPP Licensees per Quarter



Source: confidential sales data by MPP licensees

● TLD

Note: Packs of 90 's and 180's converted to 30's for this analysis. Analysis excludes sales of DTG 50mg singles.

¹ Total PLHIV on TLD-based treatment calculated by dividing total packs sold in the last 4 quarters by 12 (months);

² "Patient Equivalents" per quarter calculated by dividing the total packs of TLD sold in a quarter by 3 (months)

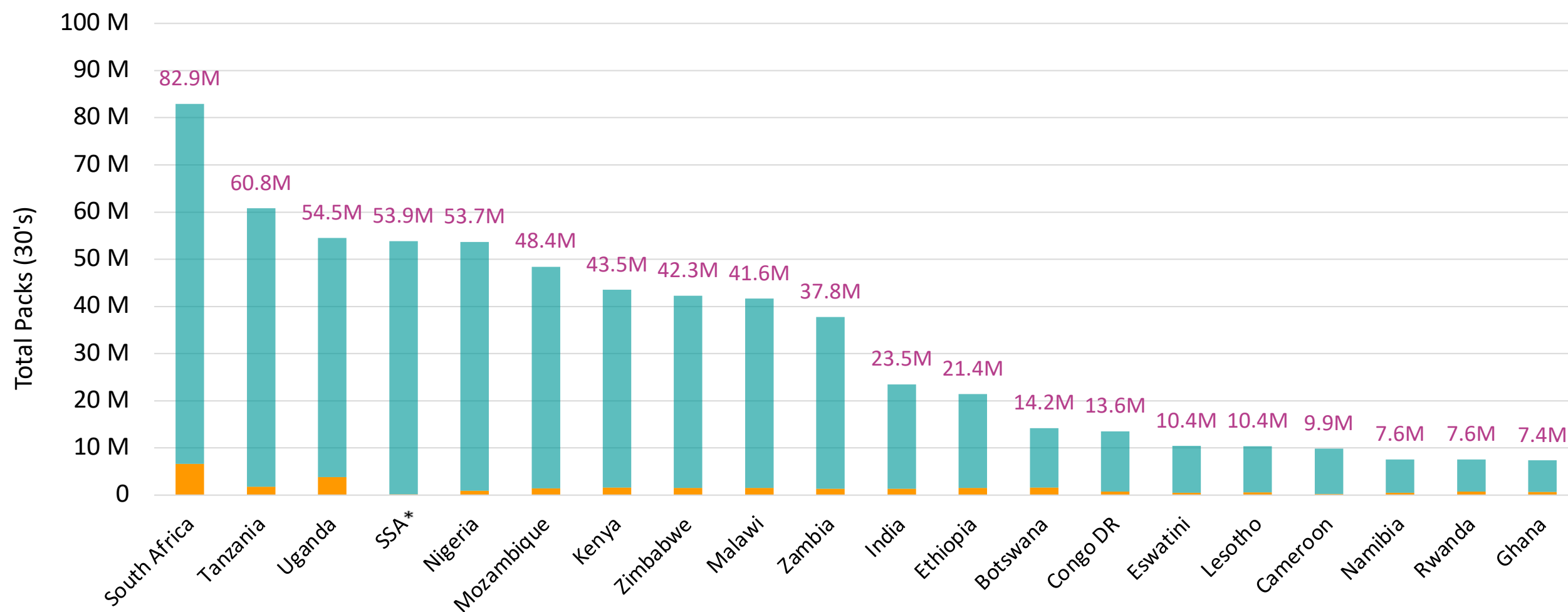
³ Epi data sourced from Consolidated Forecast of Global ARV Demand (WHO): 24,463,415 PLHIV on First Line ART (2021)

TOP COUNTRY RECIPIENTS OF DTG & TLD (2017- June 2022)

Top 20 countries comprise more than **80%** of the TLD market in LMICs (by volume)*

Ratio of DTG 50mg:TLD in country-level sales data suggests DTG 50mg is largely being used for **TB-coinfection and/or 2L ART**

Sale of DTG-Based HIV Treatment Through MPP Licensees By Country (TLD & DTG)



Source: confidential sales data by MPP licensees

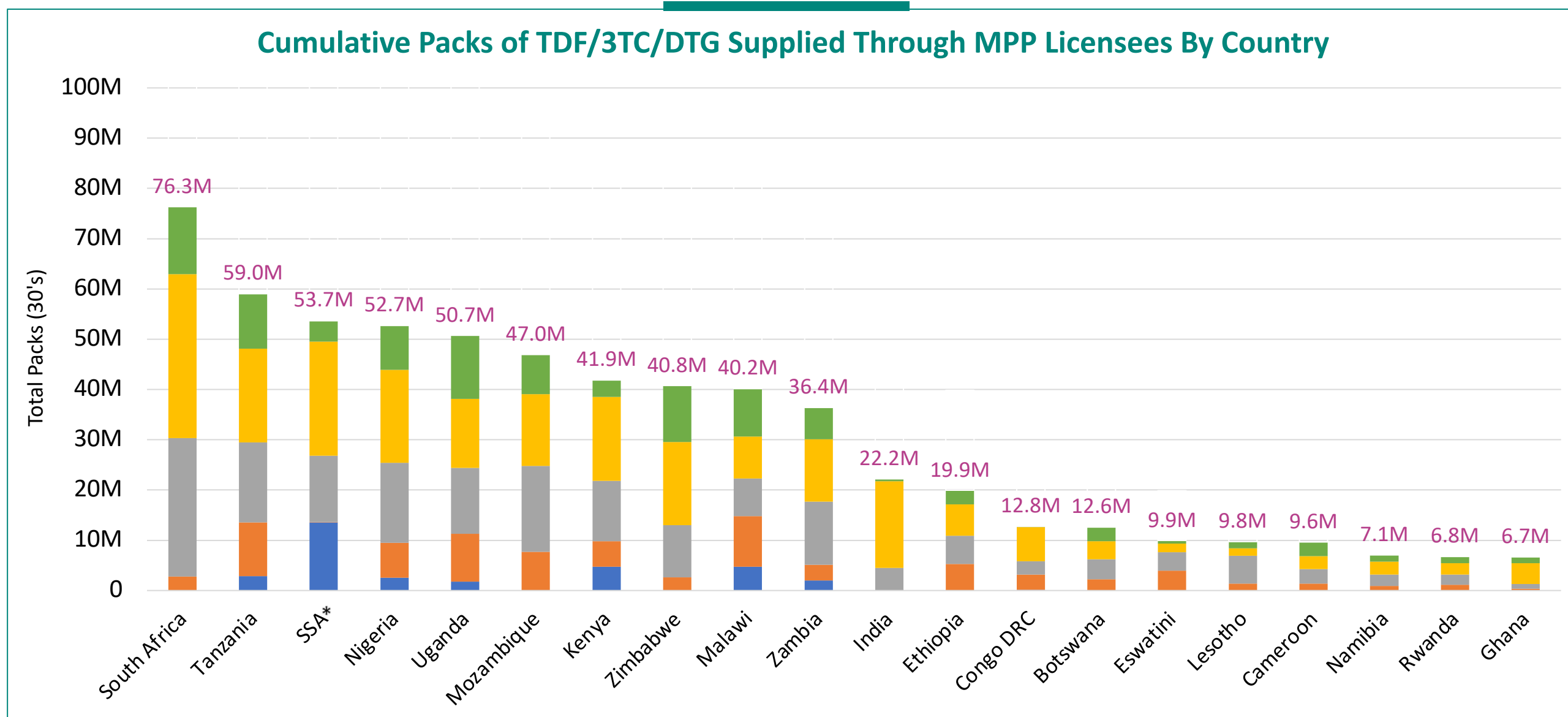
● DTG 50mg
 ● TLD
 # Total Packs Sold

* Excludes SSA

**Sub-Saharan Africa (SSA): non-identified countries by which sales were made through procurement agents
Packs of 90's & 180's converted to 30's for this analysis;

