TACKLING CORONAVIRUS (COVID-19)
CONTRIBUTING TO A GLOBAL EFFORT

ACCESS TO COVID-19 VACCINES

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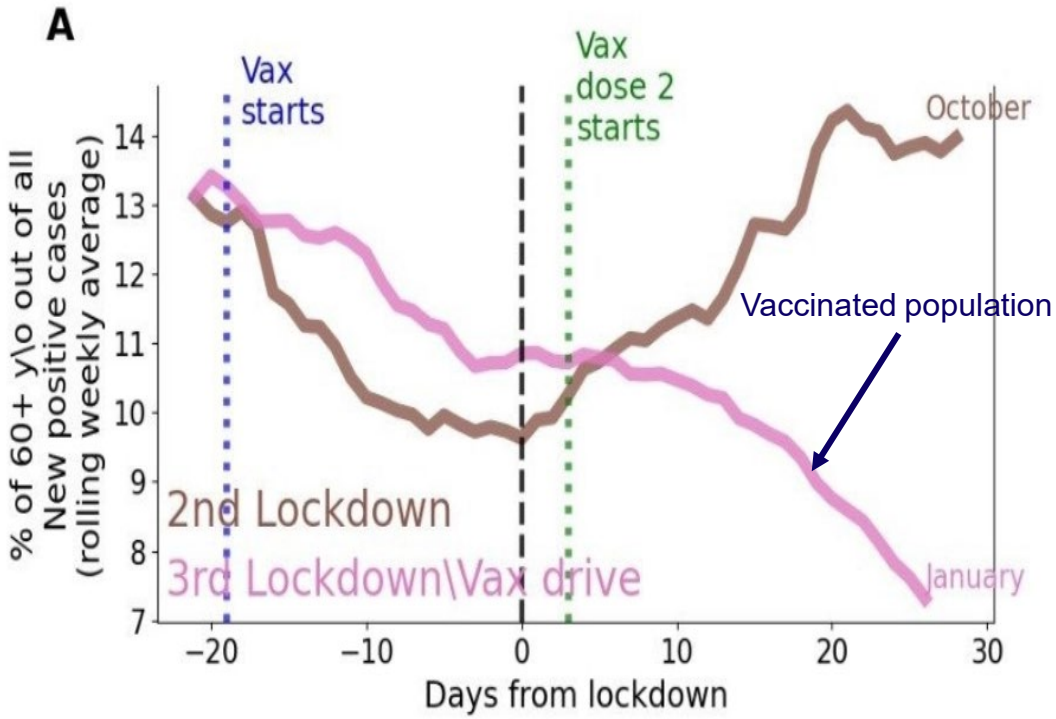
BETTER POLICIES FOR BETTER LIVES

COVID-19 vaccines are unquestionably a success story

The current situation reflects an *extraordinary achievement:*

- In less than a year, we've developed, tested, approved and begun administering vaccines against a **novel virus**.
- The **R&D effort has been massive** (>$13B in public R&D funding, >60 candidates still in clinical trials) and the level of **international collaboration unprecedented** (161 vaccine clinical trials declared/ underway, COVAX initiative, EU joint procurement)
- Already at least **4 highly effective vaccines are available**, with few side-effects reported
- Vaccination efforts are well underway in several countries - and already **starting to bend the curve**

Evolution of case numbers in Israel (60+)

