medicines
patent
pool

UPDATE ON PROGRESS OF MPP SUBLICENSEES

TILL JUNE 2024

MEDICINESPATENTPOOL.ORG

SUMMARY

- This presentation showcases the progress made by MPP licensees (generic pharmaceutical companies).
- To date, MPP has signed agreements with 22 patent holders for 13 HIV antiretrovirals, 1 HIV technology platform, 3 hepatitis C direct-acting antivirals, 1 tuberculosis treatment, 4 long-acting technologies, 1 cancer treatment, 3 oral antiviral treatments for COVID-19, 1 post partum haemorrhage medicine and 16 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.

PARTNERSHIPS WITH INNOVATORS ACROSS DIFFERENT DISEASE AREAS

medicines patent pool

CANCER

NOVARTIS

- nilotinib

HIV

abbvie

- lopinavir ritonavir (adults)
- lopinavir ritonavir (paediatrics)

Boehringer Ingelheim

- nevirapine (non-assert)

Bristol-Myers Squibb

- atazanavir

GILEAD

- bictegravir
- cobicistat
- elvitegravir
- emtricitabine
- tenofovir alafenamide
- tenofivir disoproxil

janssen

- darunavir (paediatric; non-assert)

MSD

- raltegravir (paediatric)

NIH

- darunavir related

ViiV Healthcare

- abacavir (paediatrics)
- cabotegravir long-acting (for HIV PrEP)
- dolutegravir (paediatrics)
- dolutegravir (adults)

Roche

- valganciclovir (pricing agreement)

HEPATITIS C

abbvie

- glecaprevir/ pibrentasvir

Bristol-Myers Squibb

- daclastavir

PHARCO PHARMACEUTICALS

- ravidasvir

TUBERCULOSIS

JOHNS HOPKINS UNIVERSITY

Pfizer

- sutezolid

COVID-19

MSD

- molnupiravir

Pfizer

- nirmatrelvir

SHIONOGI

- ensitrelvir fumaric acid

MATERNAL HEALTH

FERRING PHARMACEUTICALS

- Heat-stable carbocetin (conditional license agreement)

TECHNOLOGIES (LONG-ACTING, DIAGNOSTICS)

MedinCell

- mdc-STM (malaria LAI)

UNIVERSITY OF LIVERPOOL

- solid drug nanoparticles technology (disease agnostic)
- ETFD LAI (TB, malaria, HCV)

UNIVERSITY of WASHINGTON

- TLD LAI (HIV)

CSIC

- serological antibody diagnostic test (COVID-19)

medicines patent pool

MPP PARTNERSHIPS WITH GENERICS

HIV

abacavir (paed)
Aurobindo

atazanavir
Aurobindo
Cipla
Desano
Emcure
Mylan

bictegravir
Adcock Ingram
Arene
Aurobindo
Desano
Emcure
Laurus Labs
Lupin
Macleods

cobicistat
Adcock Ingram
Arene
Emcure
Lupin

dolutegravir
Adcock Ingram**
Celltrion**
Cipla **
Desano **
Emcure **
Hetero **
Laurus Labs **
Lupin **
Macleods **
Mangalam
Micro Labs **
Mylan **
Strides**
Sun Pharma **

elvitegravir
Adcock Ingram
Arene

emtricitabine
Adcock Ingram
Aurobindo
Desano
Emcure
Laurus Labs
Lupin
MacLeods
Micro Labs
Natco

Lopinavir, ritonavir
Adcock Ingram
Arene
Aurobindo
Cipla*
Desano
Emcure
Hetero#
Lupin
Sun Pharma

raltegravir / Paed
Lupin

tenofovir alafenamide
Adcock Ingram
Aurobindo
Desano
Emcure
Langhua
Laurus Labs
Lupin
Macleods
Micro Labs
Natco

tenofovir disoproxil fumarate
Adcock Ingram
Arene

Hepatitis C

daclatasavir
Beximco
Cipla
Hetero
Laurus Labs
Mylan
Natco
Zydus

glecaprevir/pibrentasvir
Arene
Mylan
Remington
USV

COVID-19

molnupiravir
Arene
Beximco
Biophore
CPT
Desano
Dongbang
Fosun
Hikma
Incepta
Kimia Farma
Laurus Labs
MSN
Remington
SMS Pharma
Stellapharm
Strides
UCL

nirmatrelvir
Amneal
Apeloa
Arene
Aurisco
Aurobindo
Biocon
Cadila
Celltrion
Cipla
Darnitsa
Desano
Divis
Dr. Reddy's
Dongbang
Emcure
Fosun Pharma
Glenmark
Granules
Hetero
Hikma
Huahai
Jiuzhou
Laurus Labs
Macleods
Magnachem
MSN
Mylan
Neolpharma
Remington
SMS Pharma
Strides
Sun Pharma
Torrent
FHI Zdravlje

ensitrelvir
Charioteer
Fosun
Hetero
Laurus Labs
Lekhim
Lepu
Stellapharm

Tuberculosis

sutezolid / John Hopkins University
TB Alliance

sutezolid / Pfizer
Bill & Melinda Gates Foundation

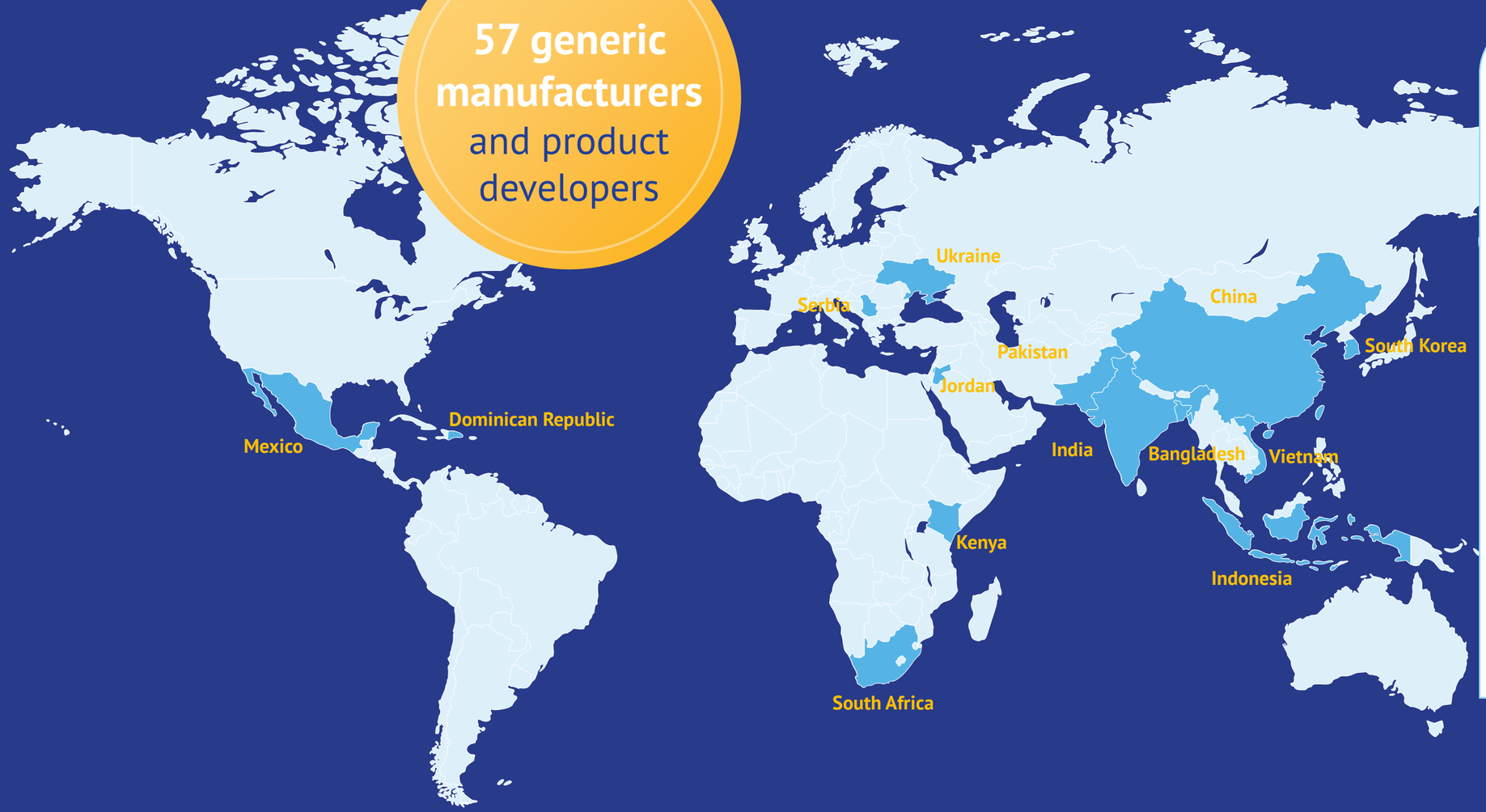
Cancer

nilotinib
BrightGene
Dr. Reddy's
Eugia
Hetero

* Only LPV/r paed licence #Also has LPV/r paed licence ** Also have DTG paed licence

MPP'S NETWORK OF MANUFACTURERS AND PRODUCT DEVELOPERS ARE IN 14 COUNTRIES

57 generic manufacturers and product developers



Bangladesh
Beximco
Incepta

China
Apeloa
Aurisco
BrightGene
Charioteer
Desano
Fosun
Jiuzhou
Huahai
Langhua
Lepu

Dominican Republic
Magnachem

India
Amneal
Arene
Aurobindo
Biocon
Biophore
Cadila
Cipla
Divi's
Dr Reddy's
Emcure
Eugia
Glenmark
Granules
Hetero
Laurus
Lupin
Macleods
Mangalam
Micro Labs
MSN
Natco
SMS Pharma
Strides
Sun
Torrent
USV
Viatris
Zydus Cadila

Indonesia
Kimia Farma

Jordan
Hikma

Kenya
UCL

Mexico
Neolpharma

Pakistan
Remington

Serbia
FHI Zdravlje

South Africa
Adcock Ingram
CPT

South Korea
Celltrion
Dongbang

Ukraine
Darnitsa
Lekhim

Vietnam
Stella

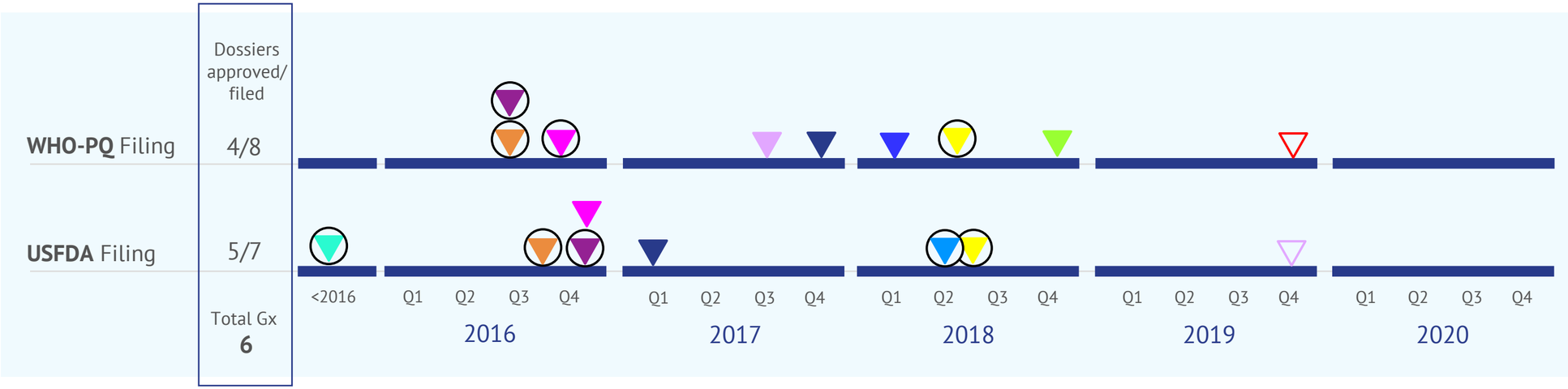
Product developers*
TB Alliance
Gates MRI
Biotech Africa

*Not generic manufacturers

TRIANGLE CHARTS

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

TRIANGLE CHARTS: A SNAPSHOT

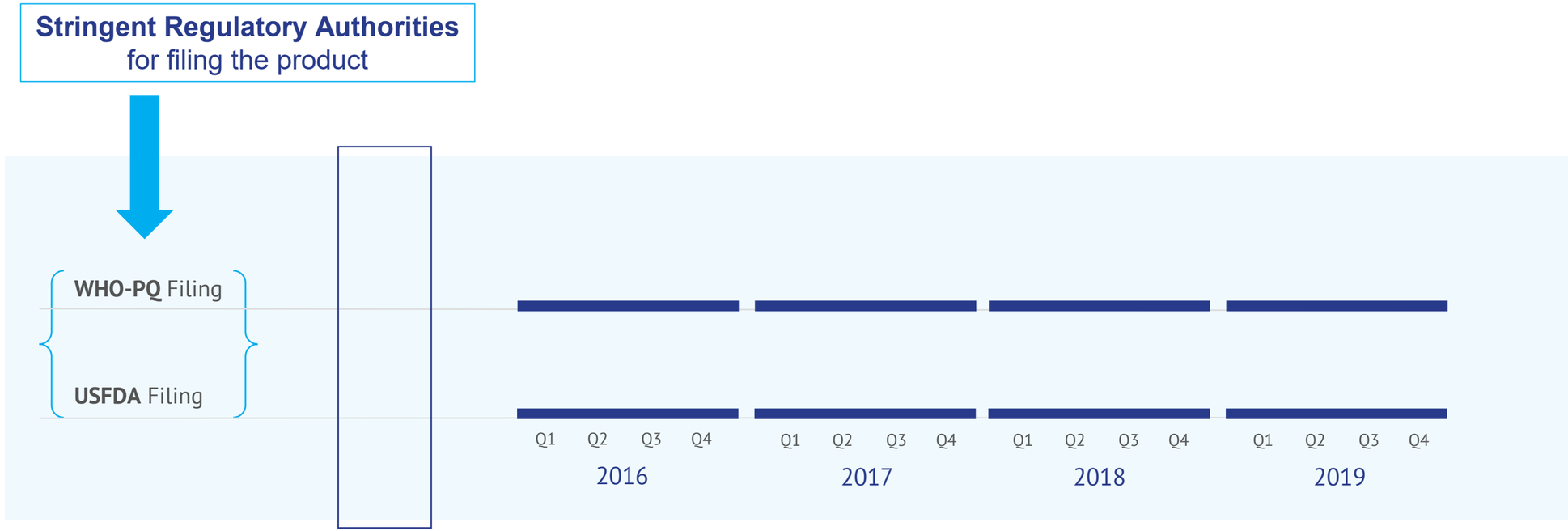


Companies approved ▼ Companies filed ▽ Companies planning to file

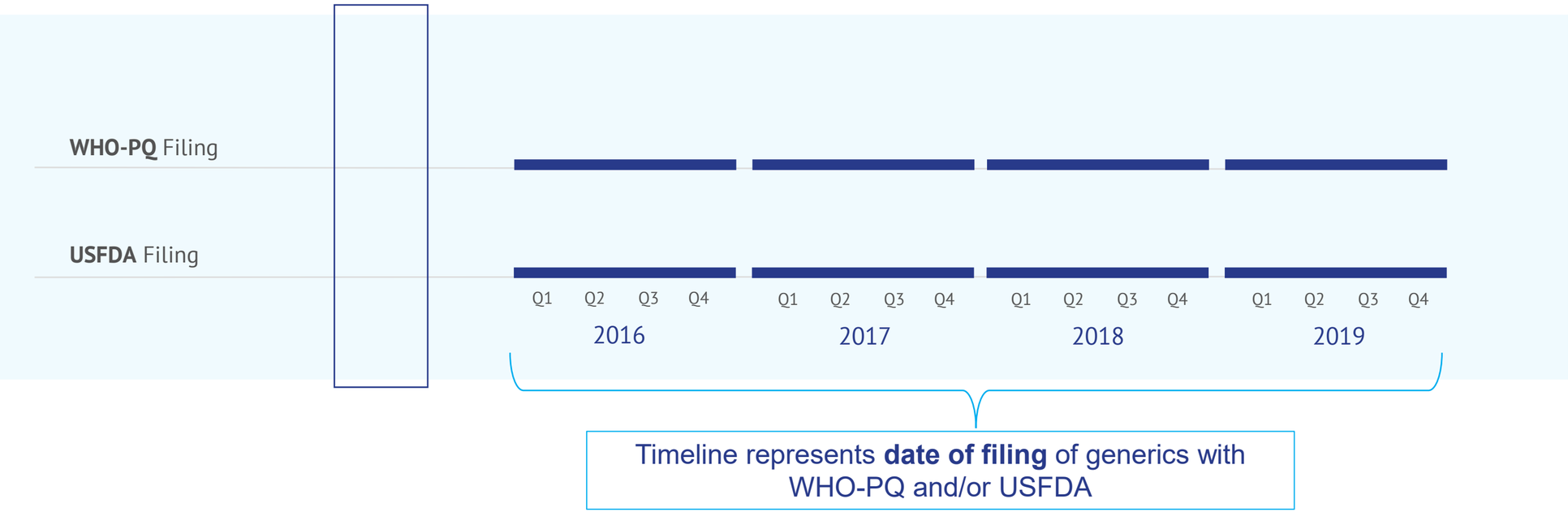
Note: *Each triangle represents a manufacturer and timelines represent date of filing*