Rapid Scale-Up of TLD (2018 – June 2022)

As of June 2022, TLD was supplied in **103** countries by **11** of MPP Partners
Barbados, Belarus, Micronesia & Tunisia reported TLD sales for the first time in **Q2-22**

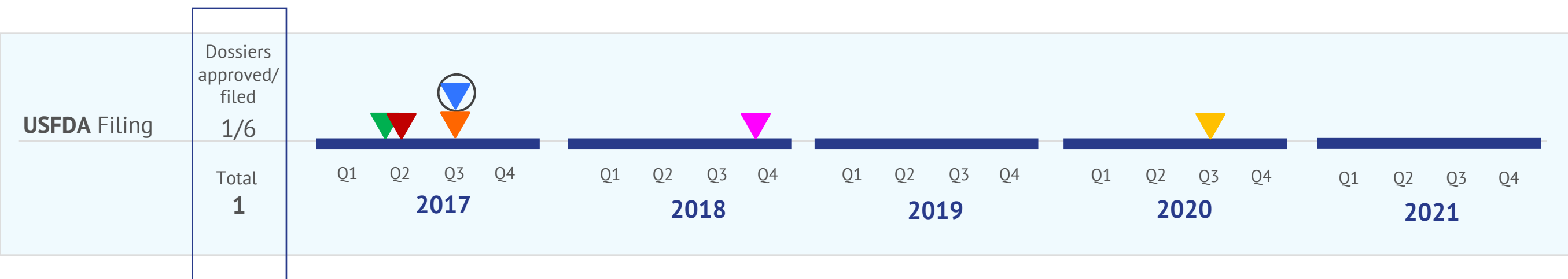


Source: confidential sales data by MPP licensees

● 2018
 ● 2019
 ● 2020
 ● 2021
 ● 2022
 (#) Total Packs Sold

*Sub-Saharan Africa (SSA): non-identified countries by which sales were made through procurement agents
 Packs of 90's & 180's converted to 30's for this analysis;

ABC/3TC/DTG (Adult): FORMULATION DEVELOPMENT TIMELINES



Companies approved



Companies filed

Note: Each triangle represents a manufacturer and timelines represent date of filing

**6 MPP LICENSEES HAVE DEVELOPED ABC/3TC/DTG ADULT FORMULATION
AND LAURUS IS READY TO SUPPLY**

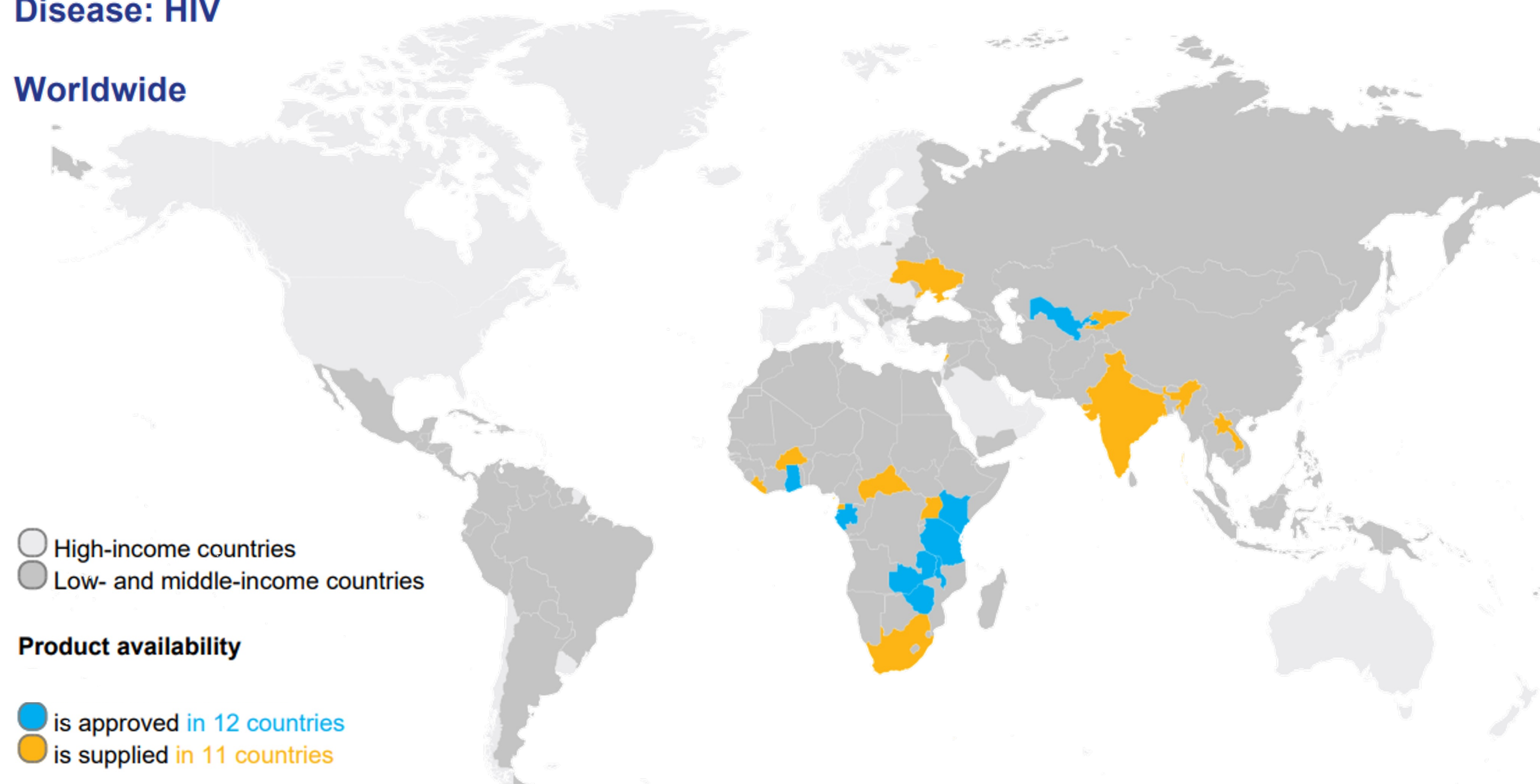
Five licensees awaiting USFDA approval

ALD adult sales have occurred in **11** countries in which **39.2%** of PLHIV[^] reside in the licensed territory[#]