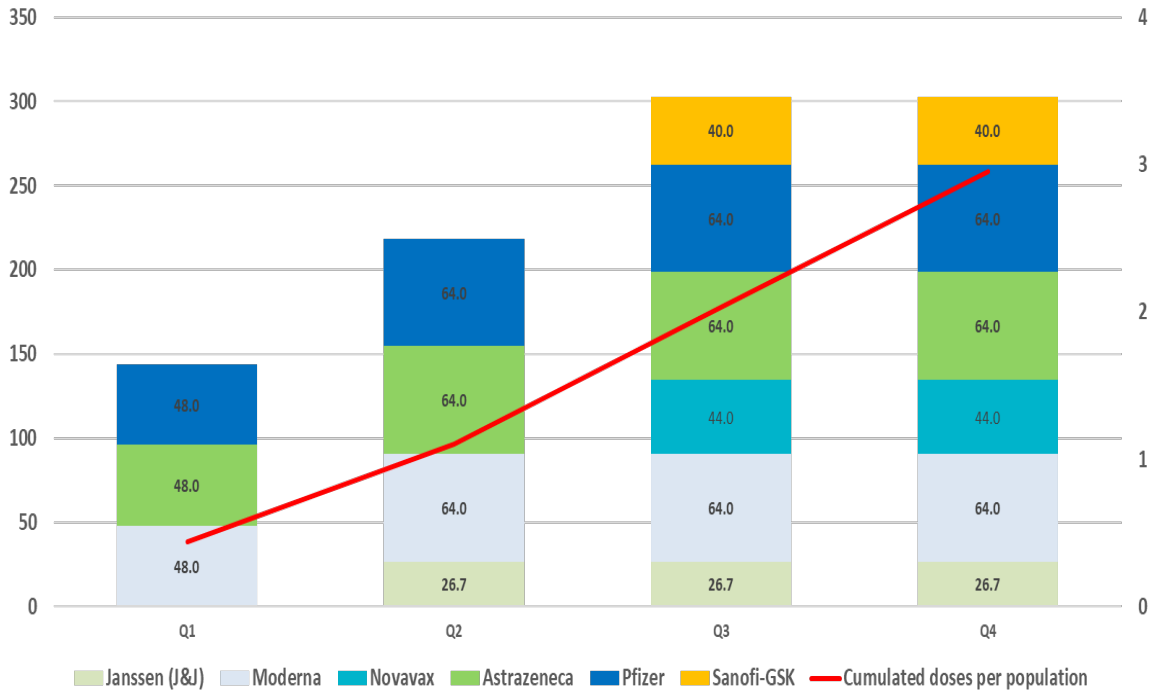


Source: Eran Segal, Weizmann Institute of Science

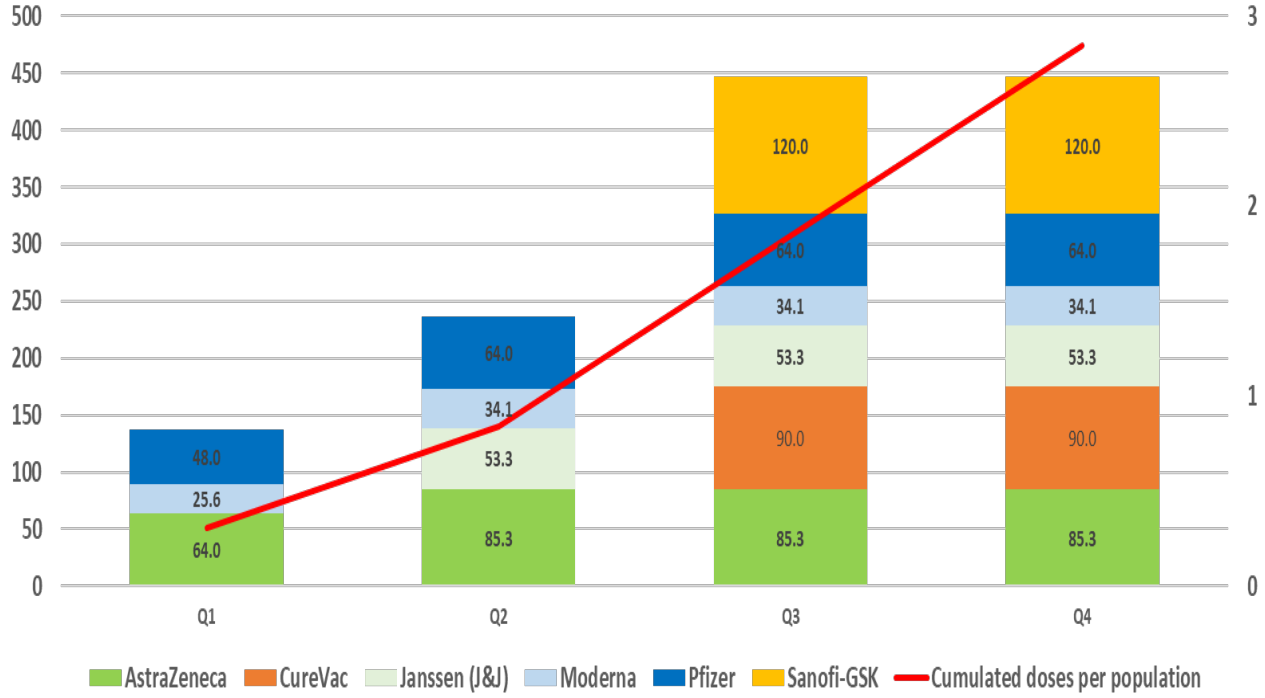
Supply: We can expect a major increase in the next months

Under conservative assumptions, **Q2 2021 will see a huge increase in vaccine in OECD countries**

Expected doses delivered to the USA in 2021 (millions)



Expected doses delivered to the EU in 2021 (millions)



Source: OECD based on data https://launchandscalefaster.org/COVID-19

Supply: Anticipate needs

- **Supply needs to continue to be increased**, production facilities built.
- In a few months the situation will be very different and **the bottleneck will likely move from supply to delivery at patient level.**
- **Anticipate this now**: ensure logistic support for warehousing and distribution in order to avoid waste (already happening in some places):
  - Massive scale up of vaccine manufacturing capacity, additional capacity to produce ancillary products e.g. (vials, syringes, refrigeration equipment).
  - Sharing of IP, but also, and as importantly, technology transfer to enable the production of already-authorized vaccines.
  - Personnel and infrastructure support for vaccine delivery and administration.

