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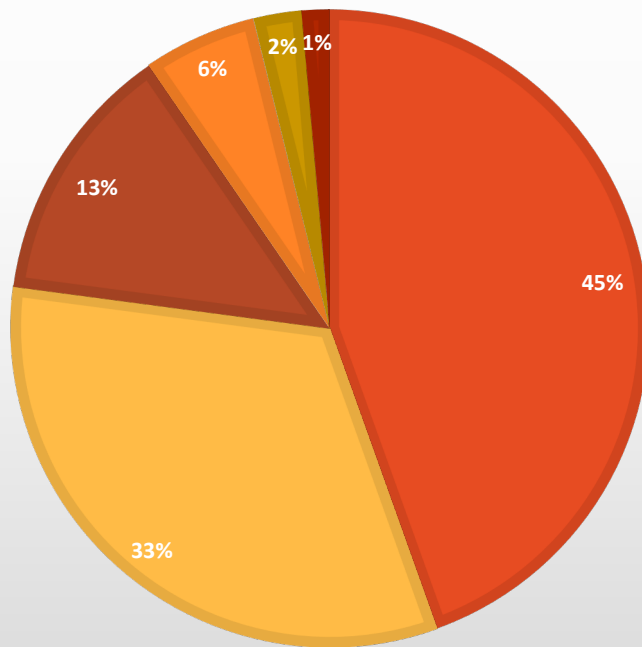


# State of the COVID 19 Vaccination – a Global Perspective

# COVID19: GLOBAL DISTRIBUTION - POLITICAL AND ECONOMIC IMPLICATIONS

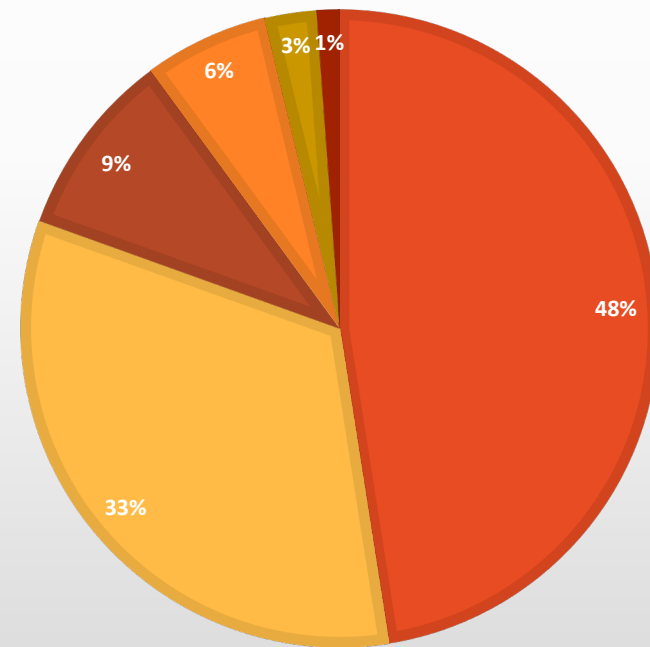
94,124,612 CASES

- Americas
- Europe
- South-East Asia
- Eastern Mediterranean
- Africa
- Western Pacific



2,034,527 DEATHS

- Americas
- Europe
- South-East Asia
- Eastern Mediterranean
- Africa
- Western Pacific



**NOTES - SYNCHRONIZED GLOBAL RECESSION  
SOUTH AFRICA SURPASSED INDIA WEEKLY GROWTH  
NIGERIA IS THIRD LARGEST BURDEN IN AFRICA**
















Source: [WHO Coronavirus Disease \(COVID-19\) Dashboard](#)

Data last updated: 2:55pm CET, 19 January 2021,

# CURRENTLY TESTING 68 VACCINES IN HUMANS

Phases	Action	Number of Vaccines
PHASE 1	Test safety/dosage	41
PHASE 2	Expanded safety trials	22
PHASE 3	Large scale efficacy trials	20
LIMITED	Early use	8
APPROVED	Full Use	2

# LEADING VACCINES

Origin	Developer	How It Works	Phase	Status
	Pfizer-BioNTech	Genetic	2,3	Approved in Saudi Arabia and other countries.
				Emergency use in U.S., E.U., other countries.
	Moderna	Genetic	3	Emergency use in U.S., E.U., other countries.
	Gamaleya	Viral Vector	3	Early use in Russia.
				Emergency use in Belarus, other countries.
	Oxford-AstraZeneca	Viral Vector	2,3	Emergency use in Britain, India, other countries.
				
	CanSino	Viral Vector	3	Limited use in China.
	Johnson & Johnson	Viral Vector	3	
				
	Vector Institute	Protein	3	Early use in Russia.
	Novavax	Protein	3	
	Sinopharm	Inactivated	3	Approved in China, U.A.E., Bahrain.
				Emergency use in Egypt.
	Sinovac	Inactivated	3	Limited use in China, Indonesia.
	Sinopharm-WuXi	Inactivated	3	Limited use in China, U.A.E.
	Bharat Biotech	Inactivated	3	Emergency use in India.