ALD - ABC/3TC/DTG (600/300/50 mg)

Disease: HIV

Worldwide

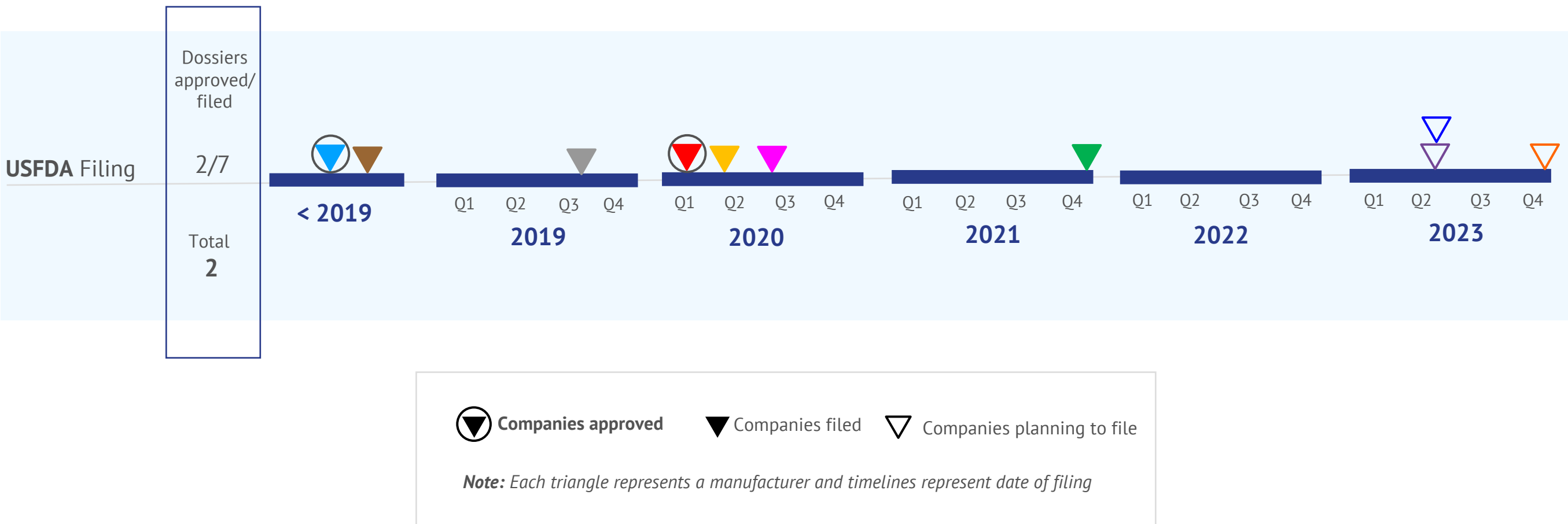


Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

[^] People living with HIV

[#] [MPP-ViiV DTG licence agreement](#)

TAF/FTC/DTG (TAF-ED): FORMULATION DEVELOPMENT TIMELINES



**7 MPP LICENSEES HAVE DEVELOPED TAF/FTC/DTG, OF WHICH:
2 COMPANIES ARE READY TO COMMERCIALIZE THE PRODUCT**

Licensees Approved: Laurus, Mylan

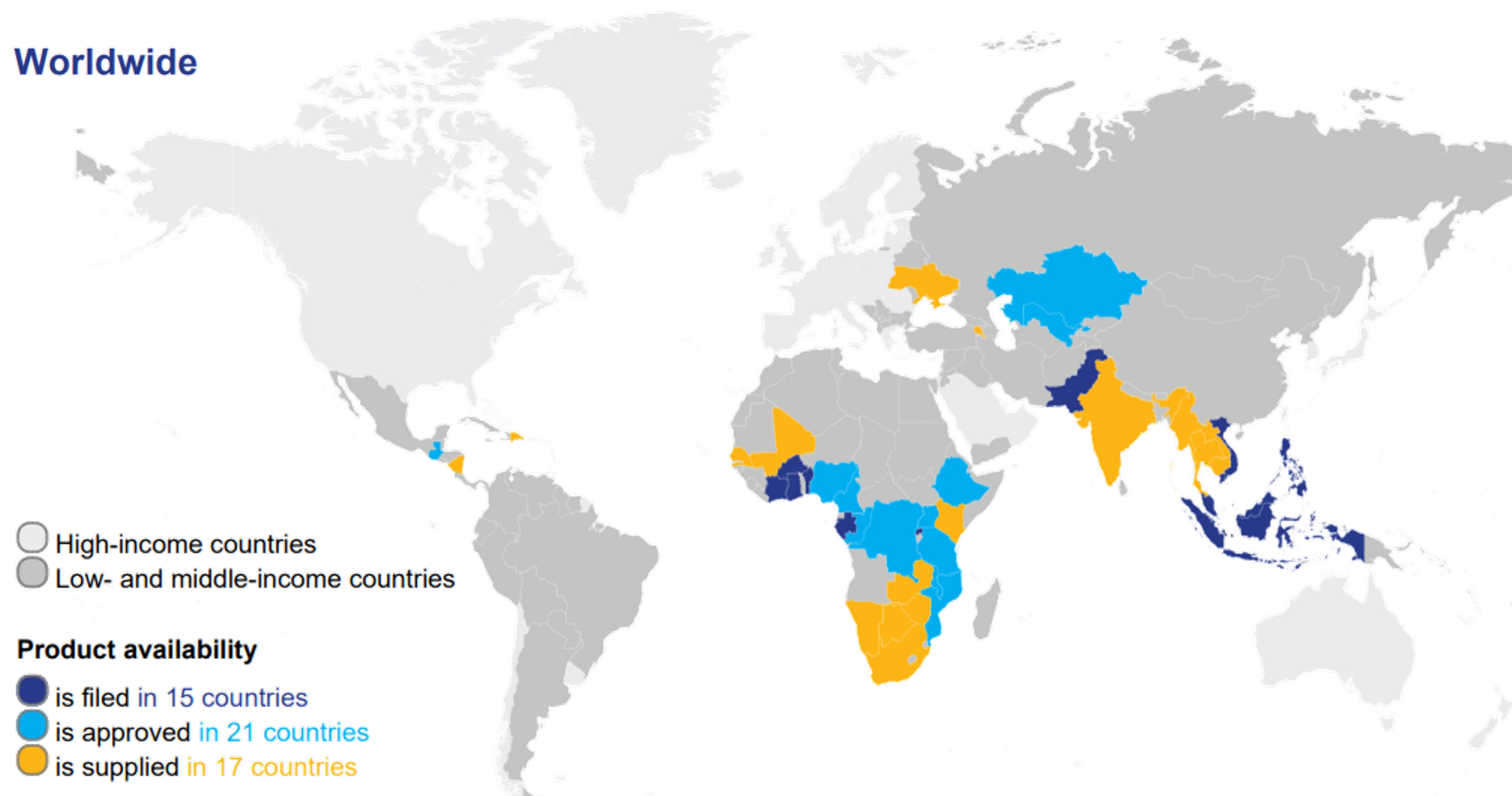
5 licensees awaiting USFDA approval | 3 additional licensees developing | Two plan to file in Q2-23 | Another plans to file in Q4-23