See following slides for explanation

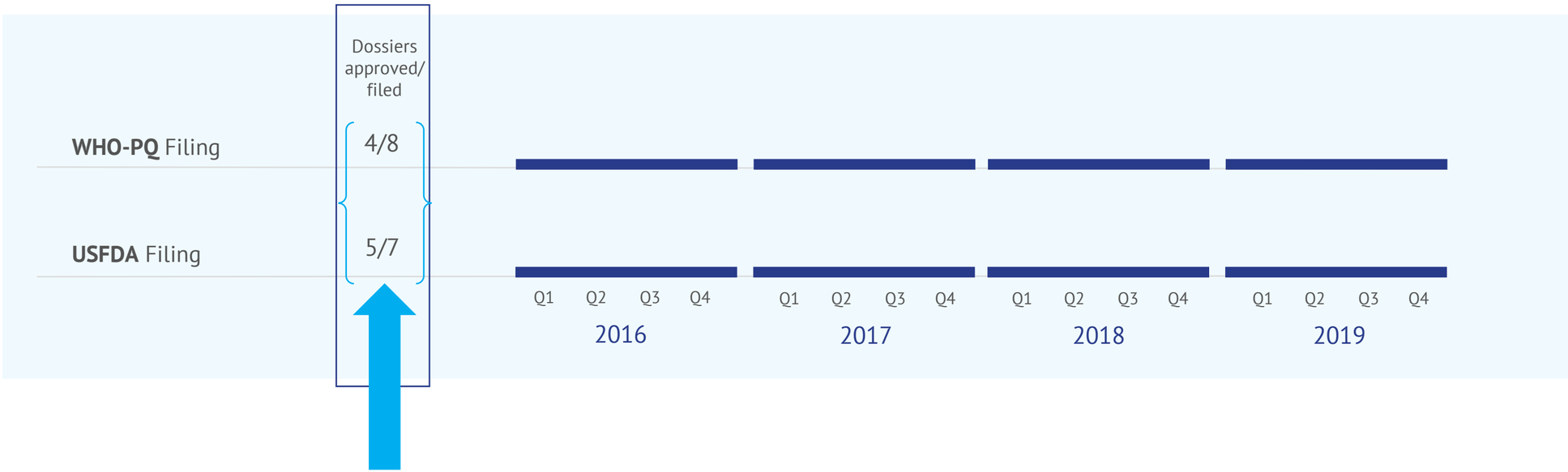
TRIANGLE CHARTS EXPLAINED (1/7)



TRIANGLE CHARTS EXPLAINED (2/7)

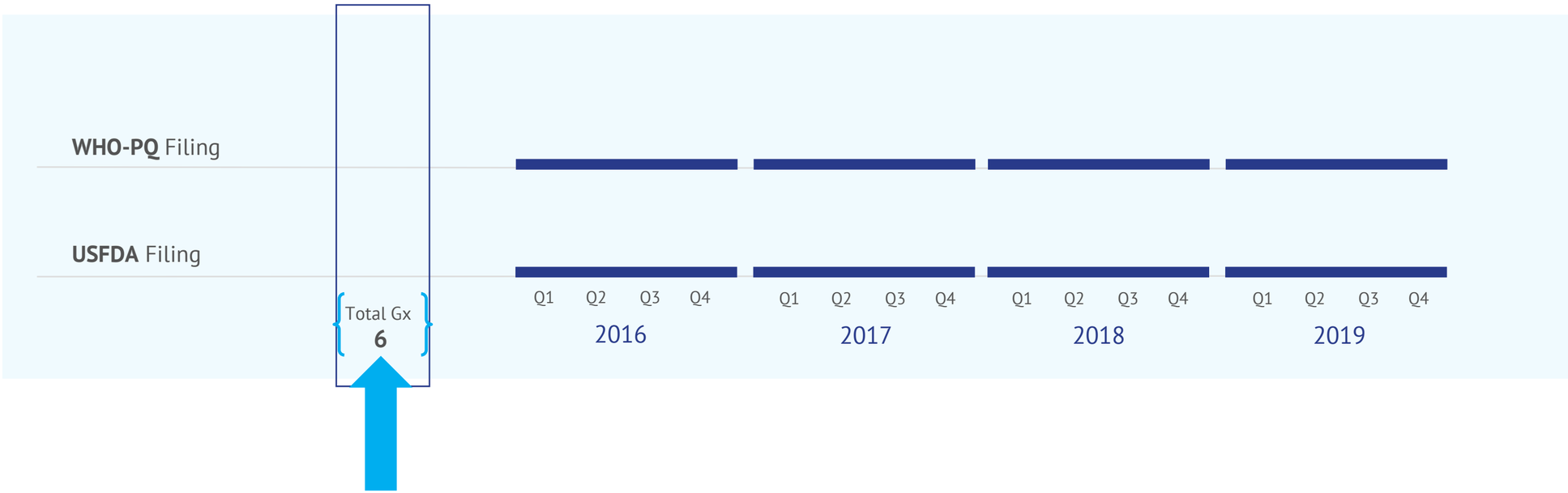


TRIANGLE CHARTS EXPLAINED (3/7)



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

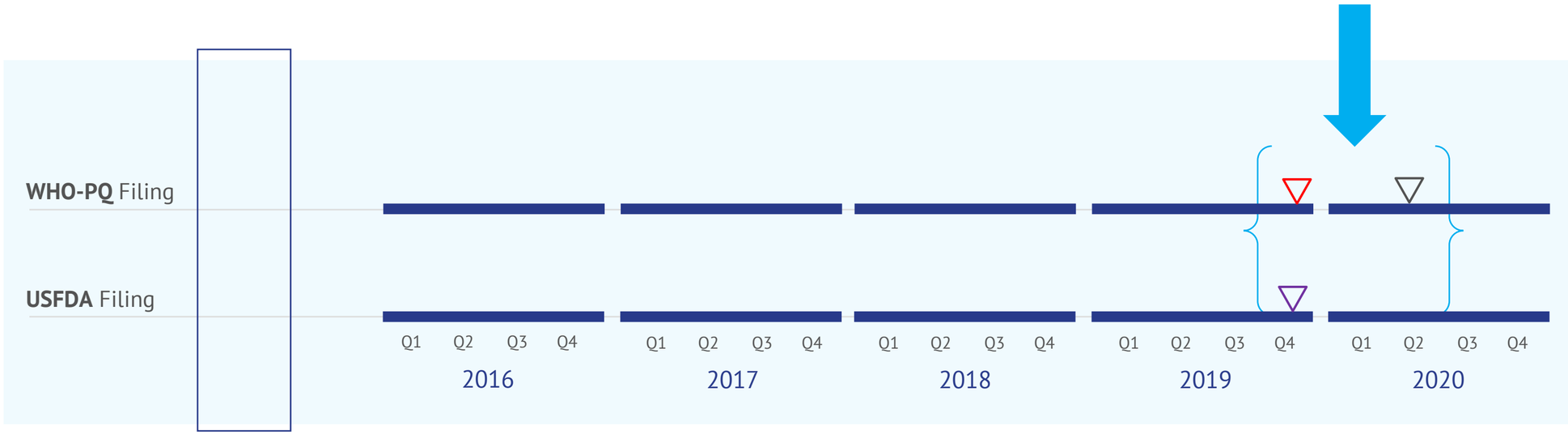
TRIANGLE CHARTS EXPLAINED (4/7)



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

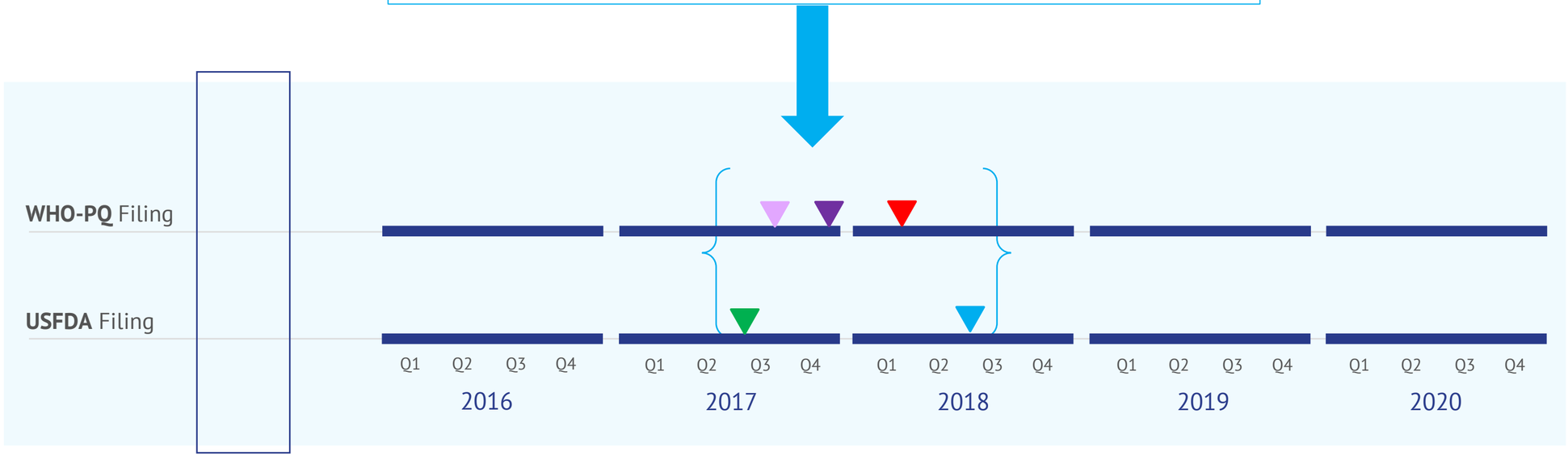


▽ Companies planning to file

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

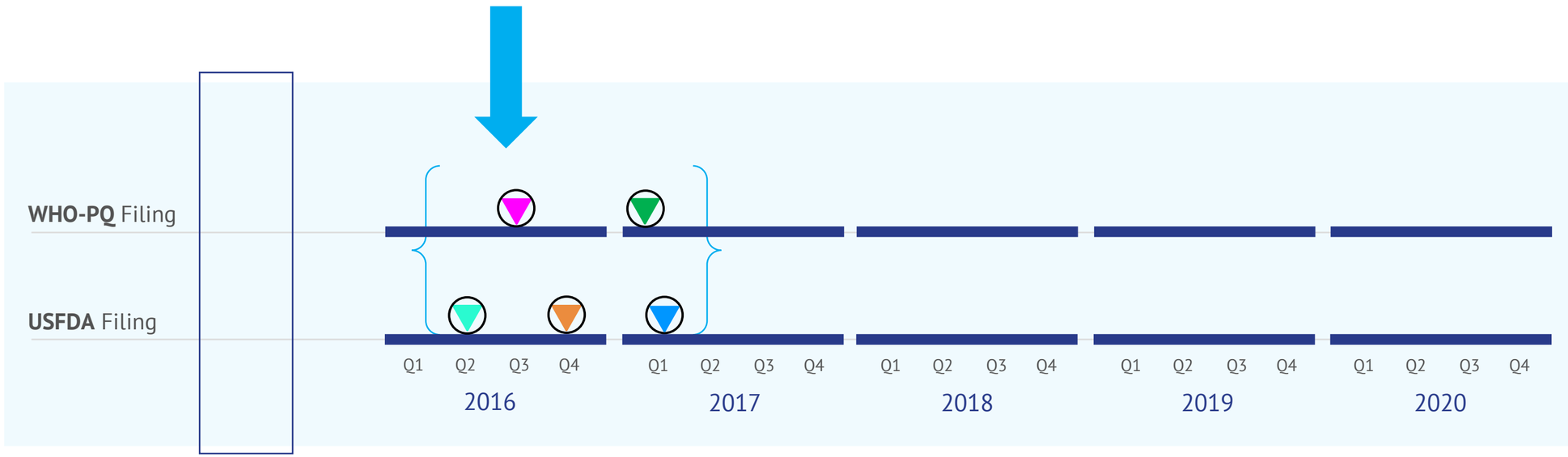


▼ Companies filed

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

CURRENT SUBLICENSEES FOR VIIV-MPP DOLUTEGRAVIR LICENCE

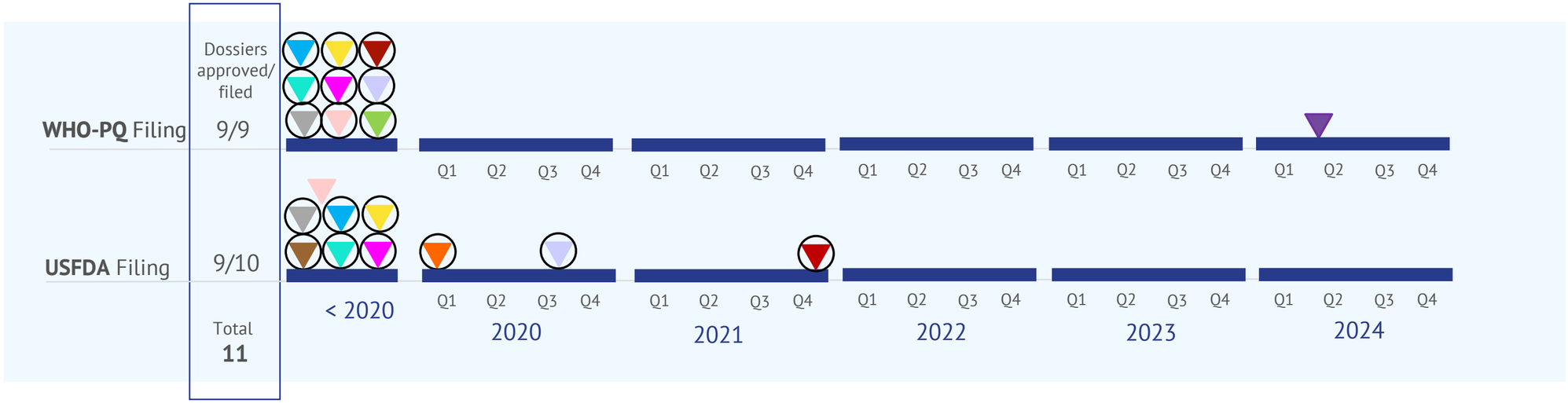
14 Dolutegravir Sub-licensee Agreements

adcock ingram
Cipla
CELLTRION
DESANO
Emcure
SUCCESS THROUGH INNOVATION
HETERO
LAURUS Labs
Knowledge . Innovation . Excellence
LUPIN
MACLEODS
MANGALAM
MICRO LABS LIMITED
Mylan
Strides
SUN PHARMA

*Aurobindo is a direct licensee of ViiV. A tripartite agreement Aurobindo-ViiV-MPP has been signed. For the purposes of this presentation only, data from Aurobindo will be included in the presentation.