Distribution: who should be vaccinated first?

Saving lives requires 2 things

1. **Prioritizing vulnerable populations**
2. **Managing variants** because these put the entire global vaccination effort at risk:
   - Viral mutations and the emergence of variants are a function of replication
   - If new strains become dominant, vaccine efficacy may falter and high rates of reinfection could occur
   - Vaccination programs that prioritise interrupting the spread of new variants should arguably be the highest priority

So getting vaccines to the most vulnerable in countries where pandemic is at its 'hottest' – North America, Europe, South Africa, Brazil, Mexico…

Distribution: Who is currently being vaccinated ?

- High income countries (16% of global population) have negotiated **supply agreements with multiple manufacturers**, for ~60 % of the world's vaccine supply.
  - Leading to claims of 'vaccine nationalism', as countries that invested heavily claim priority
  - Many have contracted quantities vastly in excess of their needs
  - A few countries have pledged to share excess doses with other countries

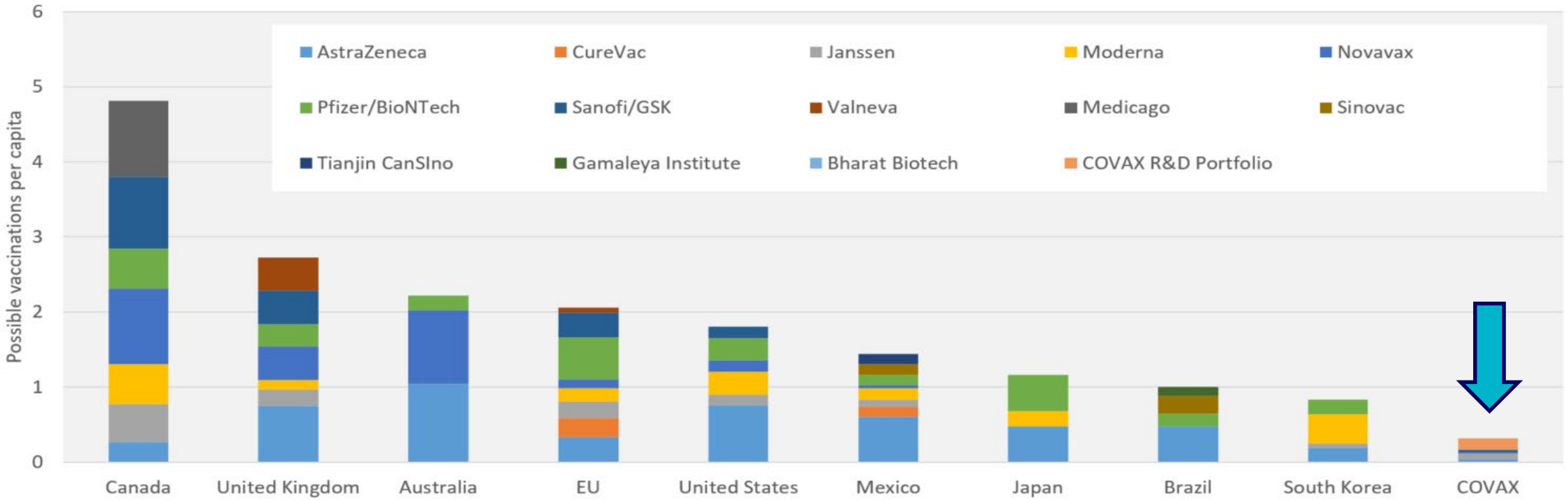
- Some countries, such as Brazil and India, **gained priority access through hosting clinical trials** and licensing technology for **local manufacturing**
  - Meanwhile **COVAX continues to struggle** to purchase vaccine sufficient for 20 % of the population of LMICs by end 2021
  - **Many low- and middle-income countries will have to wait** until capacity becomes available for wider supply

"Vaccine nationalism is not just morally indefensible. It is epidemiologically self-defeating and clinically counterproductive".