TAF-ED sales have occurred in **17** countries in which **52.4%** of PLHIV[^] reside in the licensed territory[#]

TAF/FTC/DTG (25/200/50 mg)

Disease: HIV

Worldwide

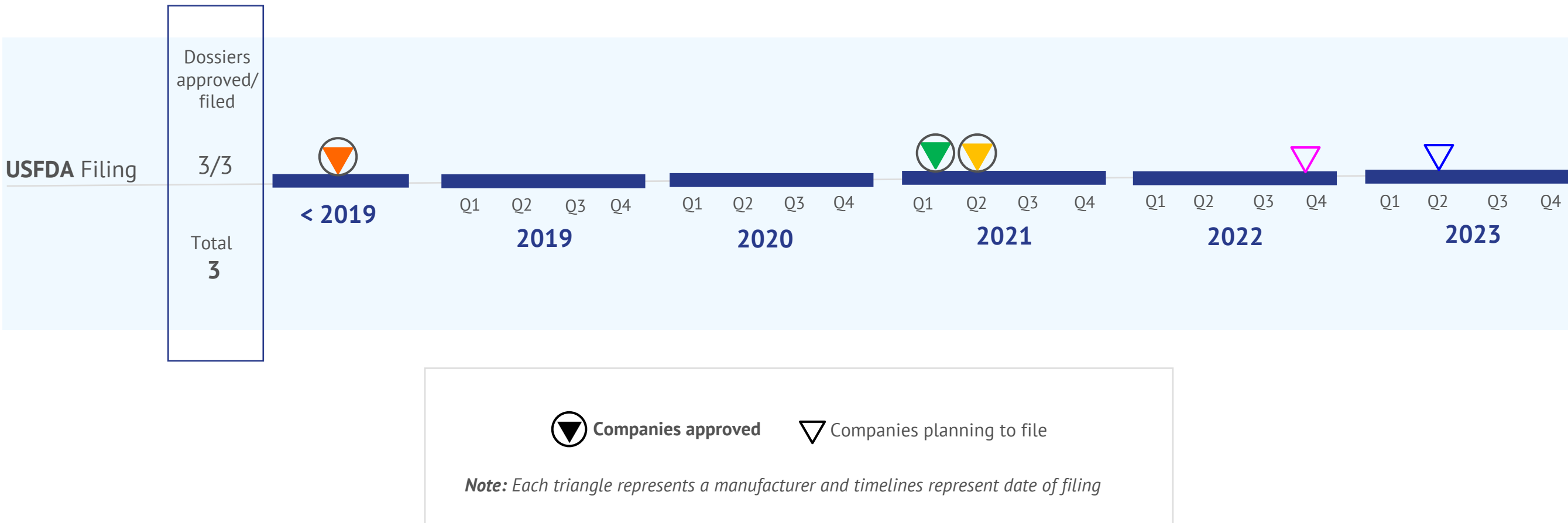


Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

[^] People living with HIV

[#] [MPP-Gilead TAF licence agreement](#)

TAF/3TC/DTG (TAF-LD): FORMULATION DEVELOPMENT TIMELINES



**3 MPP LICENSEES HAVE DEVELOPED TAF/3TC/DTG, OF WHICH:
ALL **THREE** ARE READY TO COMMERCIALIZE THE PRODUCT**

Licensees Approved: Cipla, Laurus, Mylan

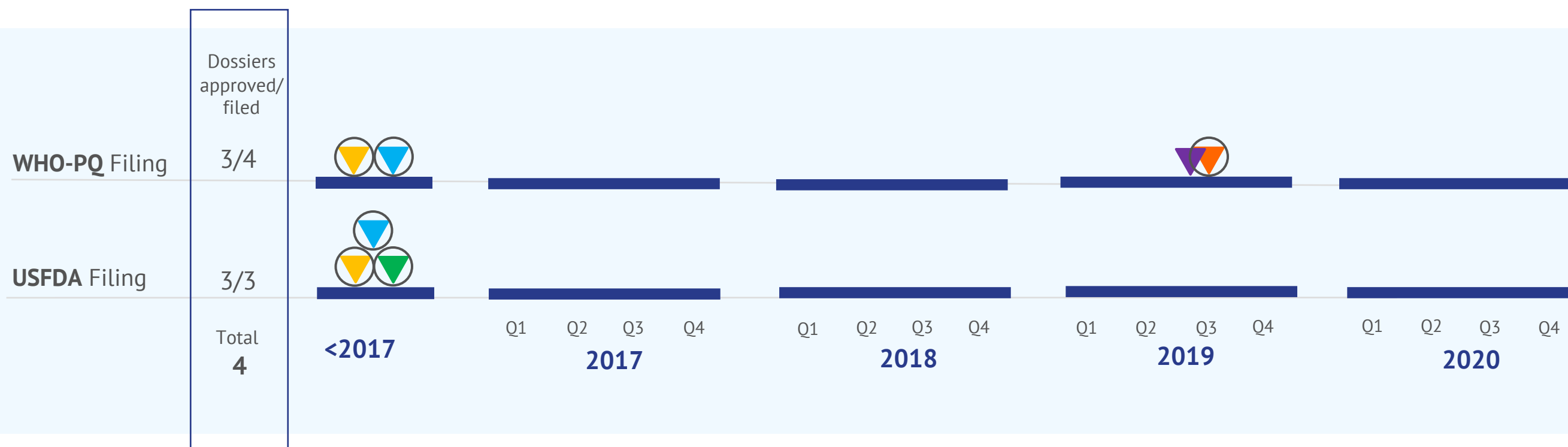
2 additional licensees developing this product | One plans to file in **Q4-22** and another in **Q2-23**



medicines
patent
pool

ADDITIONAL FORMULATIONS

FORMULATION DEVELOPMENT TIMELINES



Companies approved



Companies filed

Note: Each triangle represents a manufacturer and timelines represent date of filing