# GENERALLY, GENETIC VACCINES HAVE STRICTER STORAGE REQUIREMENTS

Company	Efficacy	Dosage	Storage
Pfizer	95%	2 doses, 3 weeks apart	Freezer storage only at $-94^{\circ}\text{F}$ ( $-70^{\circ}\text{C}$ ), and then five days at refrigerated $2-8^{\circ}\text{C}$ conditions.
Moderna	94.50%	2 doses, 4 weeks apart	30 days with refrigeration, 6 months at $-4^{\circ}\text{F}$ ( $-20^{\circ}\text{C}$ )
Sinopharm	79.3	2 doses, 2 weeks apart	Refrigerated
Sinovac	50.40%	2 doses, 2 weeks apart	Refrigerated
Gamaleya	91.40%	2 doses, 3 weeks apart	Freezer storage. Developing an alternative formulation that can be refrigerated.
Astrazeneca /SII	62-90%	2 doses, 2 weeks apart	Stable in Refrigerator for at least 6 months
J &J	Unknown	1 dose	Up to two years frozen at $-4^{\circ}\text{F}$ ( $-20^{\circ}\text{C}$ ), and up to three months refrigerated at $36-46^{\circ}\text{F}$ ( $2-8^{\circ}\text{C}$ ).

Note. Efficacy Rates of Russian and Chinese Vaccines of Phase 3 not made publicly available but efficacy results from Chinese vaccines from Brazil, Turkey, UAE

Source: Coronavirus Vaccine Tracker by Carl Zimmer, Jonathan Corum and Sui-Lee Wee. Updated Jan. 14, 2021, New York Times

# SELECTED COUNTRIES WITH MORE THAN 1 MILLION DOSES ADMINISTERED

<b>Country</b>	<b>No. of doses adm</b>	<b>Per 100 people</b>
<i>Global total</i>	<i>42,224,141</i>	—
U.S.	14,306,422	4.36
China	10,000,000	0.71
<i>EU</i>	<i>5,272,355</i>	<i>1.19</i>
U.K.	4,307,002	6.45
Israel	2,345,250	25.91
U.A.E.	1,882,778	17.52
Russia*	1,500,000	1.02
Italy	1,147,373	1.9
Germany	1,048,160	1.26

# TRENDS ON VACCINE CONTRACTS

- Rich countries have accumulated extensive supply deals, and ultra-cold storage requirements that make some vaccines difficult to deliver to more challenging environments. Strategies to secure vaccines varied widely.
- Wealth has moved countries to the front of the line. For example, Canada, with its population of 38 million, has contracts with at least seven companies to supply enough vaccines for 112 million people—and that doesn't include vaccines it agreed to buy through the Covax consortium.
- The U.S. struck unilateral deals for all of its supply. Dozens of other countries will get vaccines through Covax, a consortium backed by the World Health Organization, GAVI and CEPI to ensure equitable vaccine distribution.
- An arrangement with Astrazeneca brokered by Mexican billionaire Carlos Slim will deliver cheap vaccines throughout most of Latin America
- India, which has deals to manufacture 2.2 billion doses, plans to send vaccines to other countries in its region and key strategic partners of India. SII (manufacturing AZ and Novax vaccines) indicated that 100 million doses of the vaccine were being sold to the Indian government at a “special price” of \$2.74 per dose, after which prices would be higher. The vaccine will be sold on the private market at \$13.68 per dose.
- Poonawalla (SII) said his company was planning to give 200 million to 300 million doses of the vaccine to COVAX by December 2021. He acknowledged that the company would have to balance distribution of vaccines between India and COVAX
- The African Union announced a commitment of a provisional amount of 270 million vaccines from three major suppliers: Pfizer, AstraZeneca (through Serum Institute of India) and Johnson & Johnson,. At least 50 million expected between April – June 2020.

# 8.33 BILLION DOSES HAVE ALREADY BEEN SET ASIDE- ENOUGH TO COVER MORE THAN HALF THE WORLD'S POPULATION

Country/Reg	No. of people covered	No. of people covered as % of popula	
Canada	113,876	304%	
U.K.	201,840	302%	
New Zealand	12,156	247%	
Australia	58,676	230%	
Austria	16,255	184%	(all of EU sin
U.S.	555,000	169%	
Israel	12,453	138%	
Japan	151,310	120%	
Mexico	152,003	119%	
Uzbekistan	36,663	110%	
Nepal	26,423	93%	
South Korea	46,585	90%	
Chile	16,409	86%	
India	1,168,381	85%	
Dominican R	7,363	71%	
Brazil	133,508	64%	
Egypt	60,591	61%	
Panama	2,462	58%	
Russia	80,000	55%	
Indonesia	133,346	50%	
Ecuador	8,439	49%	
Bolivia	5,235	45%	
U.A.E.	3,851	36%	
Serbia	2,348	34%	
Algeria	2,171	5%	(Most of Afri



# COVAX FACILITY

- COVAX is co-led by Gavi, the Coalition for Epidemic Preparedness Innovations (CEPI) and WHO. Its aim is to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world.
- 92 Eligible Lower and Middle Income Countries for financing – 86 submitted detailed request. Initial dosage for health workers by Q2 and 20% of population by Q4. Needs to raise \$6.8 billion in 2021
- 170 million doses of the AstraZeneca/Oxford candidate, via an advance purchase agreement
- 200 million doses (and options for up to 900 million more) of the AstraZeneca/Oxford or Novax candidates
- 500 million doses of the J&J candidate, via a memorandum of understanding with 200 million doses of the Sanofi/GSK vaccine candidate, via a statement of intent
- First right of refusal for a potential combined total of over 1 billion doses in 2021 of promising vaccine candidates, via R&D partnership agreements with CEPI - that will be produced, subject to technical success and regulatory approval, by candidates in the COVAX R&D Portfolio.
- As part of the COVAX R&D portfolio, CEPI has invested in 10 vaccine candidates. 7 are in clinical trials (4 in Phase 3) and 1 failed candidate.