Distribution: HICs and countries with domestic R&D/capacity have huge orders

Number of possible vaccinations per capita, based on pre-ordered SARS-CoV-2 vaccine doses

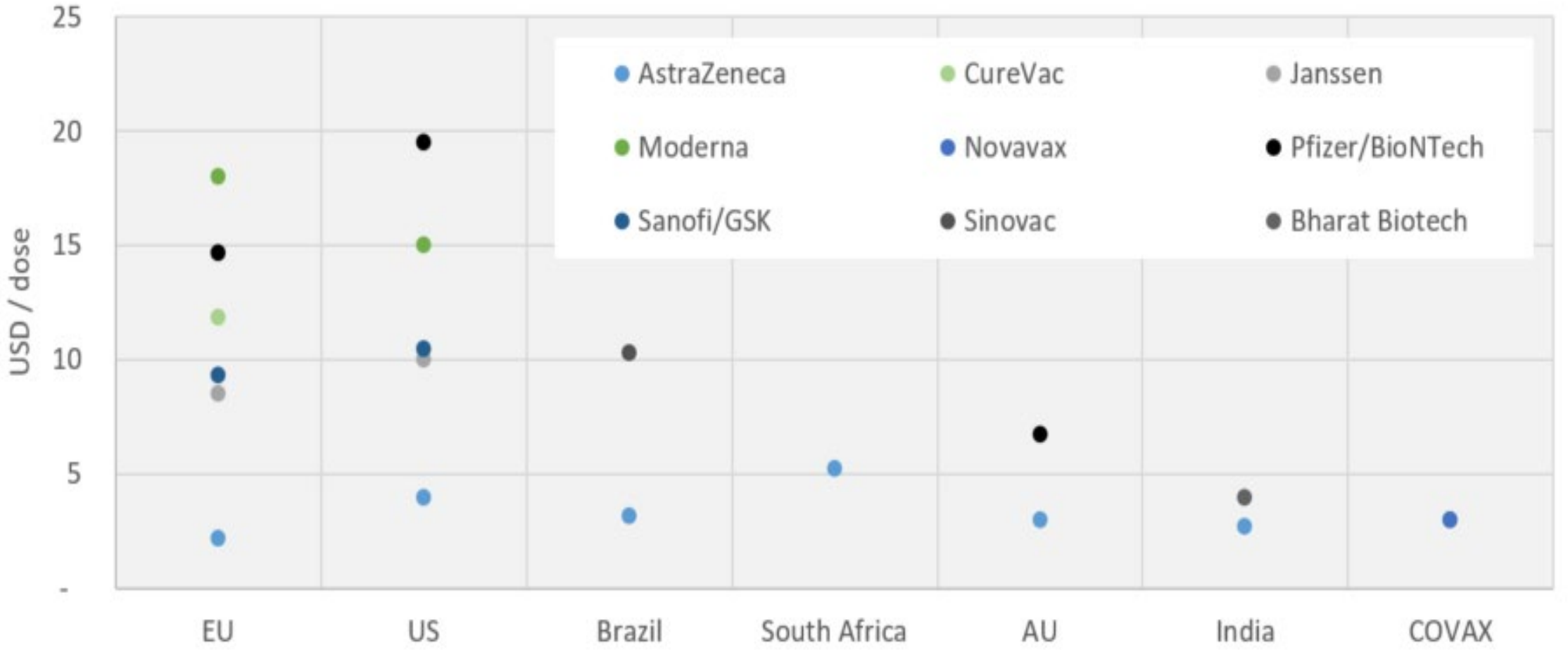
Status 22 January 2021



Notes: Assumes that 2 doses of any given vaccine are necessary for full initial immunisation. The number of doses secured does not include purchase options and may therefore underestimate the number of doses secured by countries. The numbers of doses per country are based on publicly available information; data are likely to be incomplete and more supply agreements may exist than are publicly disclosed. Data for the European Commission do not include bilateral contracts between EU member states and manufacturers. The COVAX R&D portfolio contains 1 billion vaccine doses for which COVAX has first right of refusal as a result of R&D partnership deals. The populations of the COVAX-eligible countries represent the global population minus OECD countries and non-OECD countries with national production capability (Brazil, China, India, Russia).

Source: OECD analysis based on data on vaccine doses published by UNICEF (https://www.unicef.org/supply/covid-19-vaccine-market-dashboard, status 22 January 2021) and OECD population estimates.

Distribution: There are substantial price differences between vaccines



Notes: Prices are averages per dose, calculated by dividing the financial amount committed in supply agreements by the total amount of secured doses. Does not include options or resources allocated to vaccines through arrangements other than supply agreements. Average prices may therefore under- or overestimate true unit prices. Details of the supply agreements are not public.