**5 MPP LICENSEES HAVE DEVELOPED ATV/R, OF WHICH:
4 COMPANIES ARE READY TO COMMERCIALIZE THE PRODUCT**

Licensees Approved*: Cipla, Desano, Emcure, Mylan

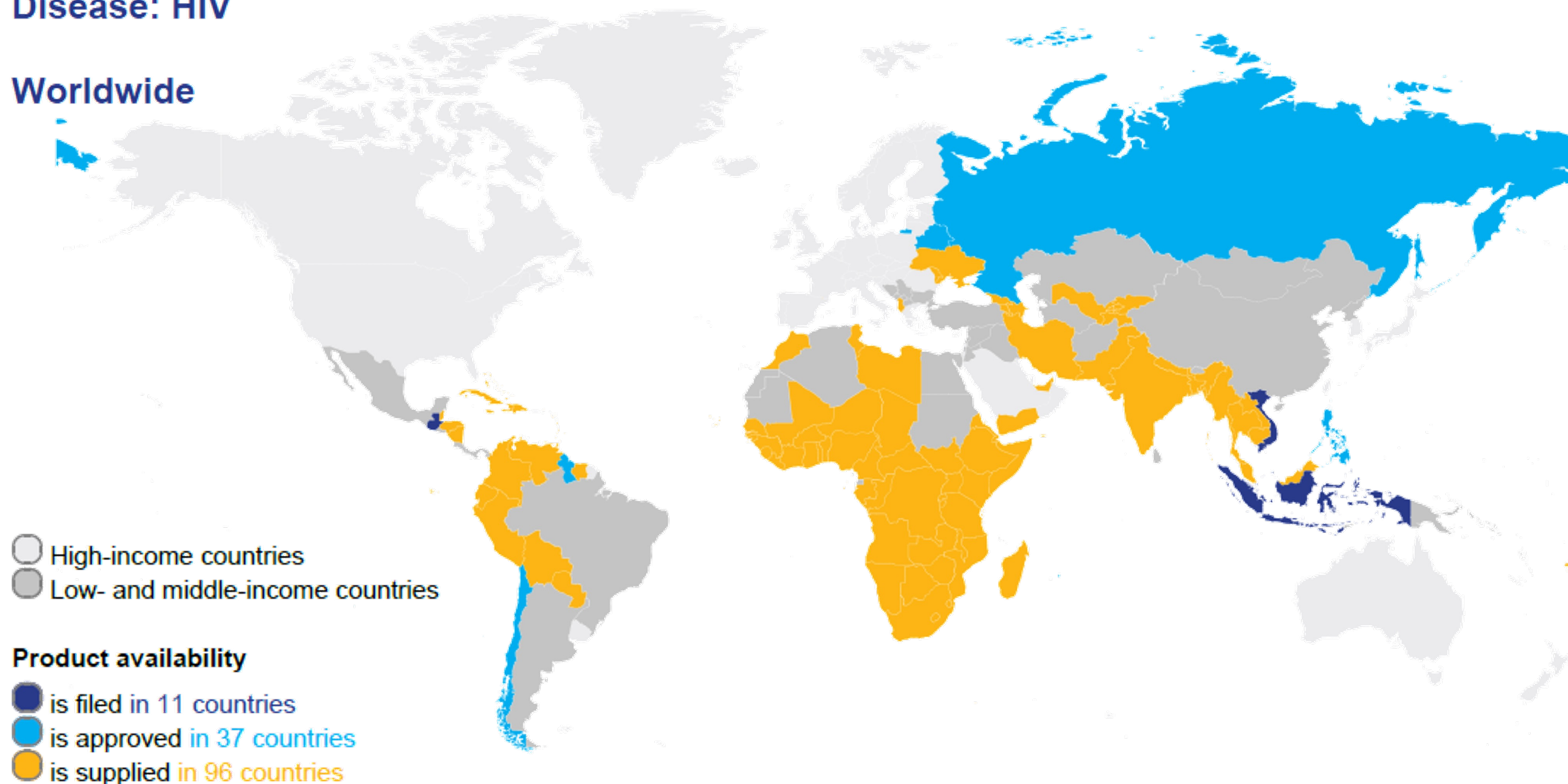
1 licensee awaiting WHO-PQ approval

ATV/r sales have occurred in **96** countries in which **95.9%** of PLHIV[^] reside in the licensed territory[#]

ATV/r (300/100 mg)

Disease: HIV

Worldwide

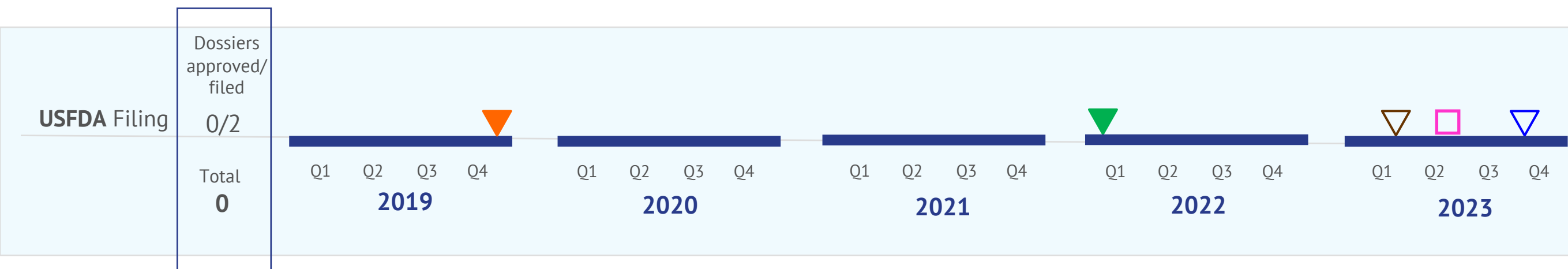


Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

[^] People living with HIV

[#] [MPP-BMS ATV licence agreement](#)

DTG/3TC: FORMULATION DEVELOPMENT TIMELINES



Companies filed



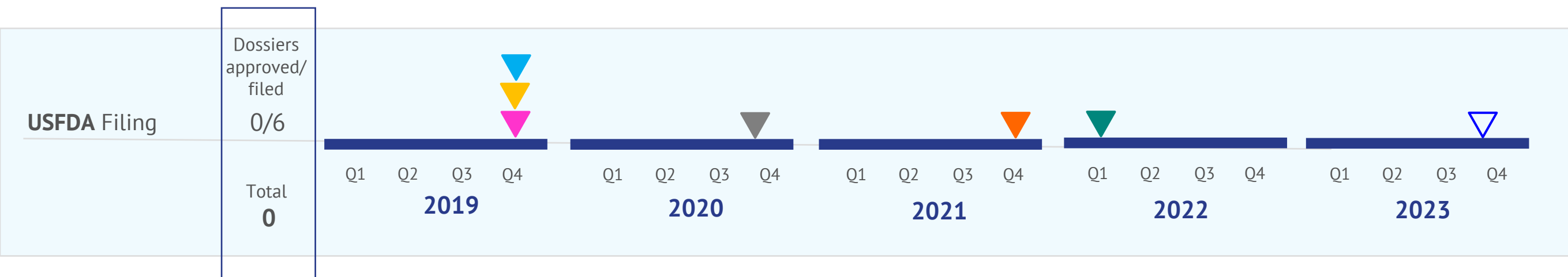
Companies planning to file

Note: Each triangle represents a manufacturer and timelines represent date of filing

**2 MPP LICENSEES HAVE DEVELOPED DTG/3TC
AND ARE AWAITING USFDA APPROVAL**

3 additional licensees developing this product | Two plan to file in **H1-23** | Other plans to file in **H2-23**