Note: the following presentation contains updates as of June 2024, however approvals through September 2024 are included.

DTG 50MG:
FORMULATION DEVELOPMENT TIMELINES



Companies approved ▼ Companies filed

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

11 MPP LICENSEES HAVE DEVELOPED DTG 50MG AND ALL ARE READY TO COMMERCIALIZE THE PRODUCT

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

1 licensee awaiting USFDA approval | 1 licensee awaiting WHO-PQ approval

*USFDA and/or WHO-PQ

Data as of June 2024

medicines patent pool

DTG 50MG: COUNTRY WISE FILING STATUS

Generic DTG 50mg has been filed in **76** countries, which contribute to an effective coverage of **93.6%** PLHIV^

APPROVED (64) 90.8% PLHIV

Anguilla*	Bhutan	Congo	Grenada	Kyrgyzstan	Myanmar	Philippines	Turkmenistan
Antigua and Barbuda*	Botswana	Congo, DR	Guatemala	Madagascar	Namibia	Rwanda	Turks and Caicos Islands*
Armenia	Burkina Faso	Costa Rica*	Honduras	Malawi	Nicaragua	Saint Lucia*	Uganda
Azerbaijan	Burundi	Côte d'Ivoire	India	Malaysia	Niger	Saint Vincent and the Grenadines*	Ukraine
Bahamas*	Cambodia	Dominica*	Indonesia	Mauritius	Nigeria	South Africa	Uruguay*
Barbados*	Cameroon	Ecuador	Iran*	Moldova	Pakistan	Tajikistan	Uzbekistan
Belarus	Chad	Ethiopia	Kazakhstan	Montserrat*	Panama*	Tanzania	Zambia
Benin	Chile*	Ghana	Kenya	Mozambique	Peru*	Thailand*	Zimbabwe

FILED (12) 2.8% PLHIV

Angola	Guyana	Oman
Bolivia	Jamaica	Senegal
Dominican Republic*	Mali	Sri Lanka
El Salvador	Morocco	Viet Nam

- New filings and approvals in green *vis-à-vis last update (Q4-23)*
- 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

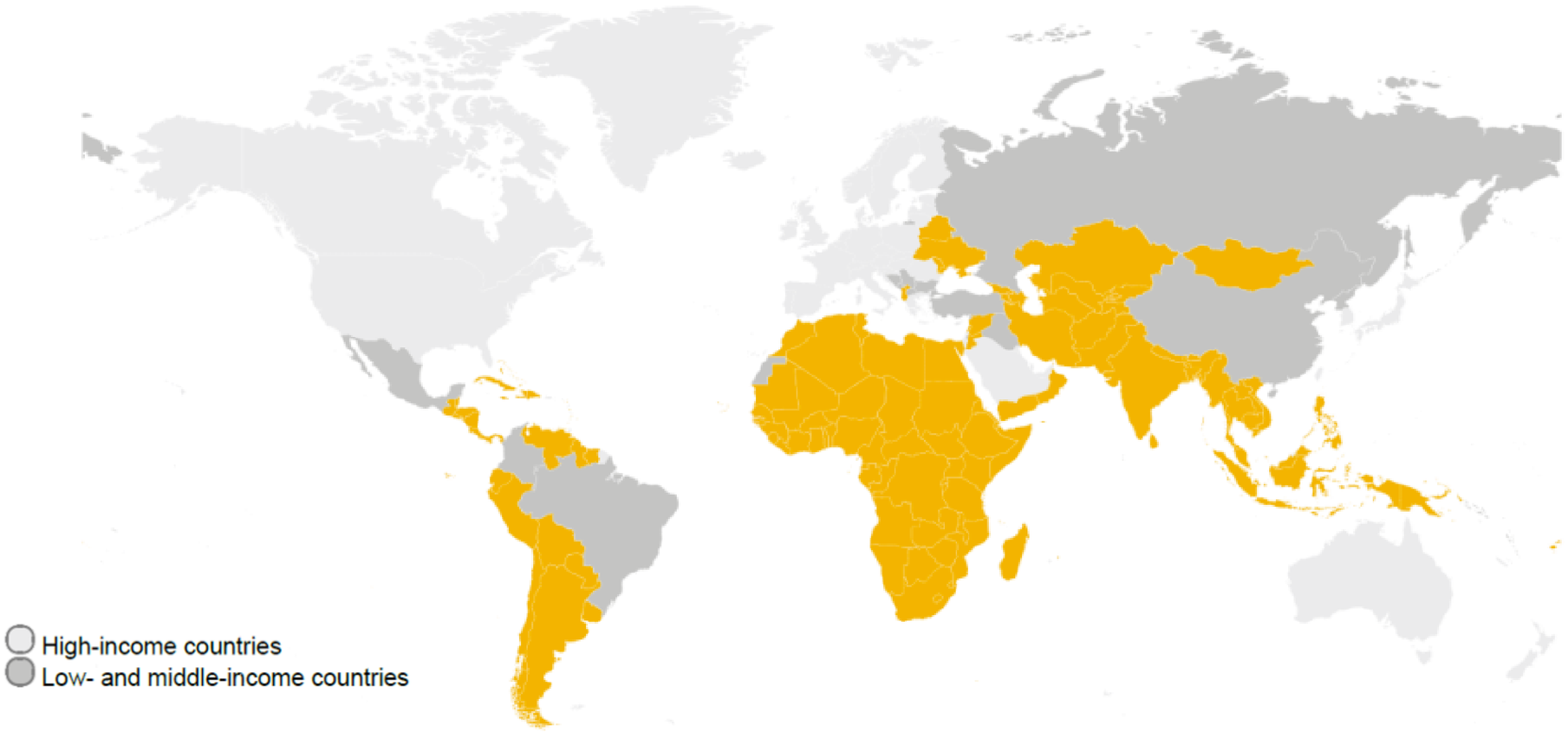
^ People living with HIV (2023) in the licensed territory (refer MPP-ViiV DTG licence agreement and MPP-ViiV DTG UMIC licence) and countries with no patent infringements

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

Data as of June 2024

DTG 50mg Impact Map

Generic DTG 50mg sales have occurred in 127 countries in which 99.9% of PLHIV^ reside



FILED IN **12** COUNTRIES

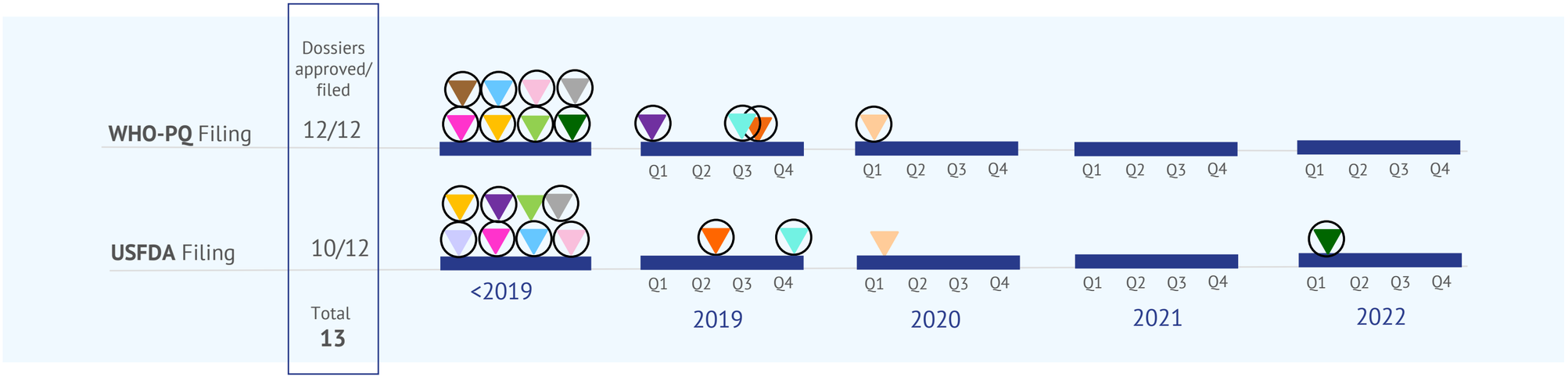
APPROVED IN **64** COUNTRIES

SUPPLIED IN **127** COUNTRIES

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions
^ People living with HIV (2023) in the licensed territory and countries with no patent infringements
#For licensed territory, refer:
MPP-ViiV DTG adult licence
MPP-ViiV DTG UMIC licence

Data as of June 2024

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 AND ALL 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 USFDA approval

*USFDA and/or WHO-PQ

Data as of June 2024

TDF/3TC/DTG has been filed in 85 countries which contribute to an effective coverage of 95.3% PLHIV^

TDF/3TC/DTG (TLD): COUNTRY WISE FILING STATUS

APPROVED (71)
91.7% PLHIV

Anguilla*	**Bhutan**	**Congo, DR**	**Guatemala**	**Madagascar**	**Myanmar**	Saint Kitts and Nevis	**Turkmenistan**
Antigua and Barbuda*	**Botswana**	**Côte d'Ivoire**	**Guyana**	**Malawi**	**Namibia**	**Saint Lucia***	**Turks and Caicos Islands***
Armenia	**Burkina Faso**	Dominica*	**Haiti**	**Malaysia**	**Nepal**	Saint Vincent and the Grenadines*	**Uganda**
Azerbaijan	**Burundi**	**Eritrea**	**India**	**Mali**	**Niger**	**Senegal**	**Ukraine**
Bahamas*	**Cambodia**	**Ethiopia**	**Indonesia**	**Mauritania**	**Nigeria**	**South Africa**	**Uzbekistan**
Barbados*	**Cameroon**	**Gabon**	**Jamaica**	Mauritius	**Panama**	**Suriname**	**Viet Nam**
Belarus	**Chad**	**Gambia**	**Kazakhstan**	**Moldova**	**Peru***	**Tajikistan**	**Zambia**
Belize	**Chile***	**Ghana**	**Kenya**	Montserrat*	**Philippines**	**Tanzania**	**Zimbabwe**
Benin	**Congo**	**Grenada***	**Kyrgyzstan**	**Mozambique**	**Rwanda**	**Thailand**	

FILED (14)
3.7% PLHIV

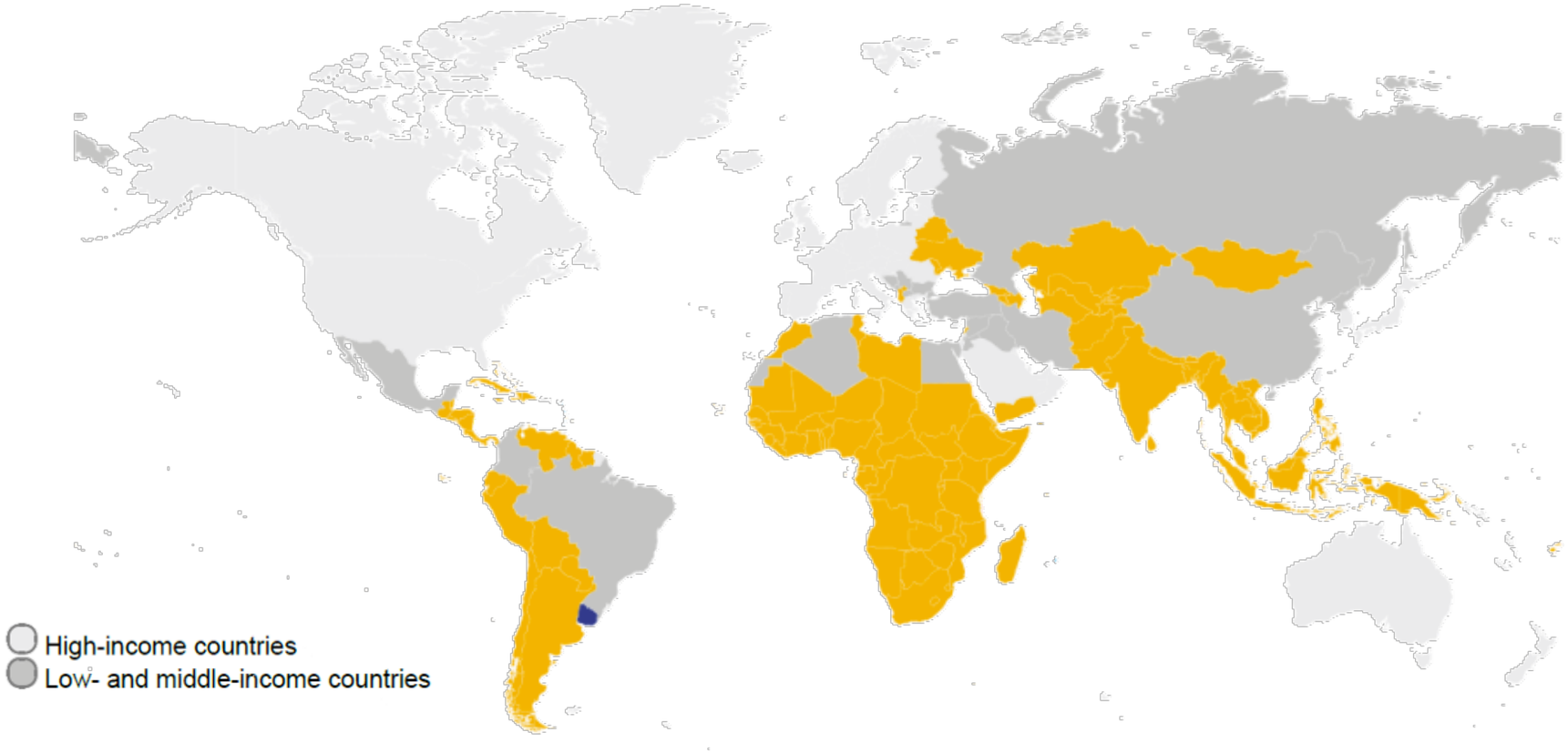
Angola	**Guinea**	**Sierra Leone**	**Togo**
Costa Rica*	**Lebanon**	South Sudan	Uruguay*
Dominican Republic	**Morocco**	**Sri Lanka**	
El Salvador	**Pakistan**	**Sudan**	

New filings and approvals in green *vis-à-vis last update (Q4-23)*
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 (2023) in the licensed territory (refer MPP-ViiV DTG licence agreement and MPP-ViiV DTG UMIC licence) and countries with no patent infringements
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

TLD Impact Map

Generic TLD sales have occurred in 110 countries in which 99.5% of PLHIV^ reside



FILED IN **14** COUNTRIES

APPROVED IN **71** COUNTRIES

SUPPLIED IN **110** COUNTRIES

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions
^ People living with HIV (2023) in the licensed territory and countries with no patent infringements
#For licensed territory, refer:
MPP-ViiV DTG adult licence
MPP-ViiV DTG UMIC licence

Data as of June 2024

COUNTRIES OF SALE OF DTG BASED TREATMENTS (2017- JUNE 2024)

