Global COVID-19 vaccine exports have reached 4.5bn in January 2022 (40% of production), despite trade barriers EU exports rose most (to 1.7bn) while India did not contribute to global distribution due to its export ban and supply issues. Distribution between countries is no longer a key bottleneck. Industry is even asked to halt deliveries as stocks in LMICs and LICs rise.
COVAX deliveries surged in Q4 2021 with more vaccines having been shipped through COVAX in the last 10 weeks than in the 10 months prior, passing 1.0bn by mid-January 2022. This is corroborated by the evidence of rapidly increasing bilateral and COVAX supplies and donations to LMICs and LICs, passing 4bn in early 2022.

Core elements needed for effective vaccination roll-outs are: 1) Strengthening healthcare system capacities for COVID-19 vaccine administering (coordination, healthcare workers, complex vaccine handling) and 2) Addressing vaccine hesitancy. This would help the 1.21bn unvaccinated 15+ citizens of LMICs and LICs and reduce undistributed stocks of COVID-19 vaccines.

CHALLENGES TO VACCINE IMPLEMENTATION ACCORDING TO WHO

unused stock (million doses)

0 20 40 60 80 100 120 140

Rest LMIC/LIC
Bangladesh
Philippines
Indonesia
Iran
Nigeria
Pakistan
Egypt
Vietnam
Uganda
Algeria
Myanmar
Ethiopia
Ghana
Angola
Kenya
Nepal
Bolivia
Cambodia
Rwanda

0.99bn adults in LMICs and LICs have not been fully vaccinated

Vaccines doses (billion)

0 1.5 3.0 4.5

Number of COVID-19 vaccine shipments

0 50 100 150 200 250 300 350

Source: WHO (20 January 2022)

Source: Airfinity (4 February 2022)

Source: WHO (January 2022)

Source: Gallup (2020), Created with Datawrapper

68% of adults worldwide were willing to take a vaccine if offered

In Cameroon and Gabon, two-thirds of the population would not take the vaccine if offered

Vaccine willingness ranged from 96% in Myanmar to 31% in Jordan, 30% in Hungary, and 25% in Kazakhstan

32% of adults (1.3 billion people) said they would not take a vaccine

Source: Gallup (2020), Created with Datawrapper

Source: World Bank (2022), Airfinity (7 January 2022)

Source: World Bank (2022), Airfinity (17 January 2022)

Healthcare system capacities and vaccine hesitancy hamper vaccination success

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*IP incentivises long-term R&D (5,518 clinical trials are currently ongoing)*

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*IP continues to facilitate effective collaboration and voluntary technology transfers*

*IP supports vaccine confidence by reducing the risk of counterfeit vaccines*

*IP is key for global preparedness for new Variants of Concern and future pandemics*

---

**COVID-19 vaccination rates Africa (15+, %)**

<table>
<thead>
<tr>
<th>Country</th>
<th>2019-2020</th>
<th>2020-2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Botswana</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Cameroon</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Cote d'Ivoire</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>South Africa</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Malawi</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Mozambique</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Namibia</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Niger</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Republic of Congo</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>South Sudan</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Swaziland</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Tanzania</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Togo</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Uganda</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Zambia</td>
<td>24%</td>
<td>48%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>24%</td>
<td>48%</td>
</tr>
</tbody>
</table>

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**Number of Africa’s vaccine value chain players per country**

<table>
<thead>
<tr>
<th>Country</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>EGYVAC (Vacsera)</td>
<td>BCG, T, Rabies, Tetanus, EBV, Typhoid, Cholera</td>
</tr>
<tr>
<td>BoviGeneses</td>
<td>BCG, Mumps, Pneumococcal, HepB, COVID-19</td>
</tr>
<tr>
<td>Biocine</td>
<td>BCG, DT, Yellow fever, Typhoid, Influenza, Rabies</td>
</tr>
<tr>
<td>IMSS</td>
<td>Plan to produce vaccines</td>
</tr>
<tr>
<td>EPHI</td>
<td>Plan to produce Hep B, Tetanus, DT, Hep B, Yellow fever, Mumps</td>
</tr>
<tr>
<td>Innovative Biotech</td>
<td>HIV</td>
</tr>
<tr>
<td>Institut Pasteur</td>
<td>Rabies</td>
</tr>
</tbody>
</table>

---

**Africa’s engagement by value chain steps**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institut Pasteur Dakar</td>
<td>Yellow Fever</td>
</tr>
<tr>
<td>EGYVAC (Vacsera)</td>
<td>BCG, T, Rabies, Tetanus, EBV, Typhoid, Cholera</td>
</tr>
<tr>
<td>Institut Pasteur Tunis</td>
<td>BCG</td>
</tr>
<tr>
<td>Bovigene</td>
<td>BCG, Mumps, Pneumococcal, HepB, COVID-19</td>
</tr>
<tr>
<td>Aspen Pharmacare</td>
<td>COVID-19</td>
</tr>
<tr>
<td>Institut Pasteur Marocq</td>
<td>BCG, DT, Yellow fever, Typhoid, Influenza, Rabies</td>
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<tr>
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<td>Plan to produce vaccines</td>
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**GETTING THE WORLD VACCINATED AGAINST COVID-19**