TAF/FTC: FORMULATION DEVELOPMENT TIMELINES



Companies filed



Companies planning to file

Note: Each triangle represents a manufacturer and timelines represent date of filing

**6 MPP LICENSEES HAVE DEVELOPED TAF/FTC COMBINATION
AND ARE AWAITING USFDA APPROVAL**

1 additional licensee developing this product and plans to file in **Q4-23**

A close-up photograph of three young children of South Asian descent, smiling warmly at the camera. They are wearing traditional bindis on their foreheads. The child on the left has a white bindi, while the other two have red ones. They are dressed in casual clothing, with the child on the right wearing a red and white striped shirt. The background is softly blurred, suggesting an outdoor setting.

medicines
patent
pool

PAEDIATRIC HIV

DTG 10mg scored
(dispersible tablets)

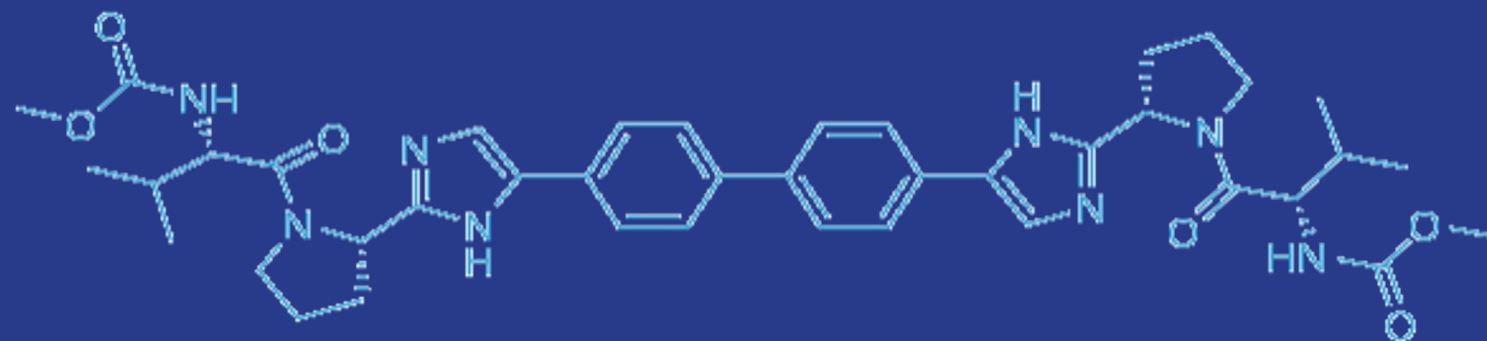
- Two MPP licensees have received approval from USFDA (Mylan & Macleods) and WHO-PQ (Macleods) and are ready to supply the product. Another two licensees are developing and plan to file with either USFDA or WHO in Q1-23

ABC/3TC/DTG
(60/30/5mg dispersible tablets)

- Seven MPP licensees are developing this product combination. Four plan to file either with USFDA or WHO in 2022, two other in 2023 and one in 2024



DACLATASVIR

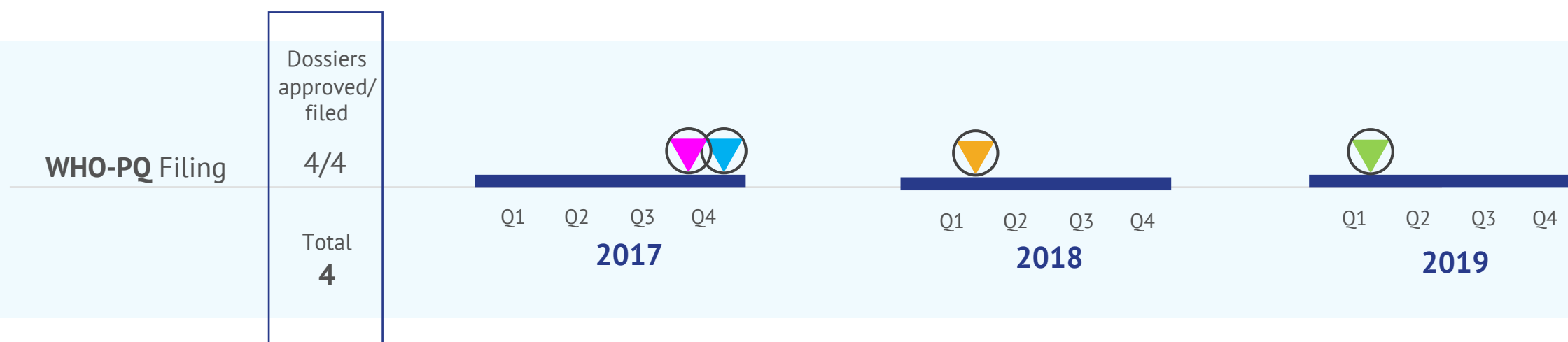


7 daclatasvir sublicensee agreements

DACLATASVIR



DAC 30mg & 60mg: FORMULATION DEVELOPMENT TIMELINES



 Companies approved

Note: Each triangle represents a manufacturer and timelines represent date of filing

**4 MPP LICENSEES HAVE DEVELOPED DAC 30/60 MG AND
ARE READY TO COMMERCIALIZE THE PRODUCT**

Licensees Approved: Cipla, Hetero, Laurus, Mylan

DAC 30mg & 60mg: COUNTRY-WISE FILING STATUS

Generic DAC has been filed in **53** countries, of which approval has been received in **40** countries
Filings have occurred where **60.1%** PLHCV[^] reside in the licensed territory[#]

APPROVED (40) 56.3% PLHCV

| | | | |
|--------------------|-------------------|--------------------|---------------------|
| Benin | Ethiopia | Malaysia | Suriname |
| Burkina Faso | Gabon | Mongolia | Tanzania |
| Burundi | Ghana | Mozambique | Thailand |
| Cambodia | Guyana | Myanmar | Turkmenistan |
| Cameroon | India | Nicaragua | Uganda |
| Chad | Indonesia | Nigeria | Ukraine |
| Congo, Dem. Rep | Kazakhstan | Pakistan | Uzbekistan |
| Congo, Rep | Kyrgyzstan | Paraguay | Vietnam |
| Côte d'Ivoire | Liberia | Philippines | Zambia |
| Dominican Republic | Malawi | Senegal | Zimbabwe |

FILED (13) 3.8% PLHCV

| | |
|-------------------|---------------|
| Azerbaijan | Kenya |
| Belarus | Mali |
| Bolivia | Namibia |
| Botswana | Nepal |
| Georgia | Rwanda |
| Haiti | Togo |
| Honduras | |

• New approval in **blue** vis-à-vis last update (Q1-22)

▪ Countries where either DAC 30mg or DAC 60mg have been sold indicated in **bold type**