COUNTRIES OF SALE (128)					
Afghanistan	Cabo Verde	Fiji	Lebanon	Oman	Syrian Arab Republic
Albania	Cambodia	Gabon	Lesotho	Pakistan	Tajikistan
Algeria	Cameroon	Gambia	Liberia	Panama	Tanzania
Angola	Central African Republic	Georgia	Libya	Papua New Guinea	Thailand
Anguilla	Chad	Ghana	Madagascar	Paraguay	Timor-Leste
Antigua and Barbuda	Chile	Grenada	Malawi	Peru	Togo
Argentina	Comoros	Guatemala	Malaysia	Philippines	Tunisia
Armenia	Congo	Guinea	Mali	Rwanda	Turkmenistan
Azerbaijan	Congo, DR	Guinea-Bissau	Mauritania	Saint Kitts and Nevis	Turks and Caicos Islands
Bahamas	Costa Rica	Guyana	Mauritius	Saint Lucia	Uganda
Bangladesh	Côte d'Ivoire	Haiti	Micronesia	Saint Vincent and the Grenadines	Ukraine
Barbados	Cuba	Honduras	Moldova	Sao Tome and Principe	Uruguay
Belarus	Djibouti	India	Mongolia	Senegal	Uzbekistan
Belize	Dominica	Indonesia	Montserrat	Seychelles	Venezuela
Benin	Dominican Republic	Iran	Morocco	Sierra Leone	Vietnam
Bermuda	Ecuador	Jamaica	Mozambique	Somalia	Yemen
Bhutan	Egypt	Jordan	Myanmar	South Africa	Zambia
Bolivia	El Salvador	Kazakhstan	Namibia	South Sudan	Zimbabwe
Botswana	Equatorial Guinea	Kenya	Nepal	Sri Lanka	-
British Virgin Island	Eritrea	Kosovo	Nicaragua	State of Palestine	-
Burkina Faso	Eswatini	Kyrgyzstan	Niger	Sudan	-
Burundi	Ethiopia	Lao	Nigeria	Suriname	-

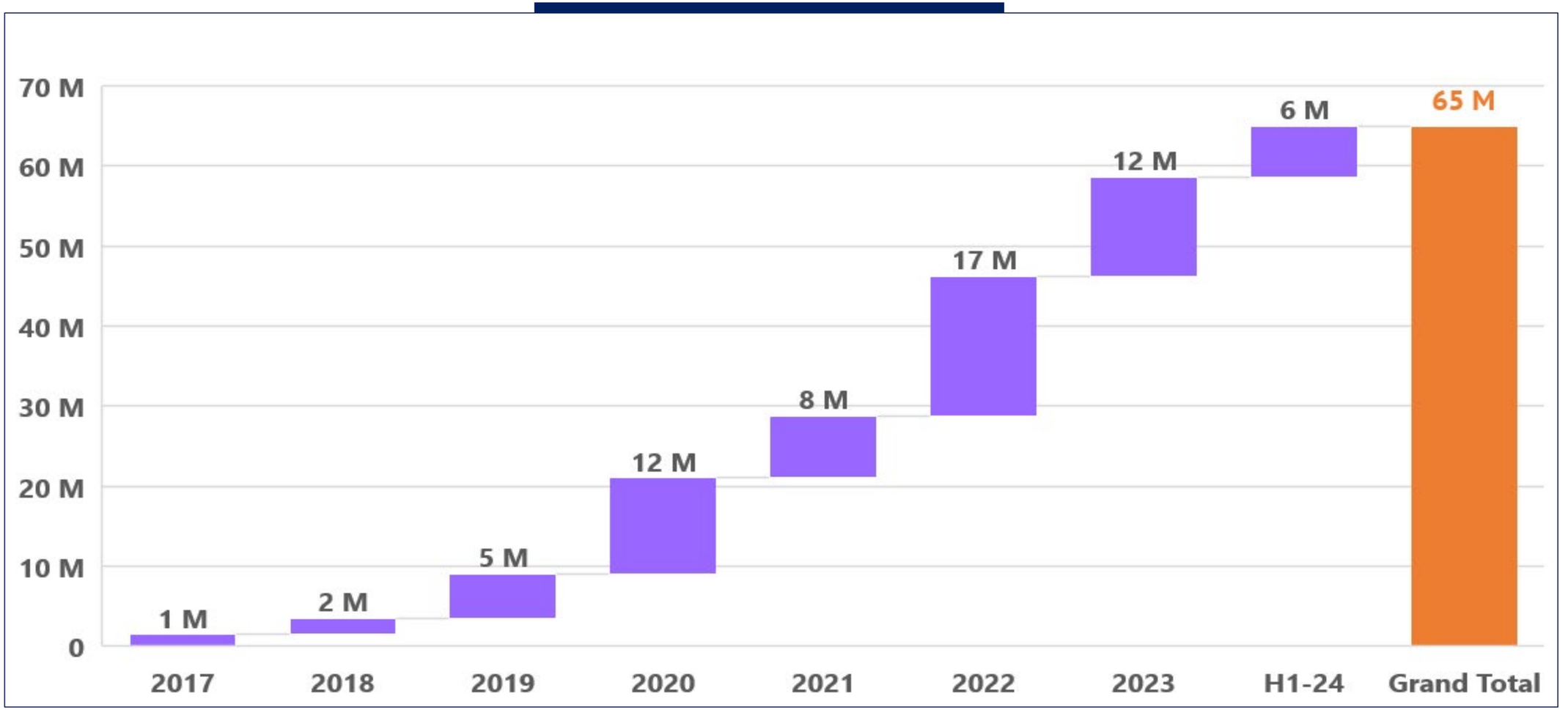
Analysis includes sales DTG 50mg, TLD, ALD Adult and Paeds, TAF-ED, TAF-LD, DTG/3TC, DTG/RPV, DTG 10mg DT

Sale of only TLD

Sale of only DTG 50mg

CUMULATIVE PACKS SOLD: DTG 50MG (2017 to H1-24)

65 million packs of DTG 50mg sold till June 2024



Source: confidential sales data by MPP licensees

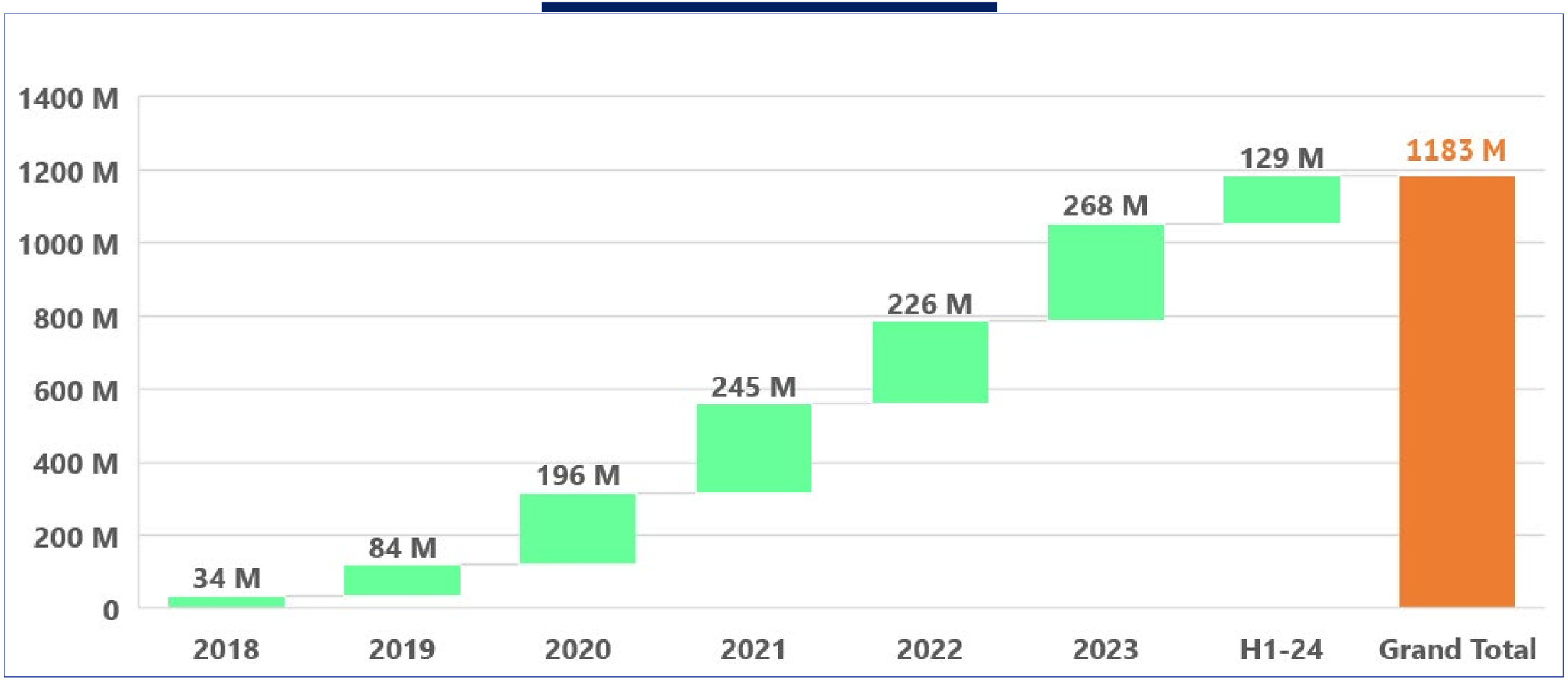
DTG 50mg Total Packs

Note: Packs of 28's, 90's & 180's converted to 30's for this analysis

Data as of June 2024

CUMULATIVE PACKS SOLD: TLD (2018 to H1-24)

1.18 billion packs of TLD sold till June 2024



Source: confidential sales data by MPP licensees

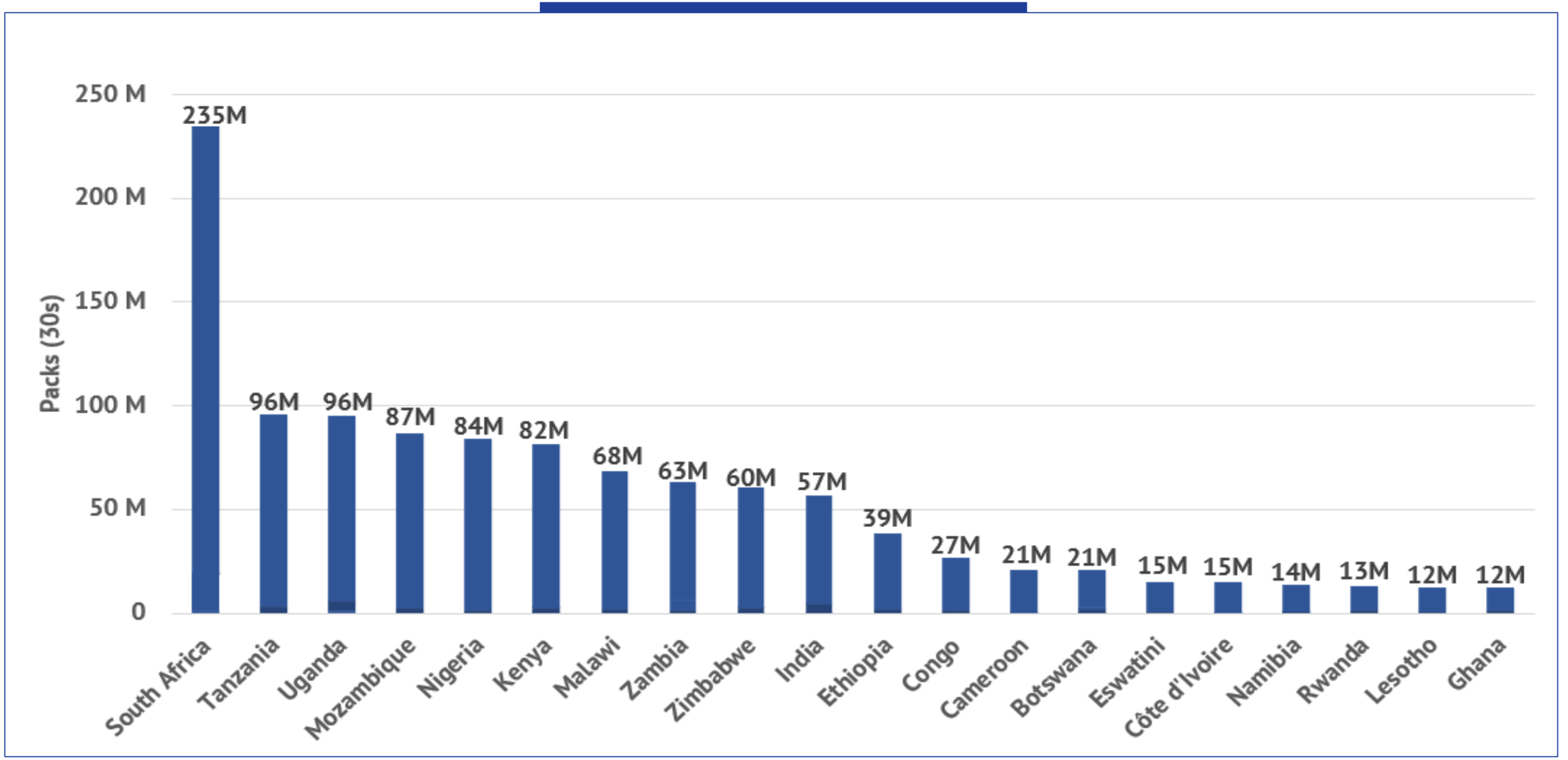
TLD Total Packs

Note: Packs of 28's, 90's & 180's converted to 30's for this analysis

Data as of June 2024

TOP COUNTRY RECIPIENTS OF DTG BASED TREATMENTS (2017 to H1-24)

Top 20 countries receiving DTG based treatments



Source: confidential sales data by MPP licensees

Note: Packs of 28's, 90's & 180's converted to 30's for this analysis

Analysis includes sales DTG 50mg, TLD, ALD Adult, TAF-ED, TAF-LD, DTG/3TC, DTG/RPV

Data as of June 2024

ABC/3TC/DTG ADULT (ALD): 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, OF WHICH: 2 ARE READY TO COMMERCIALIZE

Licensees Approved: Aurobindo, Laurus

4 licensees awaiting USFDA approval

Data as of June 2024

medicines patent pool

ABC/3TC/DTG (ALD): COUNTRY WISE FILING STATUS

ABC/3TC/DTG has been filed in 35 countries

APPROVED (21)

Botswana	Ghana	Malawi	Rwanda	**Ukraine**	Zimbabwe
Cambodia	**India**	Mozambique	**South Africa**	**Uruguay***	
Congo, DR	**Kazakhstan**	Myanmar	Tanzania	Uzbekistan	
Gabon	**Kenya**	**Namibia**	**Uganda**	Zambia	

FILED (14)

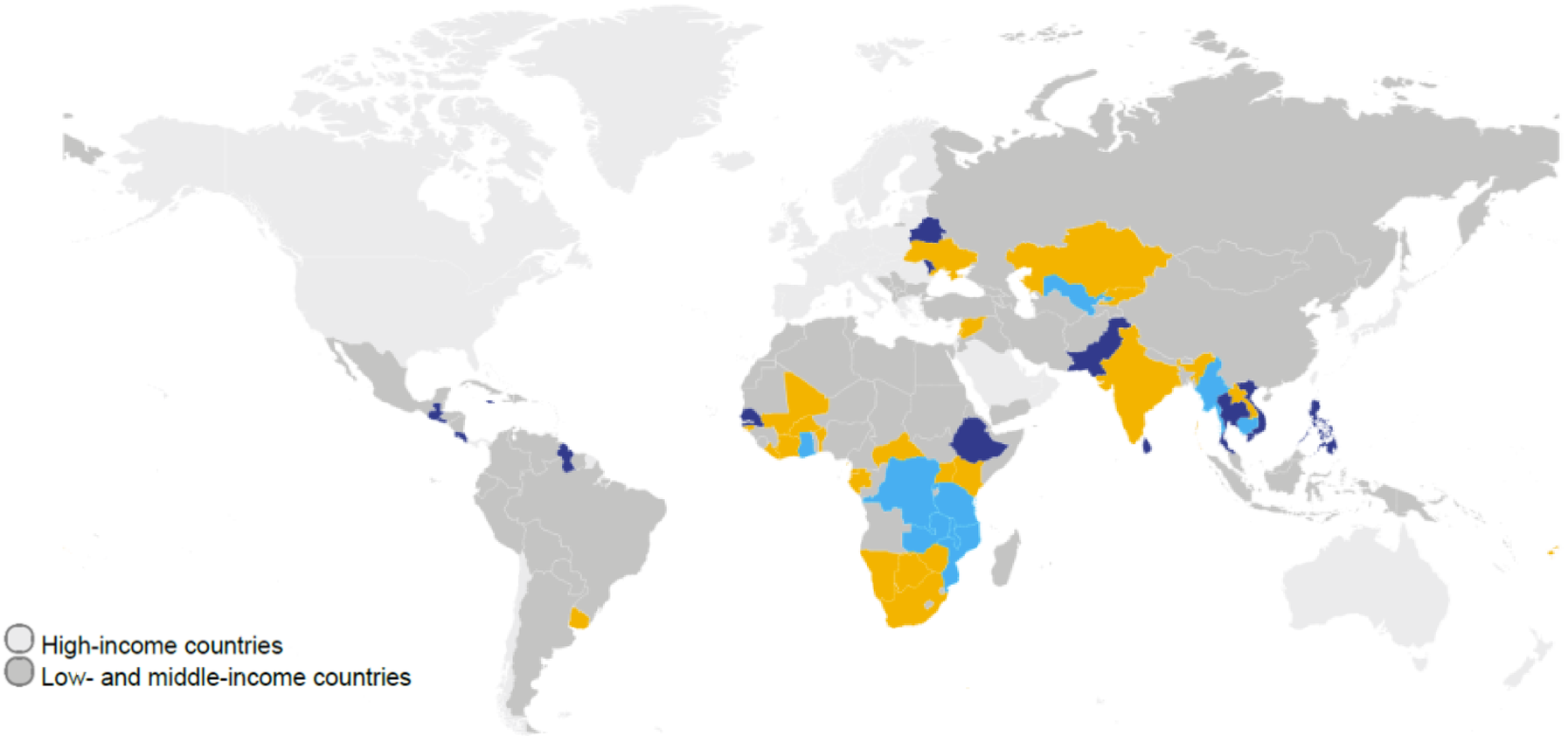
Belarus	Guatemala	Pakistan	Thailand
Costa Rica*	Guyana	Philippines	Viet Nam
El Salvador	Jamaica	Senegal	
Ethiopia	Moldova	Sri Lanka	