Source: OECD analysis based on data on vaccine doses published by UNICEF (https://www.unicef.org/supply/covid-19-vaccine-market-dashboard, status 22 January 2021) and OECD population estimates.

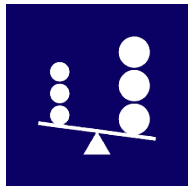
One priority: ensuring faster access to LMIC

- Recent model estimate that faster progress on ending the health crisis will raise global income cumulatively **by $9 trillion over 2020–25, with benefits for all countries - including around $4 trillion for advanced economies** (International Chamber of Commerce Research Foundation).
- It is therefore critical to **facilitate and accelerate IP sharing/know-how transfer** so that overall supply can be increased.
- By Q3 2021, HICs will have large quantities in excess. **These should be transferred rapidly to where the transmission is greatest.** Some countries have already made commitments to share excess vaccine (EU, Canada, Norway).
- COVAX remains the best instrument to facilitate access to the most vulnerable one-fifth of humanity. It has raised just over US$4 billion of its $6.8-billion funding target for 2021, but **countries need to provide (further) financial support to COVAX *urgently.***

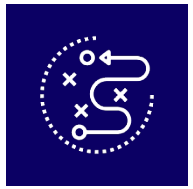
Conclusions

COVID-19 vaccine development has been a massive scientific success

Demand currently outstrips supply, distribution is uneven and poorly coordinated



As a result, access to COVID-19 vaccines remains highly unequal and may not be optimal



Distribution strategies should take into account the need to protect the vulnerable, target ‘hotspots’, increase overall supply to LMICs.

Thank you

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TACKLING CORONAVIRUS (COVID-19)
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BACK-UP SLIDES