[^] People living with Hepatitis C

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

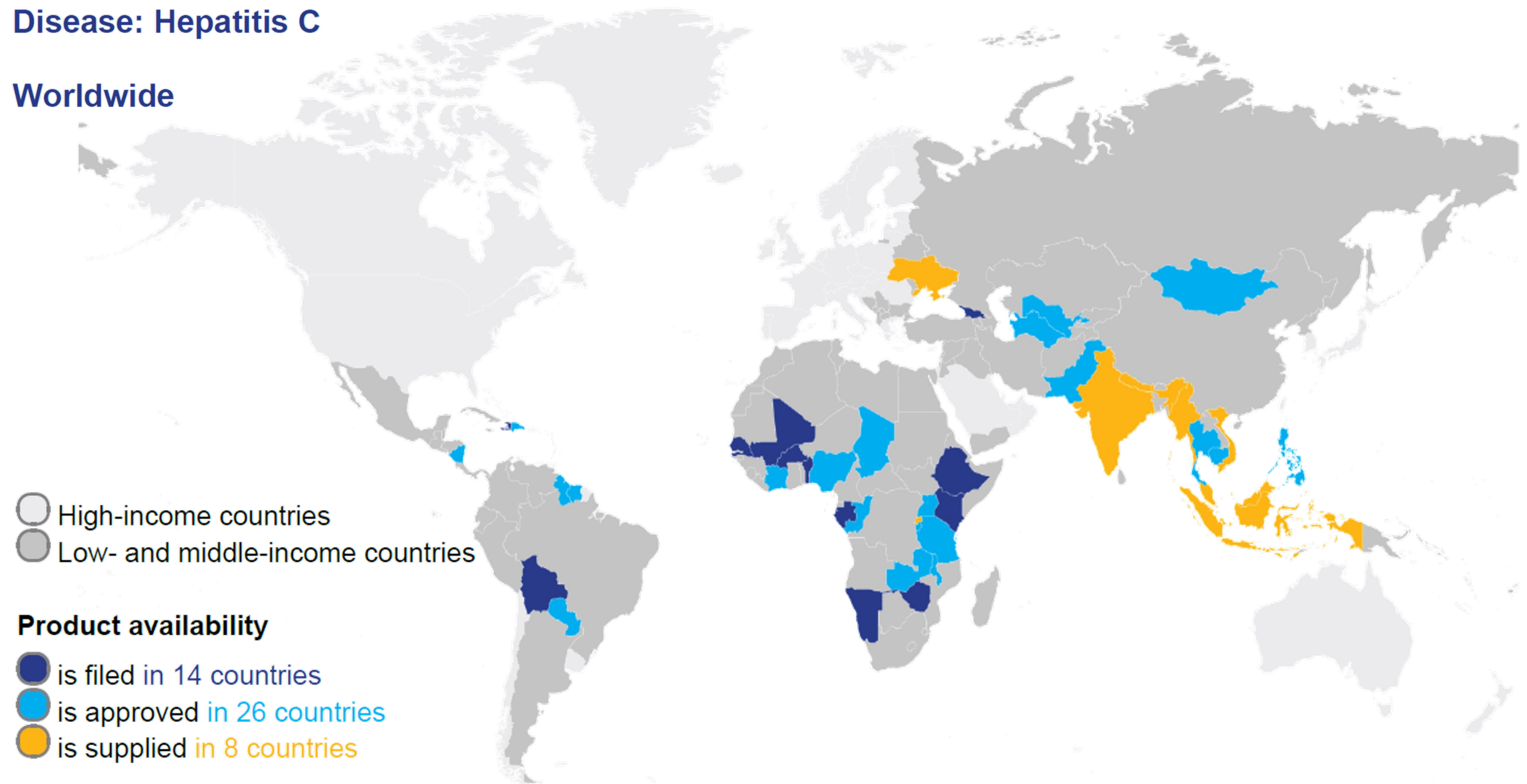
[#] [MPP-BMS DAC licence agreement](#)

MPP licensees have supplied ~**180,000** packs* of generic DAC 30mg across:
India, Indonesia, Malaysia, Myanmar, Nepal, Rwanda, Ukraine, Vietnam

DAC (30 mg)