New filings and approvals in green *vis-à-vis last update (Q4-23)*
Countries where ALD 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
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

ALD Adult Impact Map

ALD Adult sales have occurred in 24 countries



FILED IN **14** COUNTRIES

APPROVED IN **21** COUNTRIES

SUPPLIED IN **24** COUNTRIES

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

Data as of June 2024

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

Companies approved | Companies filed | Companies planning to file

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

7 MPP LICENSEES HAVE DEVELOPED TAF/FTC/DTG FORMULATION, OF WHICH: 5 ARE READY TO COMMERCIALIZE

Licensees Approved: Aurobindo, Hetero, Laurus, Lupin, Mylan

2 licensees awaiting USFDA approval | 3 additional licensee developing

Data as of June 2024

TAF/FTC/DTG has been filed in 41 countries which contribute to an effective coverage of 91.8% of PLHIV^

TAF/FTC/DTG (TAF-ED): COUNTRY WISE FILING STATUS

APPROVED (27)
85% PLHIV

Botswana	Ethiopia	**Kenya**	Nigeria	**Ukraine**
Burkina Faso	Gabon	Kyrgyzstan	**Philippines**	**Zambia**
Cambodia	Ghana	Malawi	**South Africa**	**Zimbabwe**
Cameroon	**Guatemala**	Mozambique	Tanzania	
Congo	**India**	**Myanmar**	**Thailand**	
Congo, DR	Kazakhstan	**Namibia**	**Uganda**	

FILED (14)
6.8% PLHIV

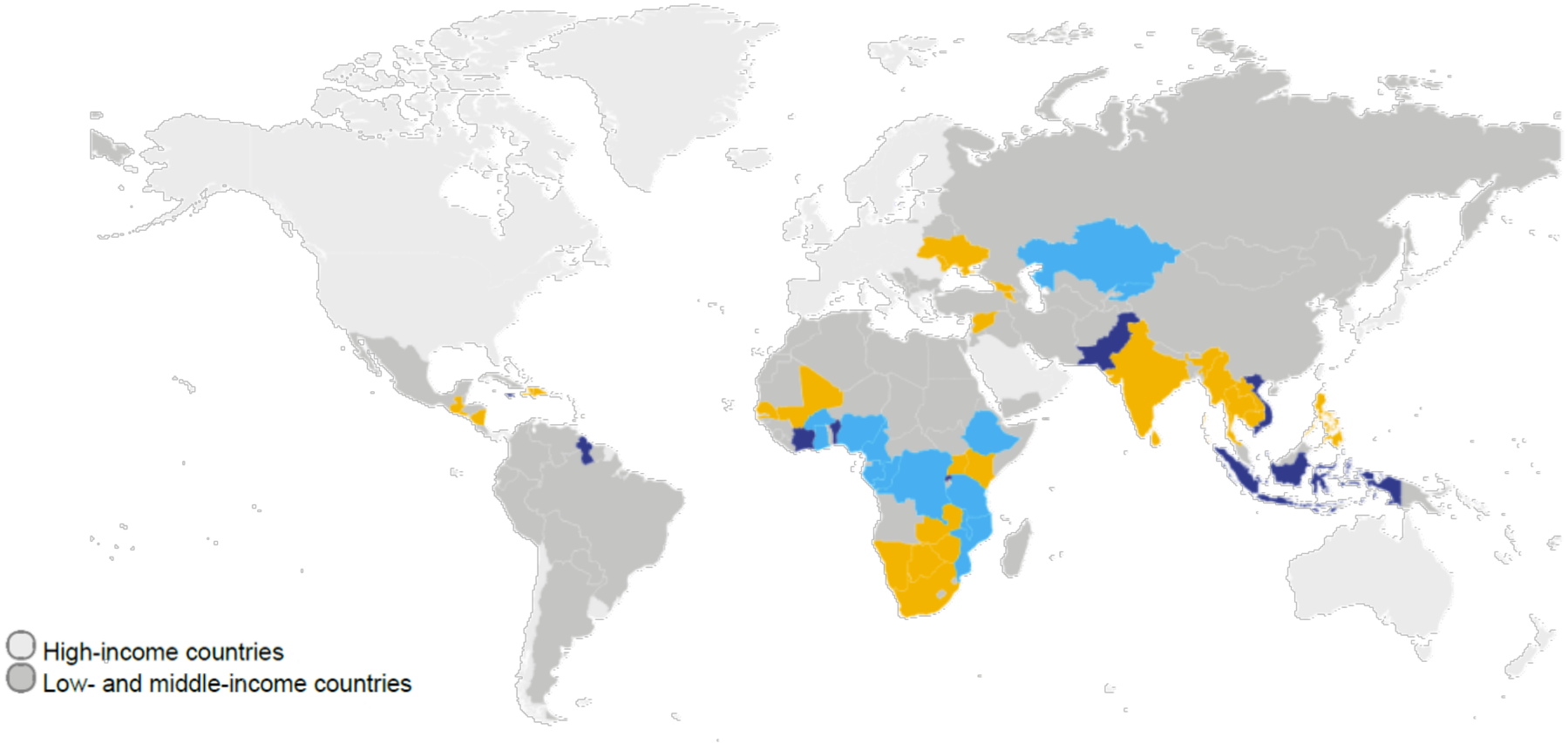
Benin	Guyana	**Moldova**	**Sri Lanka**
Côte d'Ivoire	Indonesia	Pakistan	Viet Nam
Dominican Republic	Jamaica	Rwanda	
El Salvador	**Mali**	**Senegal**	

New filings and approvals in green *vis-à-vis last update (Q4-23)*
Countries where TAF-ED has been sold indicated in **bold type**
^ People living with HIV (2023) in the licensed territory (refer MPP-Gilead TAF licence agreement)
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

TAF/FTC/DTG Impact Map

TAF-ED sales have occurred in 27 countries in which 57.6% of PLHIV^ reside



FILED IN **14** COUNTRIES

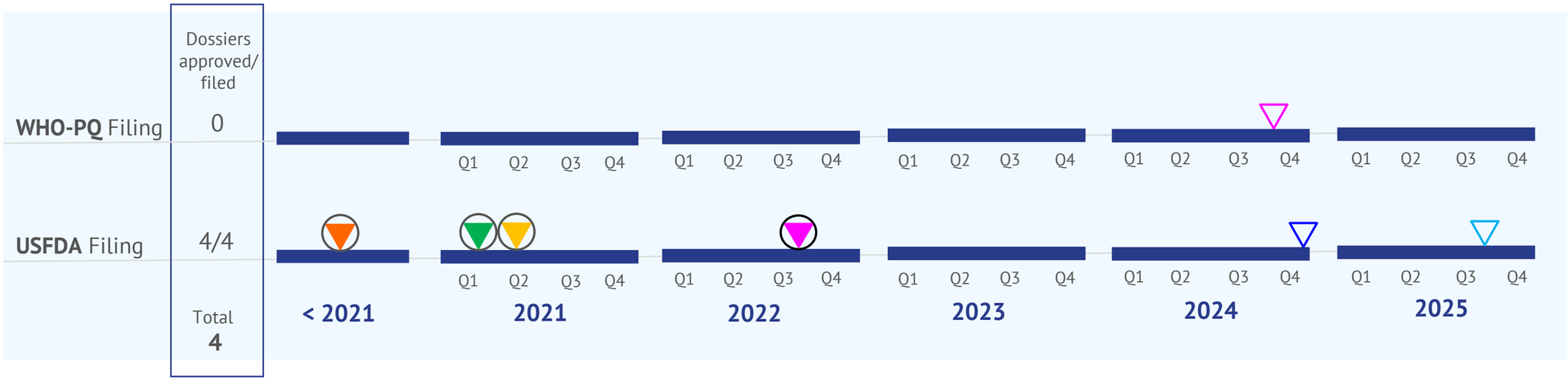
APPROVED IN **27** COUNTRIES

SUPPLIED IN **27** COUNTRIES

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions
^ People living with HIV (2023) in the licensed territory (refer MPP-Gilead TAF licence agreement)

Data as of June 2024

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



Companies approved ▽ Companies planning to file

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

4 MPP LICENSEES HAVE DEVELOPED TAF/3TC/DTG ADULT FORMULATION AND ALL ARE READY TO COMMERCIALIZE

Licensees Approved: Cipla, Laurus, Lupin, Mylan

2 additional licensees developing

Data as of June 2024

medicines patent pool

TAF/3TC/DTG (TAF-LD): COUNTRY WISE FILING STATUS

TAF/3TC/DTG has been filed in 22 countries

APPROVED (11)			
Congo	**Kenya**	Rwanda	Zambia
Congo, DR	Malawi	**South Africa**	**Zimbabwe**
Ethiopia	**Namibia**	Tanzania	

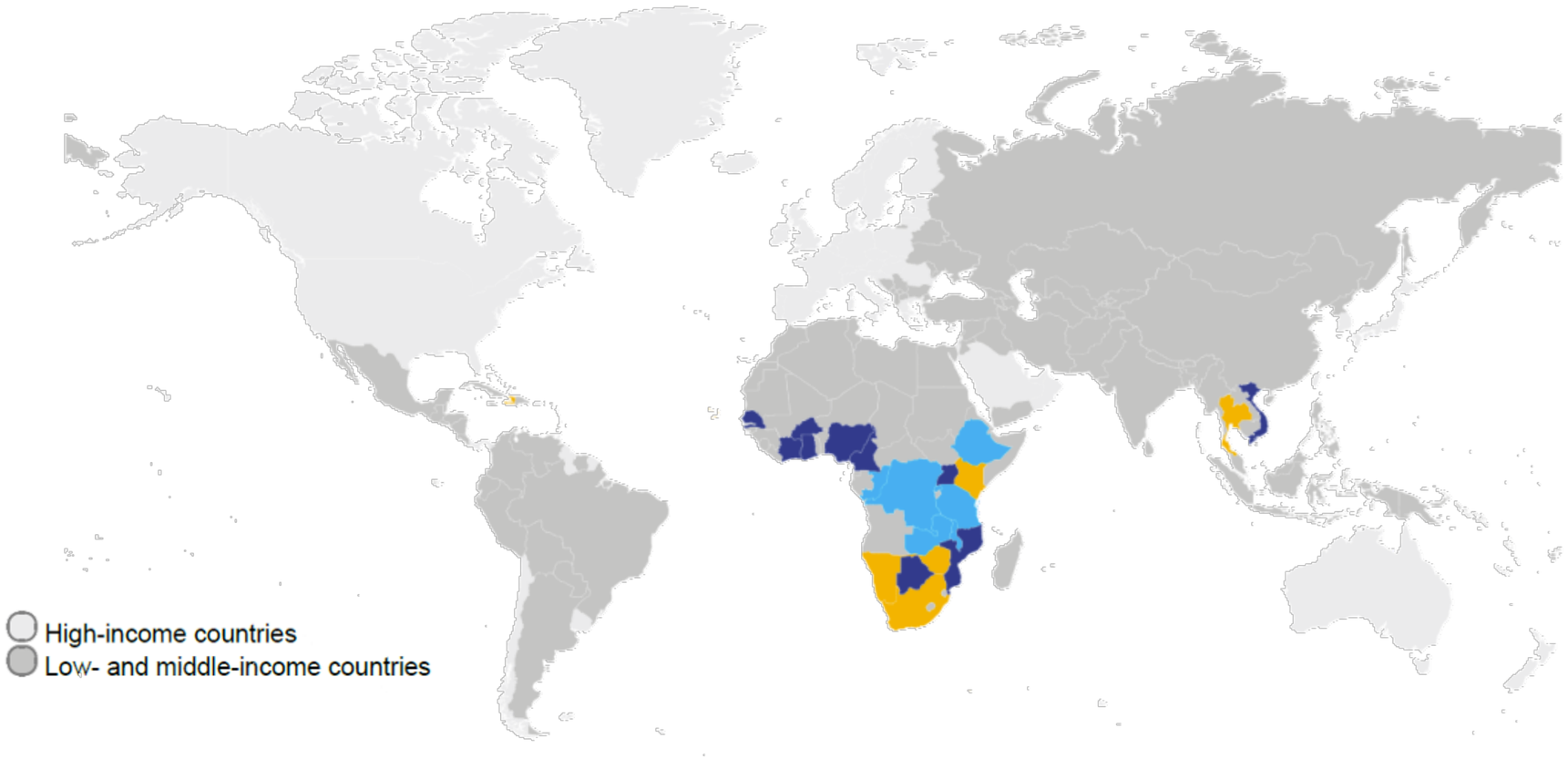
FILED (11)			
Botswana	Côte d'Ivoire	Nigeria	Uganda
Burkina Faso	Ghana	Senegal	Viet Nam
Cameroon	Mozambique	**Thailand**	

Countries where TAF-LD has been sold indicated in **bold type**
^ People living with HIV (2023) in the licensed territory (refer MPP-Gilead TAF licence agreement)
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