**February 2022 Statistics Update**

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**Getting the world vaccinated against COVID-19**

FEBRUARY 2022

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**Healthcare Access & Quality Index**

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**COVID-19 Development**

<table>
<thead>
<tr>
<th>Year</th>
<th>Disease</th>
<th>Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>SARS</td>
<td>2002-2004</td>
</tr>
<tr>
<td>2009</td>
<td>H1N1</td>
<td>2009-2010</td>
</tr>
<tr>
<td>2013</td>
<td>Ebola</td>
<td>2013-2016</td>
</tr>
<tr>
<td>2019</td>
<td>MERS</td>
<td>2019-2020</td>
</tr>
<tr>
<td>2020</td>
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**Innovative Biotech**

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**R&D HAS GIVEN US SAFE AND EFFECTIVE COVID-19 VACCINES BUT WE NEED TO BE READY FOR NEW VARIANTS**

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There is a strong correlation between healthcare capacity and vaccination rates. With production not being a bottleneck, strengthening the varied healthcare system capacities across Africa is critical. Building up manufacturing capacity will support African resilience for future pandemics.

---

**By strengthening healthcare system capacities in Africa, vaccine equity can be reached**

---

**Industry engagements in Africa**

- J&J near final discussion to license J&J vaccine to Aspen Pharmacare.
- EU led initiative to create stronger manufacturing capabilities in Africa.
- Agreement between Pfizer and MPP to licence Paclitaxol.
- Agreement between MSD and MPP to licence Molnupiravir.
- Moderna announces to build mRNA facility in Africa (for up to 500 mln vaccines p.a.)
- BioNTech announces plans to manufacture vaccines in Rwanda and Senegal.
- Pfizer/BioNTech sign agreement with Biovacc to manufacture Pfizer/BioNTech vaccine.

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**Country readiness**

- Pfizer and Zipline complete first vaccine delivery by drone in Ghana.
- Moderna signs supply agreement with Botswana to support access to vaccines.

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**R&D generated important scientific data used for developing COVID-19 vaccines and treatments.**

---

**Use of medical research from previous outbreaks and new technologies (e.g. mRNA, Live Viral Vector technology).**

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**R&D is still ongoing in 94% of vaccine and 98% of treatment cases and may be key to address Variants of Concern (VoC) like Omicron (BA.1, BA.2) and future Variants that will likely emerge.**

---

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GETTING THE WORLD VACCINATED AGAINST COVID-19
FEBRUARY 2022
STATISTICS UPDATE

WHO EMERGENCY USE LISTING (EUL) FOR THE DIFFERENT VACCINES IN 2020 AND 2021

THE COVID-19 R&D PIPELINE SHOWS THAT MOST R&D EFFORTS ARE STILL ONGOING, MAKING IP PROTECTION VITAL

COVID-19 Vaccine pipeline

COVID-19 Treatments pipeline

NEW TYPES OF VACCINES:
VAXELIS (MSD, Sanofi Pasteur): six-in-one (hexavalent) combination vaccine

NEW VACCINE FORMULATIONS:
Dry-powder formulation of a COVID-19 vaccine

NEW FORMS OF PROTECTION:
Lettuce-based chewing gum that blocks entry of virus in human cells and traps COVID particles in the mouth

NEW TYPES OF ADMINISTRATION:
Vaxxas “nanopatch”, nasal spray vaccines

NEW TESTS:
Three-in-one tests for COVID-19, flu and cold in the form of saliva spit test

Only 5.9% (33 of 554) of all COVID-19 vaccines and 1.9% (32 of 1708) of all treatments in development have been approved to date. A strong IP framework remains vital to continue to fight emerging COVID-19 Variants of Concern, to support different patient populations, and increase future pandemic preparedness.

R&D IS ALSO VITAL AGAINST CONTINUOUSLY EMERGING VARIANTS OF CONCERN (VoC)

Levels of risk of emerging new variants

Current situation on main existing COVID-19 variants

Continued R&D is vitally important also in light of the risk of newly emerging Variants of Concern (e.g. Delta, Omicron BA.1, BA.2), especially in case next generations of vaccines are needed against new mutations. The risk of emerging new variants is significant, linked to the degree of uncontrolled transmission, population, immunocompromised prevalence, vaccine coverage, etc.

FIVE STEPS TO URGENTLY ADVANCE COVID-19 VACCINE EQUITY

OPTIMISE PRODUCTION
ELIMINATE TRADE BARRIERS
STEP UP DOSE SHARING
SUPPORT COUNTRY READINESS
DRIVE FURTHER INNOVATION

www.ifpma.org/covid19/