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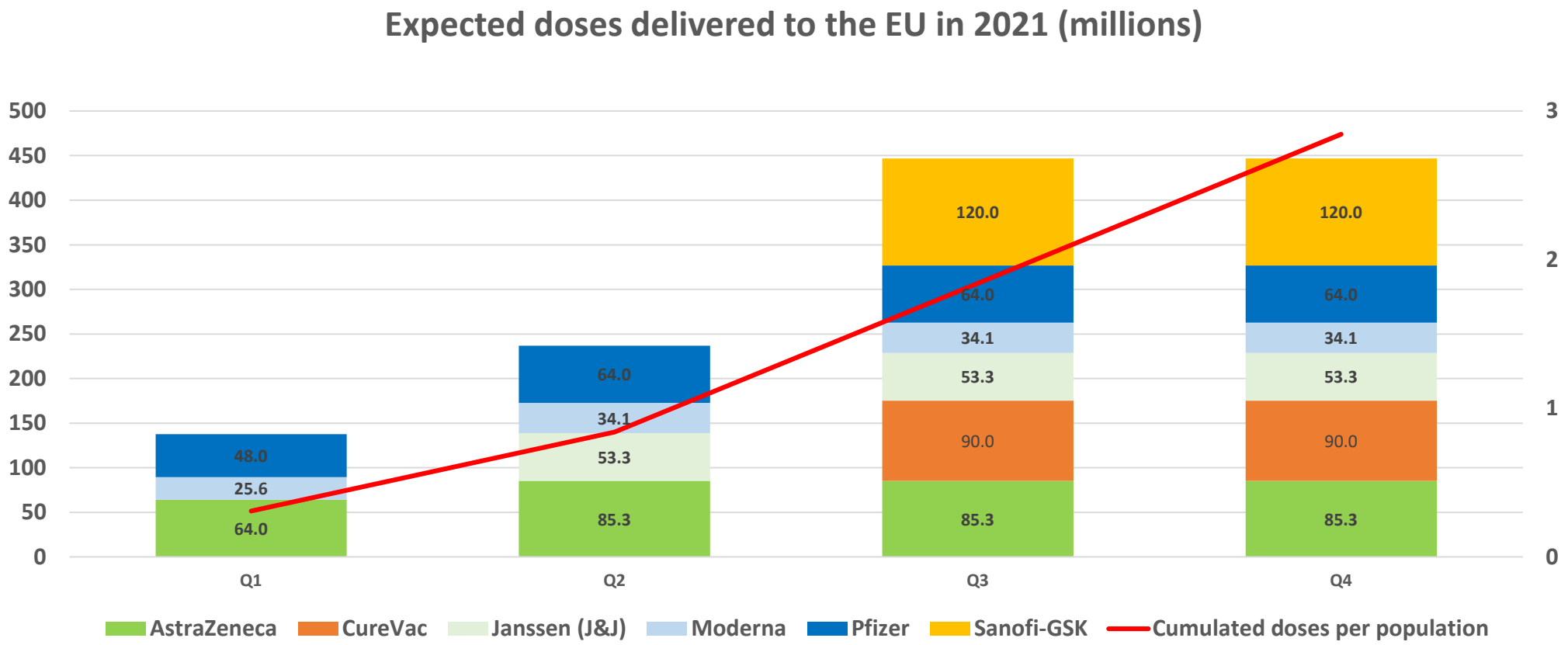