TAF/3TC/DTG Impact Map

TAF-LD sales have occurred in 7 countries



FILED IN **11** COUNTRIES

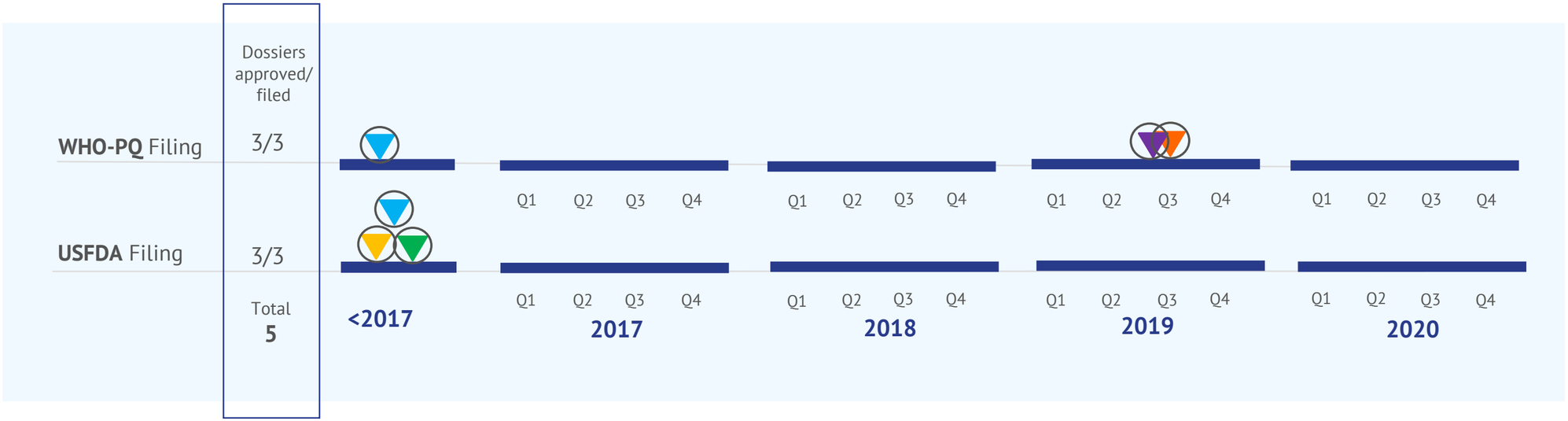
APPROVED IN **11** COUNTRIES

SUPPLIED IN **7** COUNTRIES

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

Data as of June 2024

ATV/r: FORMULATION DEVELOPMENT TIMELINES



Companies approved

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

5 MPP LICENSEES HAVE DEVELOPED ATV/R FORMULATION AND ALL ARE READY TO COMMERCIALIZE

Licensees Approved*: Cipla, Desano, Emcure, Mylan, Sun Pharma

*USFDA and/or WHO-PQ

Data as of June 2024

medicines patent pool

ATV/R: COUNTRY WISE FILING STATUS

Generic ATV/r has been filed in 50 countries which contribute to an effective coverage of 90.4% PLHIV^

APPROVED (38) 85.4% PLHIV				
Armenia	**Congo**	**Jamaica**	**Mozambique**	**Trinidad and Tobago***
Belarus	**Congo DR**	**Kenya**	**Myanmar**	**Uganda**
Bolivia	**Dominican Republic**	**Kyrgyzstan**	**Namibia**	**Ukraine**
Botswana	**Ethiopia**	**Madagascar**	**Nigeria**	**Uzbekistan**
Burkina Faso	**Ghana**	**Malawi**	Philippines	**Zambia**
Cambodia	Guatemala	**Mali**	**Rwanda**	**Zimbabwe**
Cameroon	Guyana	Mauritius	**South Africa**	
Colombia*	**India**	**Moldova**	**Tanzania**	

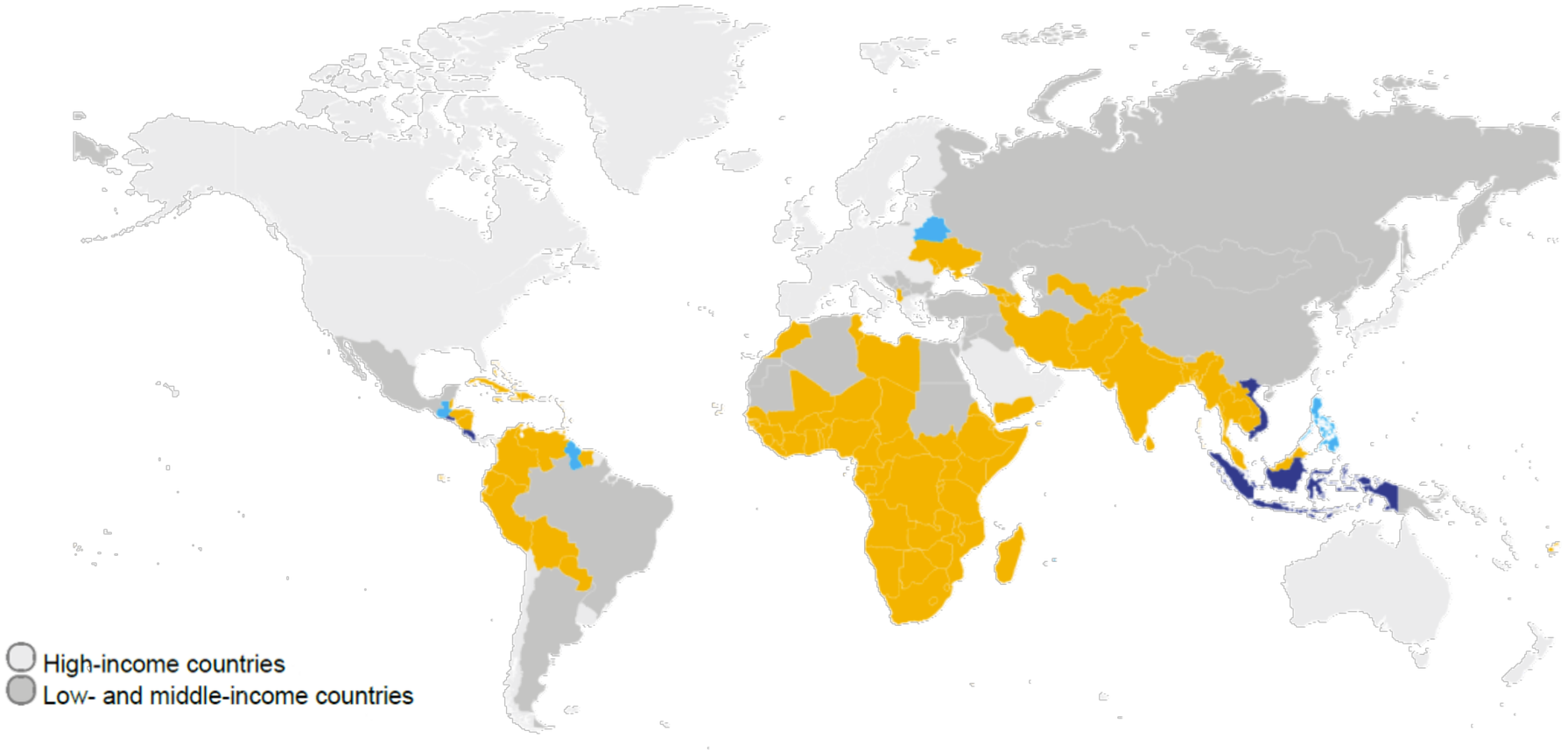
FILED (12) 5.1% PLHIV			
Benin	El Salvador	**Malaysia**	**Senegal**
Burundi	Indonesia	**Pakistan**	**Sri Lanka**
Costa Rica	**Iran**	**Peru***	Viet Nam

New approvals in green *vis-à-vis last update (Q4-23)*
Countries where ATV/r has been sold indicated in **bold type**
* Countries not included in ATV licence but supply by MPP licensees permitted if no patent is being infringed in that country
^ People living with HIV (2023) in the licensed territory (refer MPP-BMS ATV licence agreement) and countries with no patent infringements
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

ATV/r Impact Map

ATV/r sales have occurred in 98 countries in which 95% of PLHIV^ reside



FILED IN **12** COUNTRIES

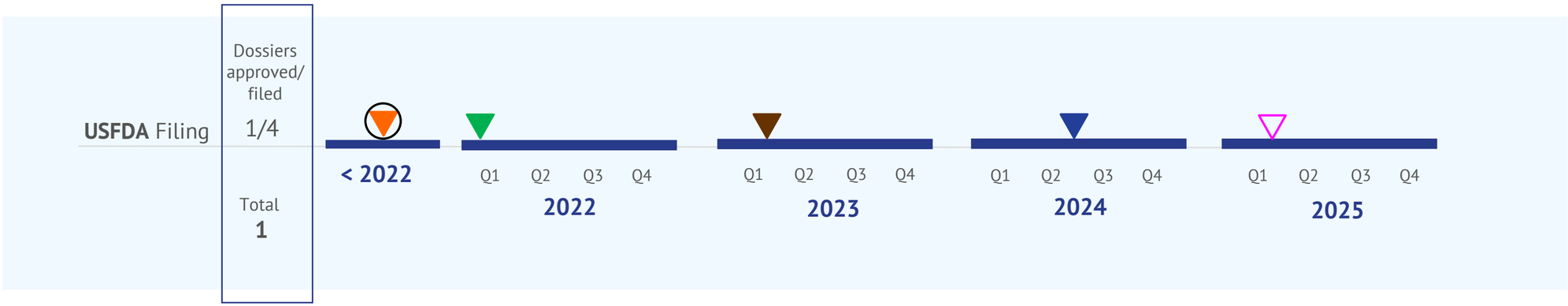
APPROVED IN **38** COUNTRIES

SUPPLIED IN **98** COUNTRIES

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions
^ People living with HIV (2023) in the licensed territory (refer MPP-BMS ATV licence agreement) and countries with no patent infringements

Data as of June 2024

DTG/3TC: FORMULATION DEVELOPMENT TIMELINES



Companies approved ▼ Companies filed ▽ Companies planning to file

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

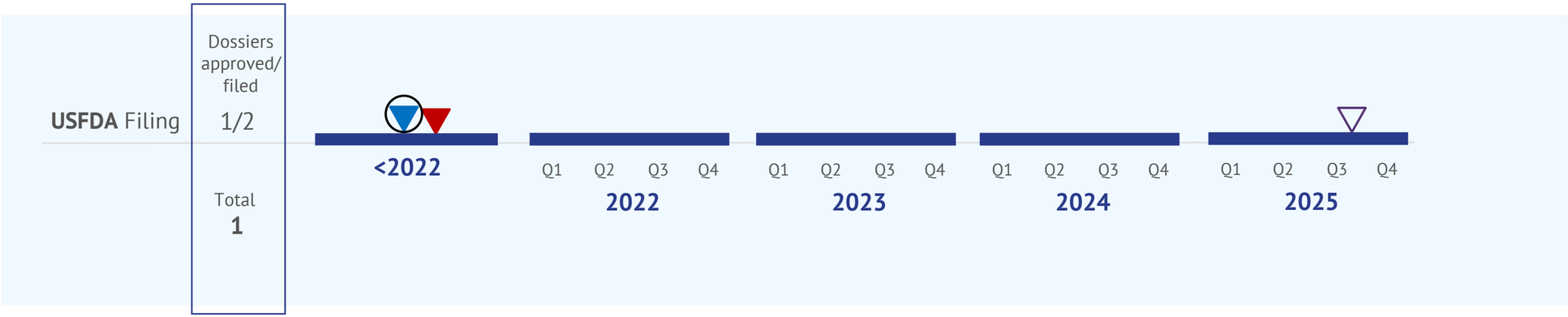
3 MPP LICENSEES HAVE DEVELOPED DTG/3TC DUAL FORMULATION

Licensee Approved: Cipla

3 licensees awaiting USFDA approval | 1 additional licensee developing

Data as of June 2024

DTG/RPV: FORMULATION DEVELOPMENT TIMELINES



Companies approved ▼ Companies filed ▽ Companies planning to file

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

2 MPP LICENSEES HAVE DEVELOPED DTG/RPV DUAL FORMULATION

Licensee Approved: Lupin

1 licensee awaiting USFDA approval | 1 additional licensee developing

Data as of June 2024

TAF/FTC:
FORMULATION DEVELOPMENT TIMELINES

6 MPP LICENSEES HAVE DEVELOPED TAF/FTC DUAL FORMULATION

Licensee Approved: Aurobindo, Laurus, Lupin

3 licensees awaiting USFDA approval

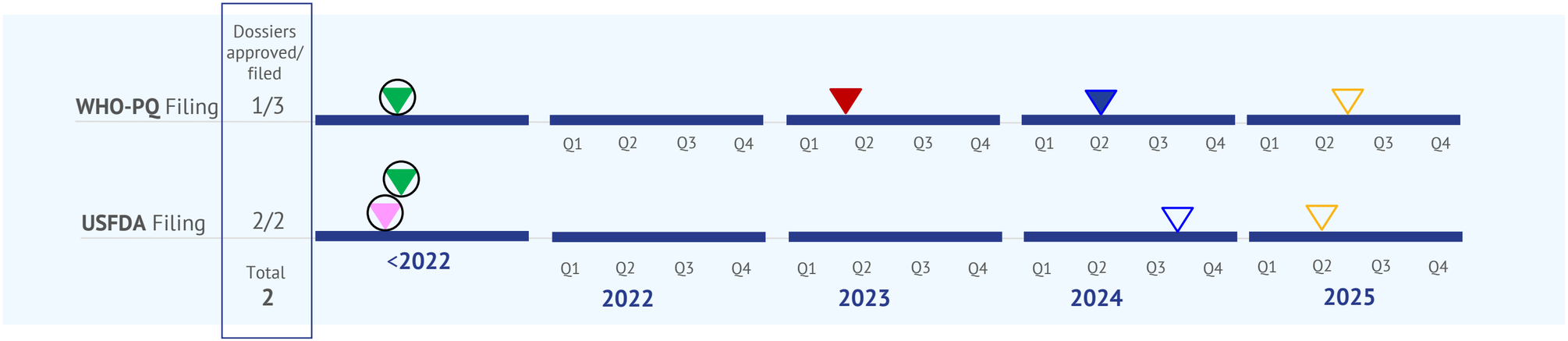
Data as of June 2024

medicines
patent
pool

PAEDIATRIC HIV

MEDICINESPATENTPOOL.ORG

DTG DT PAED (10MG SCORED): FORMULATION DEVELOPMENT TIMELINES



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

3 MPP LICENSEES HAVE DEVELOPED DTG DT PAED FORMULATION

Licensees Approved*: Macleods, Mylan

2 licensees awaiting WHO approval | 1 additional licensee developing

*USFDA and/or WHO-PQ

Data as of June 2024

medicines patent pool

DTG DT PAED (10MG SCORED): COUNTRY WISE FILING STATUS

Generic DTG DT 10mg has been filed in 38 countries which contribute to an effective coverage of 91% of CLHIV^

APPROVED (24) 71.4% CLHIV					
Botswana	**Congo, DR**	**India**	**Mozambique**	**South Africa**	**Uganda**
Cameroon	**Ethiopia**	**Kenya**	**Myanmar**	**Tanzania**	**Uzbekistan**
Chad	**Ghana**	**Malawi**	**Namibia**	**Thailand**	**Zambia**
Congo	**Guatemala**	**Mali**	**Rwanda**	**Togo**	**Zimbabwe**