Disease: Hepatitis C

Worldwide

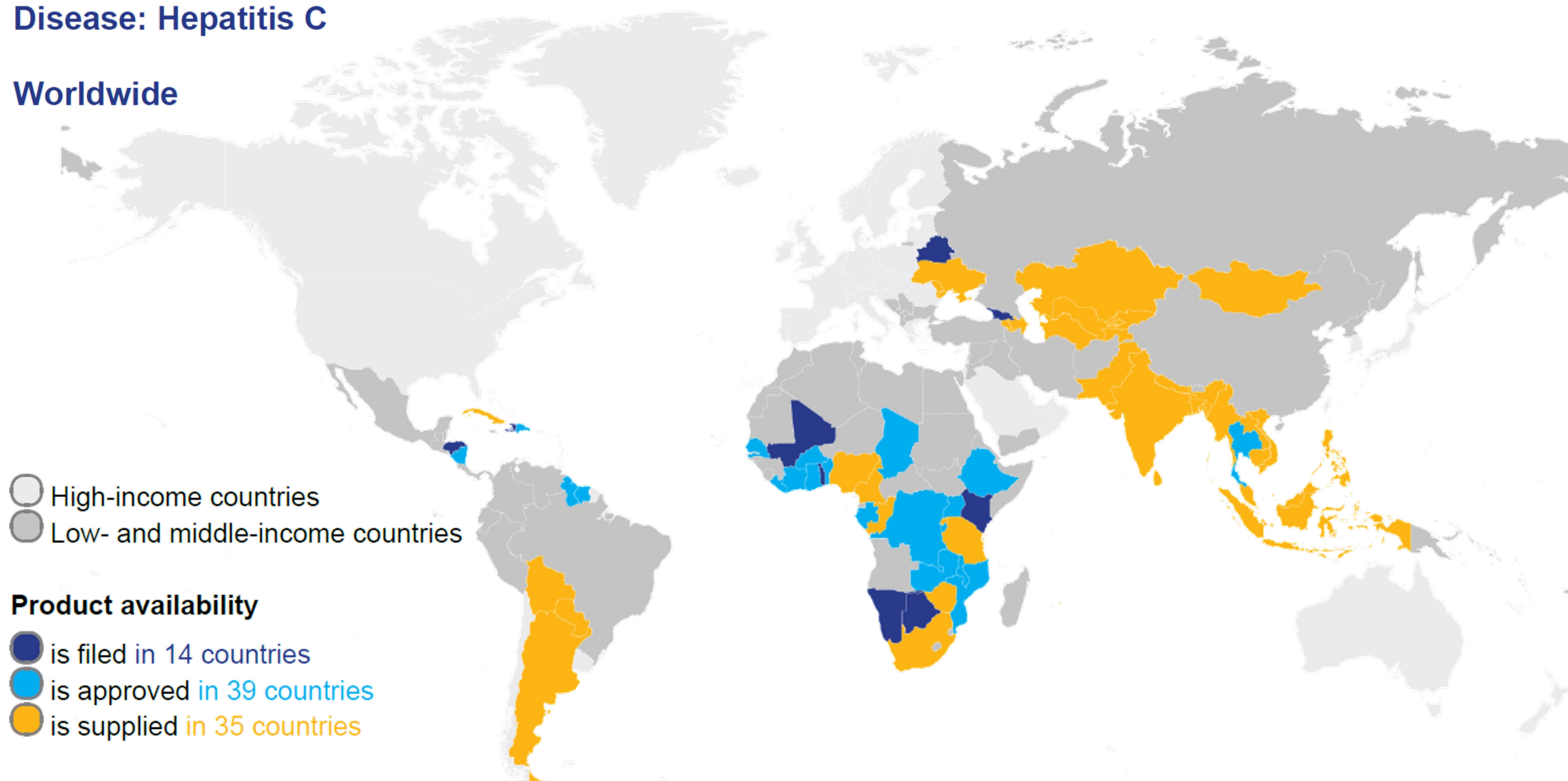


DAC 60mg sales have occurred in **35** countries where MPP licensees have supplied more than **1.2 Million** treatments*, in which **54.1%** of PLHCV[^] reside in the licensed territory[#]

DAC (60 mg)

Disease: Hepatitis C

Worldwide



Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

[^] People living with Hepatitis C

[#] [MPP-BMS DAC licence agreement](#)

*Note: 1 HCV treatment = 12 weeks therapy (3 packs)

DAC/SOF: FORMULATION DEVELOPMENT TIMELINES



 Companies approved

***Note:** Each triangle represents a manufacturer and timelines represent date of filing*

1 MPP LICENSEE (MYLAN) HAS DEVELOPED DAC/SOF AND IS READY TO SUPPLY

Generic DAC/SOF has been filed in **18** countries, of which approval has been received in **14** countries
Filings have occurred where **36.4%** of PLHCV[^] reside in the licensed territory[#]

| APPROVED (14) 31.9% PLHCV | |
|------------------------------|----------------|
| Belarus* | Myanmar |
| Côte d'Ivoire | Nicaragua |
| Ethiopia | Nigeria |
| Ghana | Paraguay |
| India | Suriname |
| Kenya | Uganda |
| Malawi | Zimbabwe |

▪ Countries where DAC/SOF has been sold indicated in **bold type**

*Countries not included in DAC/SOF licence but supply by MPP licensees permitted if no patent is being infringed in that country

[^] People living with Hepatitis

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

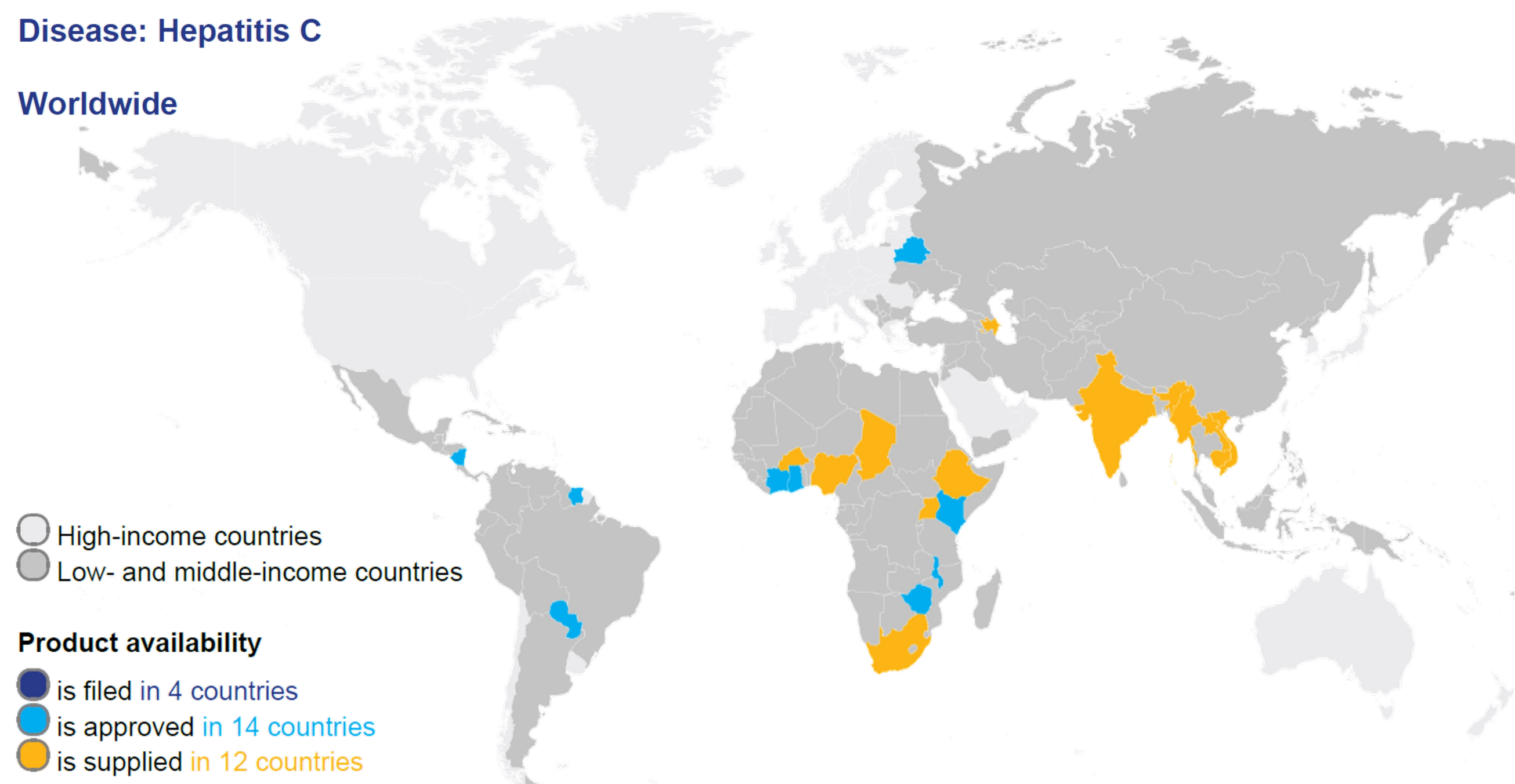
[#] [MPP-BMS DAC licence agreement](#)

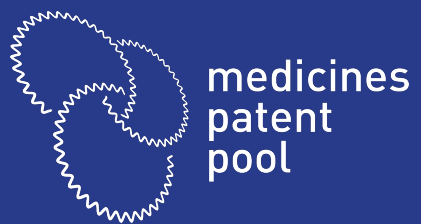
MPP licensees have supplied ~**142,000** packs* of generic DAC/SOF across:
Azerbaijan, Burkina Faso, Cambodia, Chad, Ethiopia, India, Laos, Myanmar, Nigeria, South Africa, Uganda, Vietnam

DAC/SOF (60/400 mg)

Disease: Hepatitis C

Worldwide





THANK YOU