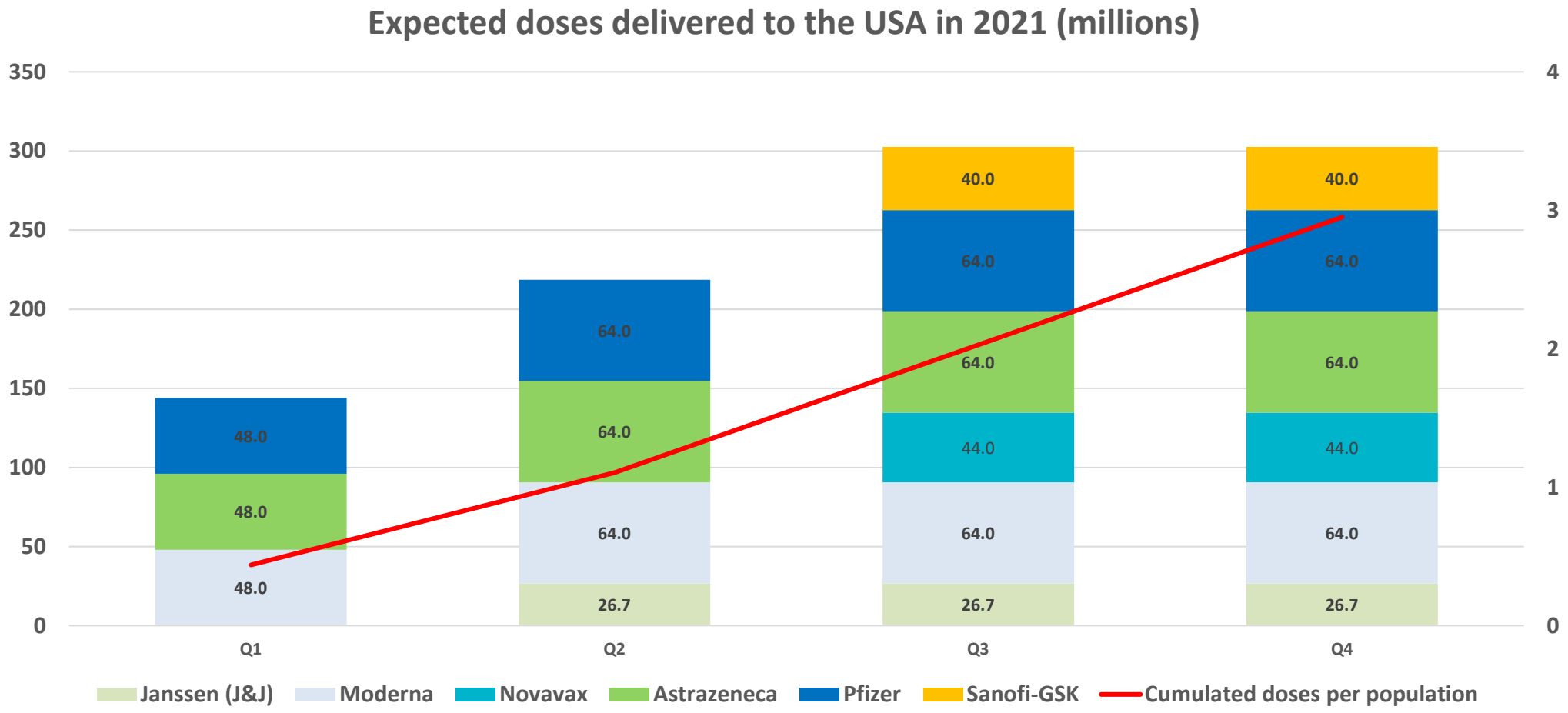
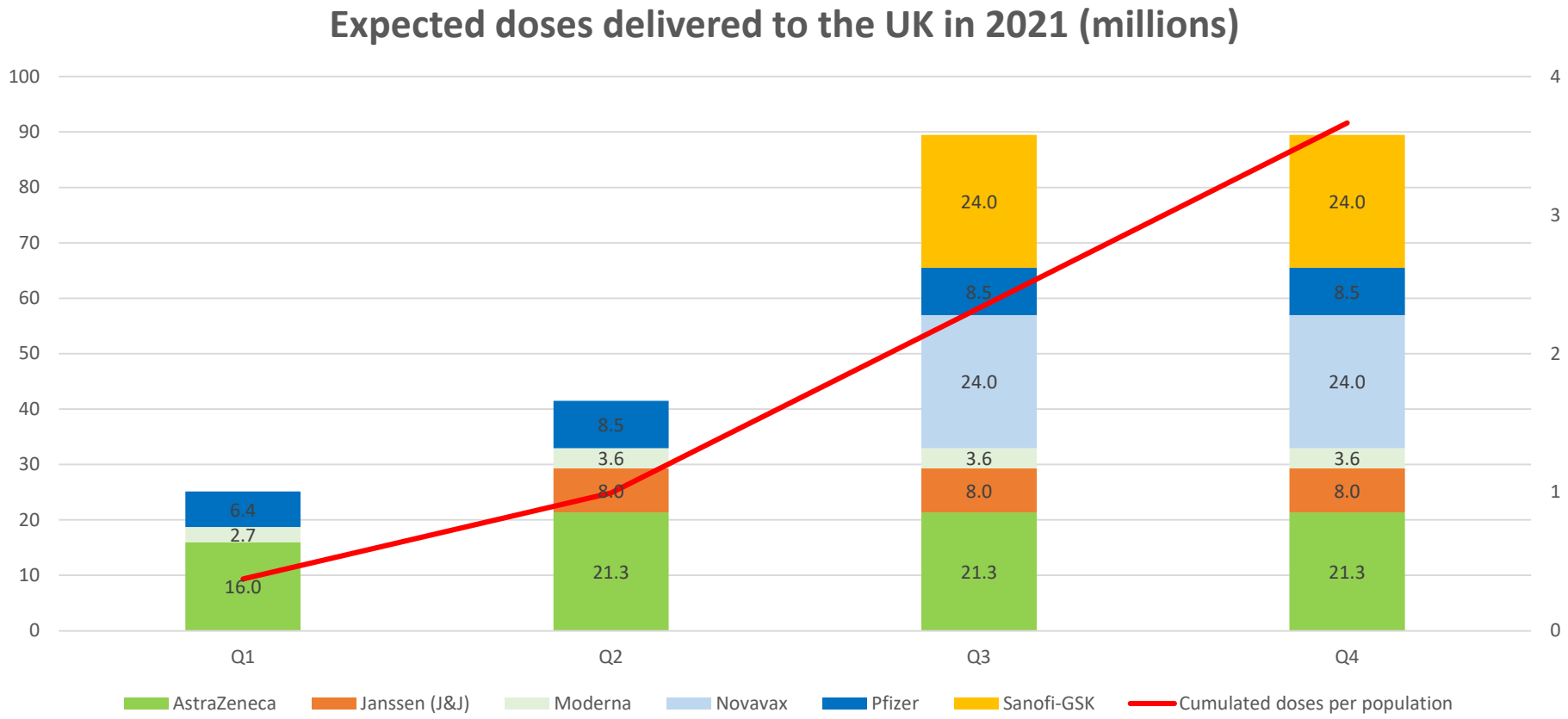
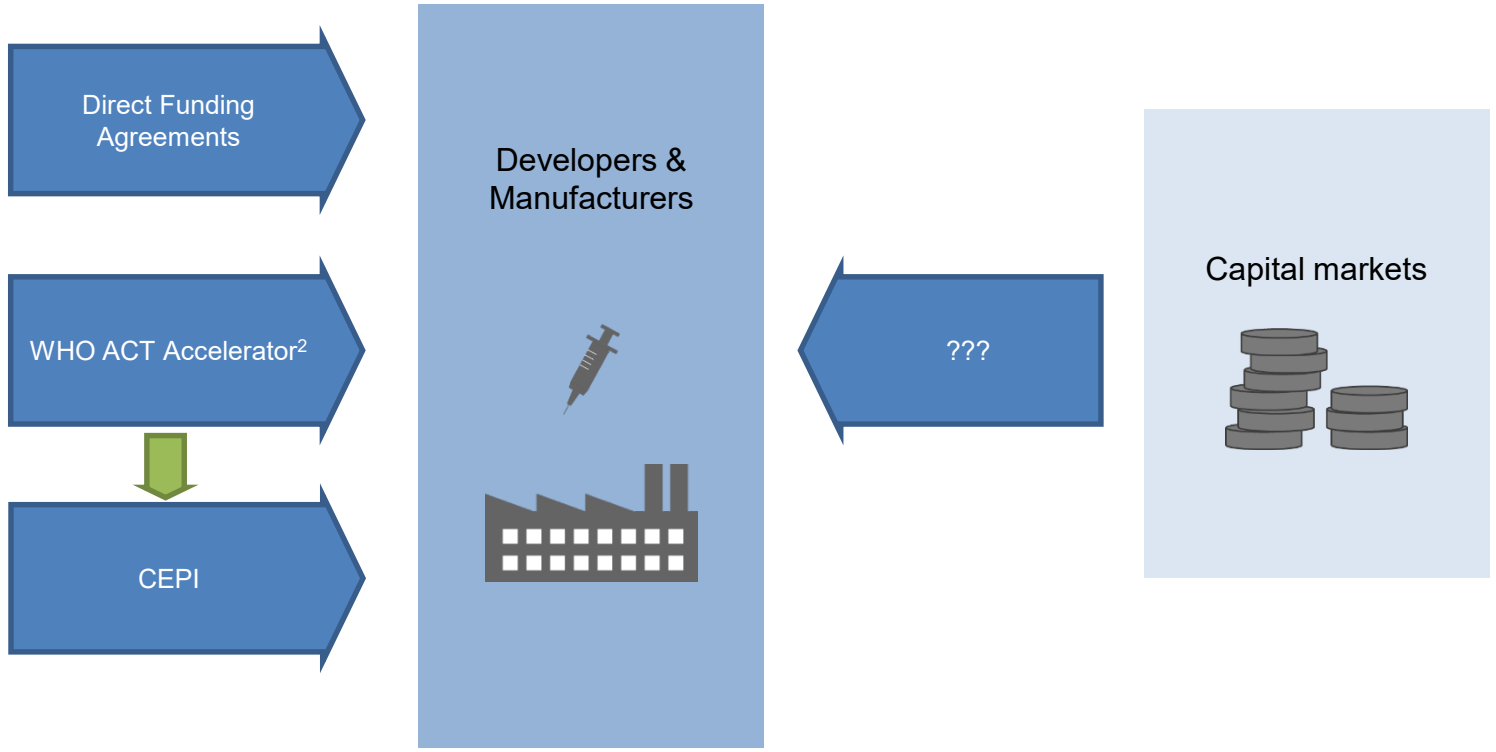