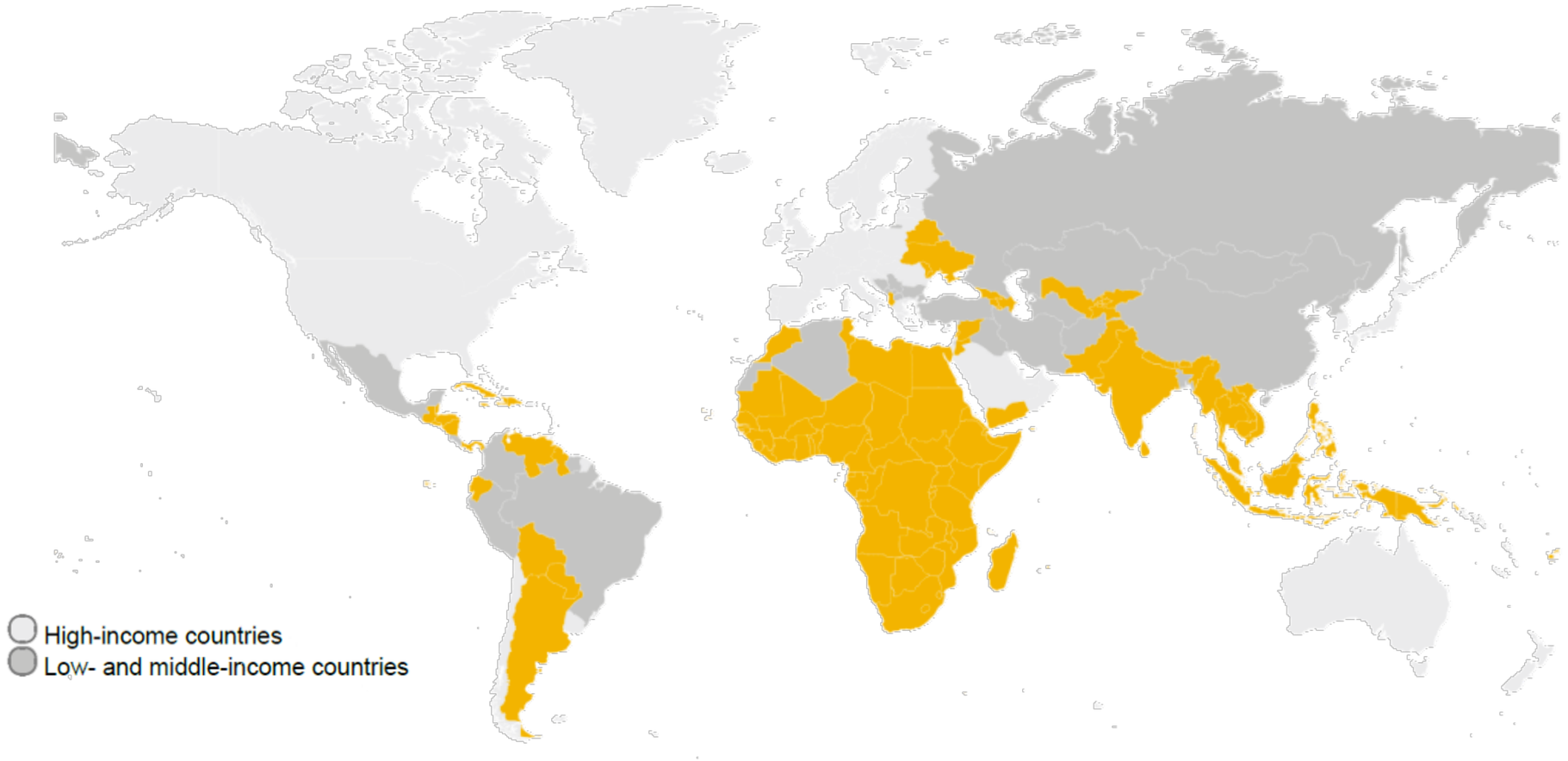
FILED (14) 19.6% CLHIV			
Angola	**Côte d'Ivoire**	**Indonesia**	**Senegal**
Benin	**Dominican Republic**	**Niger**	**Viet Nam**
Burkina Faso	**Gabon**	**Nigeria**	
Burundi	**Guinea-Bissau**	**Philippines**	

New filings and approvals in green *vis-à-vis last update (Q4-23)*
Countries where DTG DT 10MG has been sold indicated in **bold type**
^ Children living with HIV (2023) in the licensed territory (refer MPP-ViiV DTG Paed licence agreement) and countries with no patent infringements
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

DTG 10mg DT Impact Map

Generic DTG 10mg DT sales have occurred in 98 countries in which 99.4% of CLHIV^



FILED IN **14** COUNTRIES

APPROVED IN **24** COUNTRIES

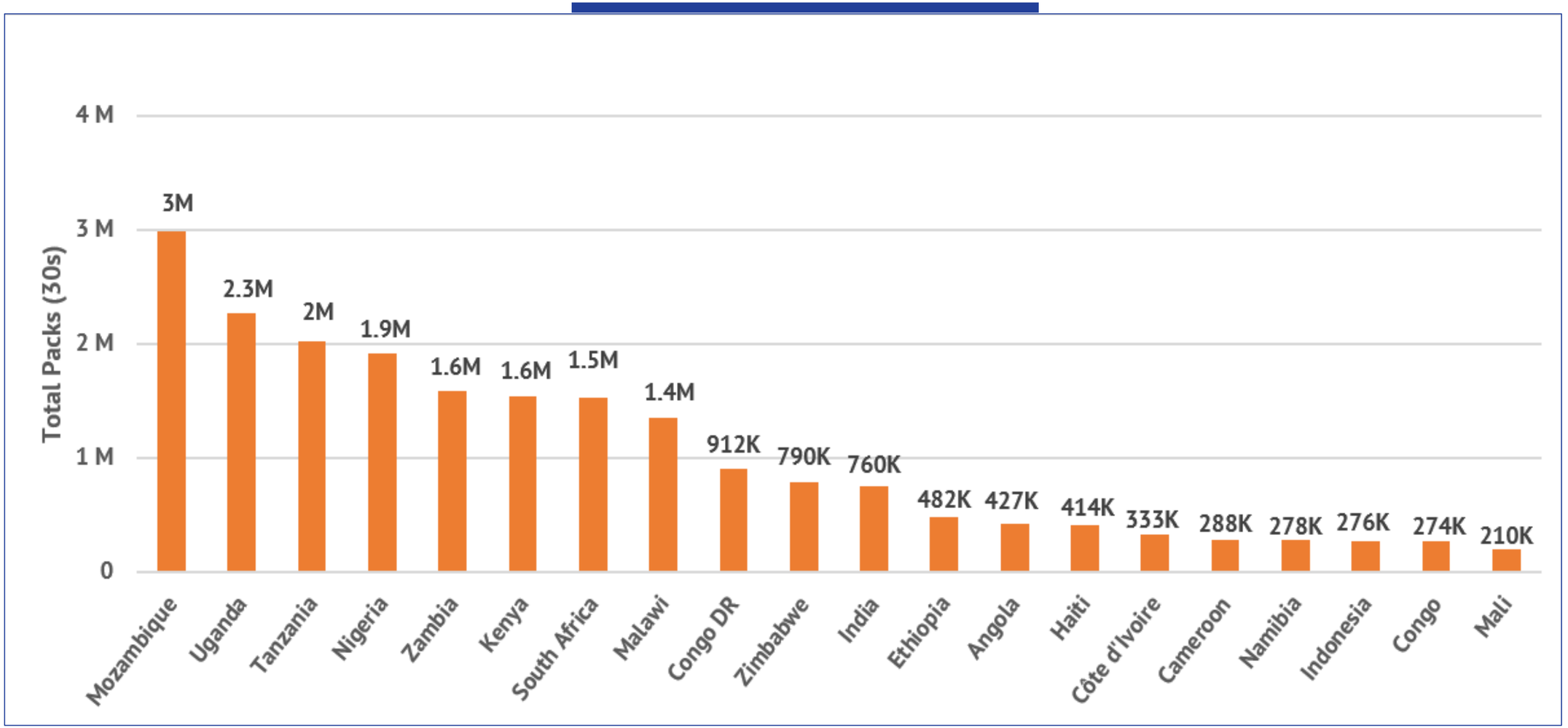
SUPPLIED IN **98** COUNTRIES

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions
^ Children living with HIV (2023) in the licensed territory (refer MPP-ViiV DTG Paed licence agreement) and countries with no patent infringements

Data as of June 2024

TOP COUNTRY RECIPIENTS OF DTG DT 10MG (2021 TO H1-2024)

As of H1-24, DTG DT 10mg was supplied in 98 countries by 2 of MPP Partners



Source: confidential sales data by MPP licensees

Note: Packs of 28's, 90's & 180's converted to 30's for this analysis

Data as of June 2024

ABC/3TC/DTG PAED (ALD): FORMULATION DEVELOPMENT TIMELINES

3 MPP LICENSEES HAVE DEVELOPED ABC/3TC/DTG PAED FORMULATION

Licensees Approved*: Aurobindo, Cipla, Mylan

1 licensee awaiting WHO approval | 3 licensees awaiting USFDA approval | 4 additional licensees developing

*USFDA and/or WHO-PQ

Data as of June 2024

ABC/3TC/DTG PAED: COUNTRY WISE FILING STATUS

Generic ALD paed has been filed in 30 countries, of which approval have been received in 2 countries

FILED (28)			
Angola	Congo	Kenya	Nigeria
Benin	Congo DR	Madagascar	Rwanda
Botswana	Côte d'Ivoire	Malawi	Senegal
Burkina Faso	Ethiopia	Mali	Tanzania
Burundi	Gabon	Mozambique	Uganda
Cameroon	Guinea	Myanmar	**Zambia**
Chad	India	Namibia	Zimbabwe

APPROVED (2)	
Ghana	South Africa

Country where ALD paed has been sold indicated in **bold type**
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

medicines
patent
pool

CABOTEGRAVIR

MEDICINESPATENTPOOL.ORG

CURRENT SUBLICENSEES FOR ViiV-MPP CAB-LA LICENCE

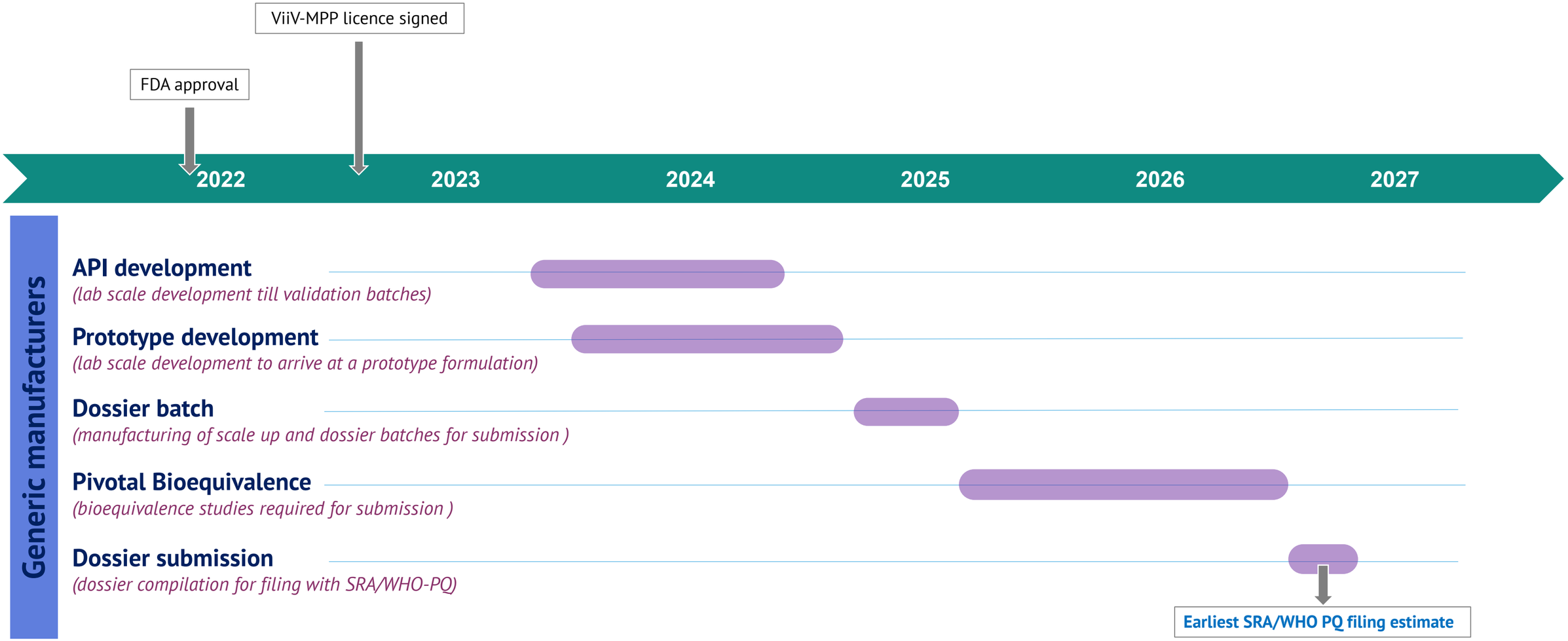
3 CAB-LA Sub-licensee Agreements

AUROBINDO

Cipla

Mylan

CAB-LA DEVELOPMENT TIMELINES



- These timelines are not specific to any generic company; these are averages of the timelines required for different activities as shared by MPP licensees.
- The earliest possible timelines for filing is H2 2026 based on the current estimation by MPP.
- Due to the uncertainty associated with product development, especially for such long-acting products, the timelines quoted here are tentative and can change during development of the product.

Data as of June 2024

medicines patent pool

HEPATITIS

MEDICINESPATENTPOOL.ORG

CURRENT SUBLICENSEES FOR BMS-MPP DACLATASVIR LICENCE

7 Daclatasvir Sub-licensee Agreements

BEXIMCO PHARMA here's to life

Cipla

HETERO

LAURUS Labs
Knowledge . Innovation . Excellence

Mylan

NATCO

zydus
Dedicated To Life

DAC 30MG & 60MG: FORMULATION DEVELOPMENT TIMELINES

Companies approved

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

5 MPP LICENSEES HAVE DEVELOPED DAC 30/60 MG FORMULATION AND ALL ARE READY TO COMMERCIALIZE

Licensees Approved: Cipla, Hetero, Laurus, Mylan, Zydus

Data as of June 2024

DAC 30 & 60MG: COUNTRY WISE FILING STATUS

Generic DAC 30/60 mg has been filed in 49 countries which contribute to an effective coverage of 60.4% PLHCV^

APPROVED (42) 58.7% PLHCV				
Azerbaijan	Congo, DR	Kenya	**Pakistan**	Uganda
Belarus	Côte d'Ivoire	**Kyrgyzstan**	**Paraguay**	**Ukraine**
Benin	Ethiopia	Liberia	**Philippines**	**Uzbekistan**
Burkina Faso	Gabon	Malawi	**Rwanda**	**Viet Nam**
Burundi	Ghana	**Malaysia**	Senegal	Zambia
Cambodia	Guyana	Mozambique	Suriname	**Zimbabwe**
Cameroon	**India**	**Myanmar**	**Tanzania**	
Chad	**Indonesia**	Nicaragua	Thailand	
Congo	**Kazakhstan**	**Nigeria**	**Turkmenistan**	

FILED (7) 1.8% PLHCV		
Bolivia	**Mongolia**	Togo
Haiti	Namibia	
Mali	**Nepal**	

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

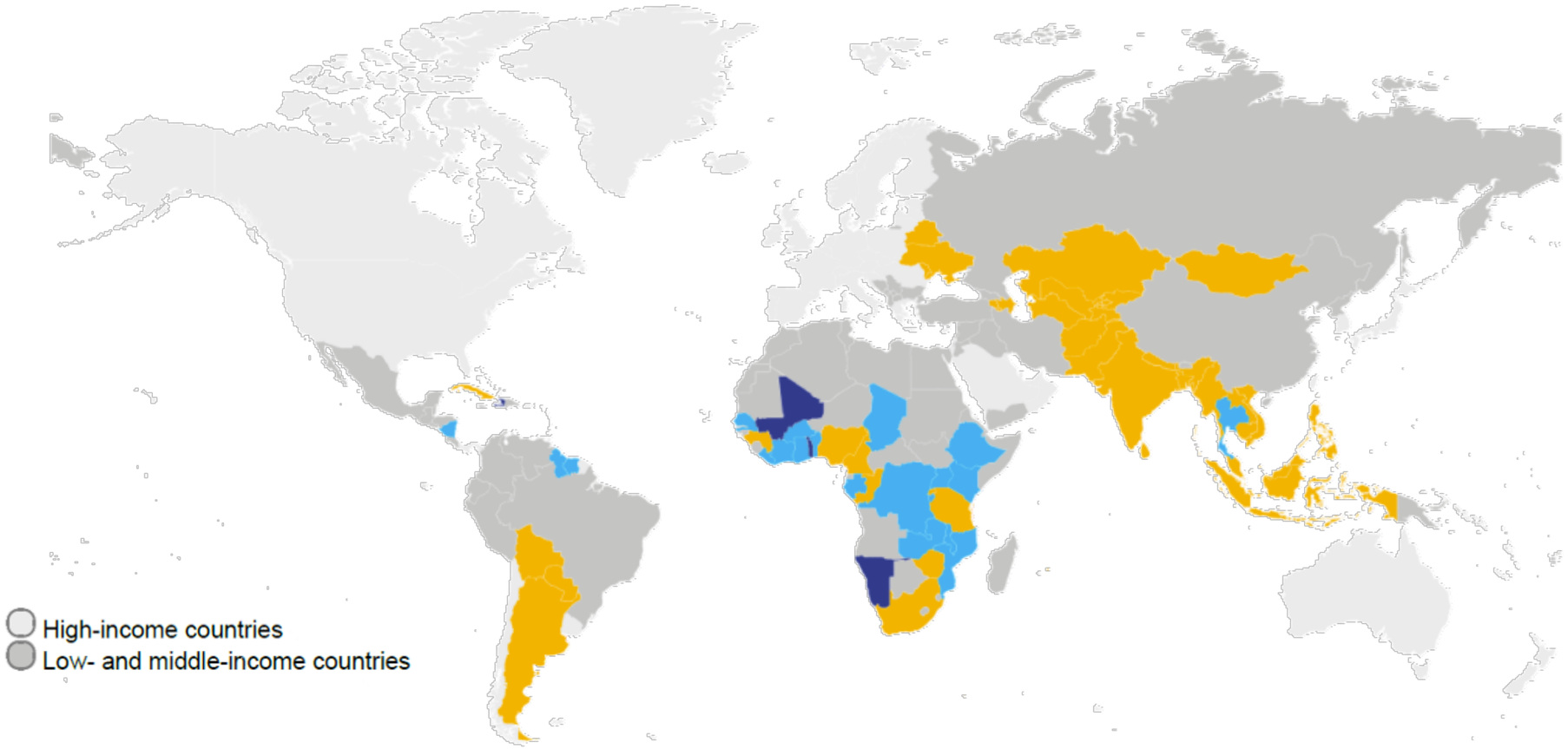
^ People living with Hepatitis C (2023) in the licensed territory (refer MPP-BMS DAC licence agreement) and countries with no patent enforcements