Expected doses delivered to the EU in 2021 (millions)
500
450
400
350
300
250
200
150
100
50
0
3
2
1
0
48.0
25.6
64.0
64.0
34.1
53.3
85.3
120.0
64.0
34.1
53.3
90.0
85.3
120.0
64.0
34.1
53.3
90.0
85.3
Q1
Q2
Q3
Q4
AstraZeneca
CureVac
Janssen (J&J)
Moderna
Pfizer
Sanofi-GSK
Cumulated doses per population


Expected doses delivered to the USA in 2021 (millions)
350
300
250
200
150
100
50
0
4
3
2
1
0
48.0
48.0
48.0
64.0
64.0
64.0
64.0
64.0
44.0
64.0
40.0
64.0
64.0
44.0
64.0
40.0
26.7
26.7
26.7
Q1
Q2
Q3
Q4
Janssen (J&J)
Moderna
Novavax
Astrazeneca
Pfizer
Sanofi-GSK
Cumulated doses per population


Expected doses delivered to the UK in 2021 (millions)
100
90
80
70
60
50
40
30
20
10
0
4
3
2
1
0
6.4
2.7
16.0
8.5
3.6
8.0
21.3
24.0
8.5
24.0
3.6
8.0
21.3
24.0
8.5
24.0
3.6
8.0
21.3
Q1
Q2
Q3
Q4
AstraZeneca
Janssen (J&J)
Moderna
Novavax
Pfizer
Sanofi-GSK
Cumulated doses per population

R&D for development of SARS-CoV-2 vaccines was backed by large amounts of public and philanthropic funding

United States Government *Operation Warp Speed*	USD 10B
European Commission	USD 1.1B
United Kingdom	USD 270M
Norway	USD 214M
Saudi Arabia	USD 176M
Canada	USD 165M
Germany	USD160M
Bill & Melinda Gates Foundation	USD 150M
Japan	USD 134M
Netherlands	USD125M



2. The WHO ACT Accelerator allocates funds to vaccine R&D through CEPI and vaccine procurement through Gavi Covax.

Source: OECD analysis based on public announcements and the Economist Intelligence Unit (2020), COVID-19 Health Funding Tracker, https://covidfunding.eiu.com/explore, status 18 September 2020