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

Data as of June 2024

DAC 60mg Impact Map

DAC 60mg sales have occurred in 38 countries in which 56% of PLHCV^ reside and where MPP licensees have supplied more than **~1.46 million treatments***



FILED IN **7** COUNTRIES

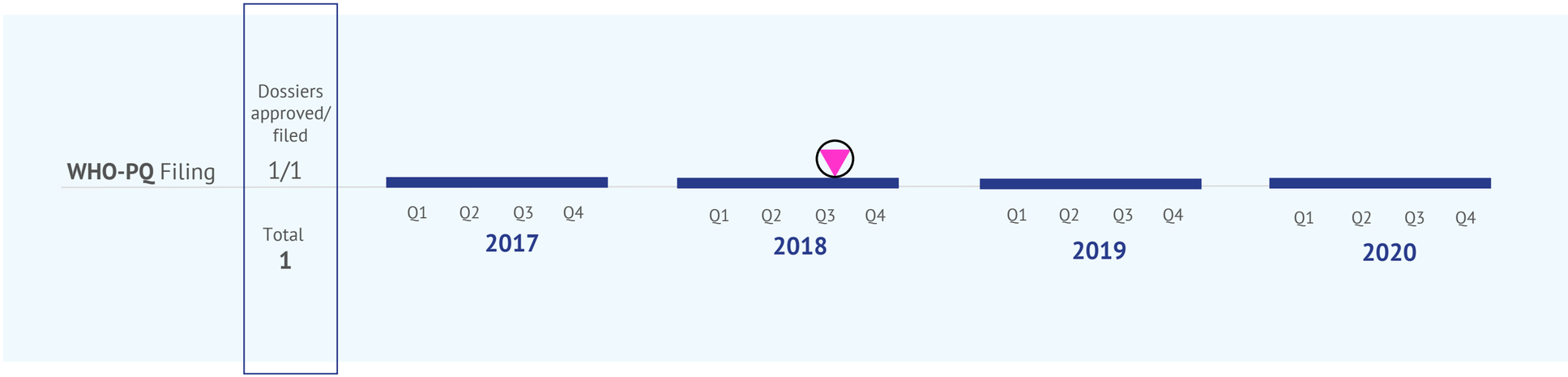
APPROVED IN **42** COUNTRIES

SUPPLIED IN **38** COUNTRIES

Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions
^ People living with Hepatitis C (2023) in the licensed territory (refer MPP-BMS DAC licence agreement) and countries with no patent enforcements
**Note: 1 HCV treatment = 12 weeks therapy (3 packs)*

Data as of June 2024

DAC/SOF: FORMULATION DEVELOPMENT TIMELINES



Companies approved

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

1 MPP LICENSEE HAS DEVELOPED DAC/SOF FORMULATION

Licensee Approved: Mylan

Data as of June 2024

DAC/SOF: COUNTRY WISE FILING STATUS

DAC/SOF has been filed in **20** countries, out of which approval has been received in **17** countries

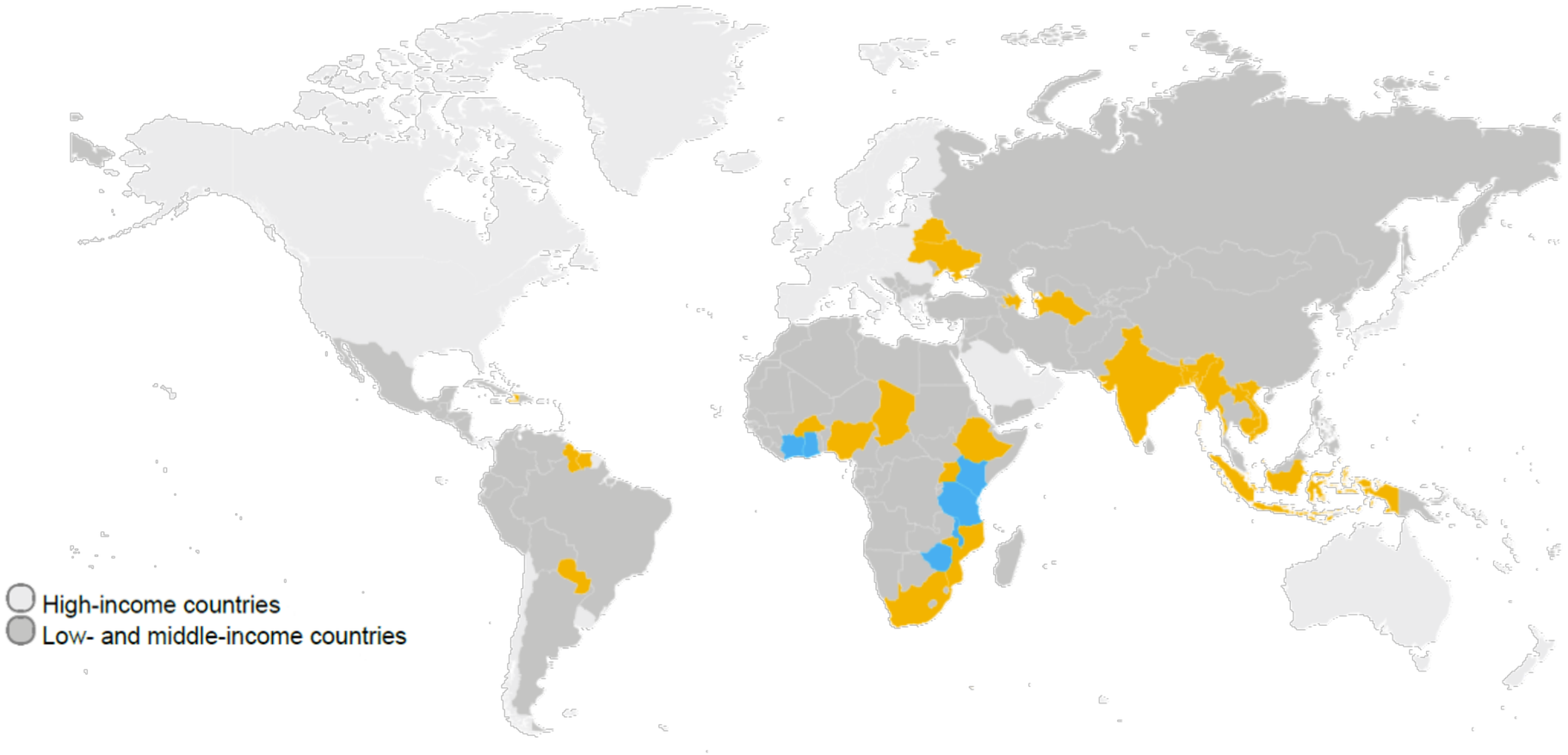
APPROVED (17)		
Belarus*	Kenya	Tanzania
Côte d'Ivoire	Malawi	**Turkmenistan**
Ethiopia	**Myanmar**	**Uganda**
Ghana	**Nigeria**	**Ukraine***
India	**Paraguay**	Zimbabwe
Indonesia	**Suriname**	

Countries where DAC/SOF has been sold indicated in **bold type**
* Countries not included in DAC licence but supply by MPP licensees permitted if no patent is being infringed in that country
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024

DAC/SOF Impact Map

MPP licensees have supplied **153,639 treatments*** of generic DAC/SOF across 22 countries



FILED IN **3** COUNTRIES

APPROVED IN **17** COUNTRIES

SUPPLIED IN **22** COUNTRIES

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

Data as of June 2024

CURRENT SUBLICENSEES FOR GILEAD-MPP TENOFOVIR ALAFENAMIDE LICENCE

10 Tenofovir Alafenamide Sub-licensee Agreements

adcock ingram

AUROBINDO

DESANO

Emcure
SUCCESS THROUGH INNOVATION

LANGHUA
朗华制药

LAURUS Labs
Knowledge . Innovation . Excellence

LUPIN

MACLEODS

MICRO LABS LIMITED

NATCO

TAF 25MG:
FORMULATION DEVELOPMENT TIMELINES

2 MPP LICENSEES HAVE DEVELOPED TAF 25MG FORMULATION

Licensees Approved: Laurus, Lupin

1 additional licensee developing

Data as of June 2024

medicines patent pool

TAF 25MG: COUNTRY WISE FILING STATUS

Generic TAF 25mg has been filed in 22 countries, of which approval has been received in 14 countries

APPROVED (14)

India	**Lao**	**Thailand**	**Viet Nam**
Indonesia	**Myanmar**	Uganda	Zimbabwe
Kazakhstan	**Philippines**	**Ukraine**	
Kyrgyzstan	**Tanzania**	**Uzbekistan**	

FILED (8)

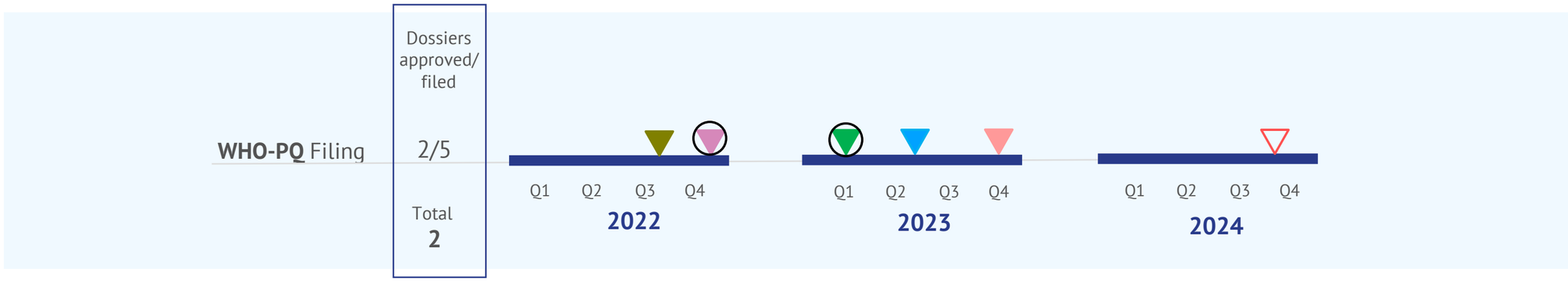
Azerbaijan	Malawi	Nigeria
Ethiopia	Malaysia	Zambia
Kenya	Mongolia	

Countries where TAF 25mg has been sold indicated in **bold type**
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

Data as of June 2024


medicines
patent
pool
COVID-19
MEDICINESPATENTPOOL.ORG

MOLNUPIRAVIR: FORMULATION DEVELOPMENT TIMELINES



Companies approved | Companies filed | Companies planning to file

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

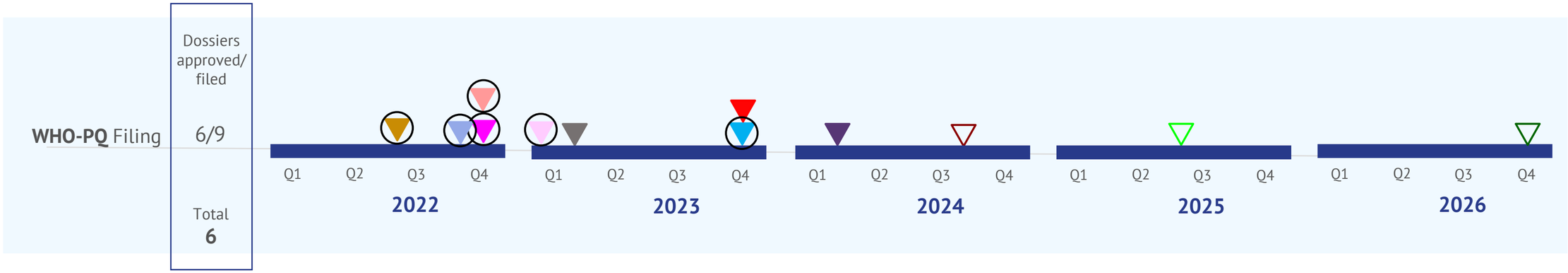
5 MPP LICENSEES HAVE DEVELOPED MOL 200MG

Licensees Approved: Desano, Fosun

3 licensees awaiting WHO-PQ approval | 1 additional licensee developing

Data as of June 2024

NIRMATRELVIR+RITONAVIR (CO-PACK): FORMULATION DEVELOPMENT TIMELINES



Companies approved Companies filed Companies planning to file

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

9 MPP LICENSEES HAVE DEVELOPED NIR+RTV CO-PACK

Licensee approved: Apeloa, Celltrion, Desano, Fosun, Hetero, Huahai

3 licensees awaiting WHO-PQ approval | 3 additional licensees developing

Data as of June 2024

COVID-19 PRODUCTS: COUNTRY WISE FILING STATUS

NIR300mg +RTV100mg (Co-pack) has been filed in 27 countries, of which approval has been received in 9 countries

FILED (18)	
Botswana	Mongolia
Burkina Faso	Morocco
Cameroon	Namibia
El Salvador	Nicaragua
Gabon	Philippines
Honduras	Uganda
Indonesia	Viet Nam
Kenya	**Zambia**
Mali	Zimbabwe

APPROVED (9)	
Cambodia	Laos
Congo DR	**Malawi**
Ethiopia	South Africa
Ghana	Tanzania
India	

MOL 200mg has been filed in 7 countries, of which approval has been received in 5 countries

FILED (2)	
Ghana	Thailand

APPROVED (5)	
India	Philippines
Indonesia	Viet Nam
Pakistan	

Data as of June 2024

Countries where MOL 200mg and NIR 300mg+RTV 100mg (co-pack) have been sold indicated in **bold type**
Note: Sales may occur in countries in the absence of registration via procurement channels, registration waivers and/or exemptions

medicines
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NILOTINIB

MEDICINESPATENTPOOL.ORG

CURRENT SUBLICENSEES FOR NOVARTIS-MPP NILOTINIB LICENCE

4 Nilotinib Sub-licensee Agreements

BrightGene 博瑞医药

Dr.Reddy's

eugia

HETERO

medicines patent pool

NILOTINIB:

FORMULATION DEVELOPMENT TIMELINES

Two MPP licensees have developed NTB 50mg*, 150mg and 200 mg and filed with SRA

Two more MPP licensees are developing NTB 150mg and 200 mg and plan SRA filings

*Only 1 MPP licensee has filed 50mg strength

Data as of June 2024





HEALTHY COMMUNITIES






AMBULANCE


THANK YOU