



Equity and Efficiency in Post-Covid Health System: The Balancing Act?

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Outline

- Definitions of Efficiency and Equity in Health Care
- Economic Impact of Covid-19 Pandemic
- Cost managing Covid-19 Pandemic
- Stimulation Packages During Pandemic
- Impact on Equity and Efficiency
- Covid-19 Corruptions: Trends and Drivers

Conclusion







What Efficiency?

• Measures whether healthcare resources are being used to get the best value for money

 Ability to achieve maximum health outcome from a given resources allocated for health care

Three Types of Efficiency

Technical Efficiency

• Achieved when the maximum possible improvement in outcome is obtained from a set of resource inputs

Allocative Efficiency

- Concerns with how efficient are the outcome being distributed in the society
- Achieving right mixture of health programmes to maximise the health of society

Productive Efficiency

• Refers to the maximisation of health outcome for a given cost, or the minimisation of cost for a given outcome.









- Concept of Fairness and Justice
 Different for Equality
- Different for Equality
 - Equality means each individual or group of people is given the same resources or opportunities.
- Equity recognizes that each person has different circumstances and allocates the exact resources and opportunities needed to reach an equal outcome.









Lack of Funding for Health and Covid-19
Lack of Trained Human Resource
Lack of Information and Evidence for Actions
Negative impact on delivery of health services
Weakness in Leadership and Governance



Cost of Managing COVID-19 pandemic is substantial

Devastating impact on Global Economy

- GDP contracts
 - 7% of the first half of 2020
 - 2.8% for the whole 2020
- Global Cost of the Pandemic
 - USD 1 trillion (UNCTAD)
 - USD 6 trillion (Loss of 10% values of stock)



Socio-Economic Impact of Covid-19



INTERNATIONAL MEDICAL UNIVERSITY MALAYSIA

- GDP Contraction : 5.6%
- GDP value losses : 38 billion 102 billion
- Loss of Jobs: 951,000 to 2.4 million
- Household Income losses: 41 billion-95 billion
- SME: 68.9% Very Negative Impact due to MCOs
- Loss of Jobs due to MCOs
 - Agriculture: 22%
 - Service: 15%
 - Industry: 7%
- Drop in Income
 - Agriculture: 70%
 - Service: 54%
 - Industry: 47%





Cost of Covid-19 Pandemic

	World	AEs	EMEs	LIDCs	LatAm
Lost 2020 global GDP from Covid-19	6.7%	6.5%	7.0%	4.8%	8.5%
Lost 2021–30 global GDP from Covid-19					
discounted at 0%	47.9%	13.8%	76.7%	87.6%	84.3%
GDP loss 2020-30 (discounted at 0%)	54.6%	20.3%	83.8%	92.4%	92.8%





Table 1. Estimated Global and Regional Economic Losses of COVID-19 Without or with Policy Measures.

	Losse	es Without I	Policy Meas	sures	Los	ses with Polic	y Measures	5
	In US\$	billion	As % c	of GDP	In US\$	billion	As % c	of GDP
Containment	3 Months	6 Months	3 Months	6 Months	3 Months	6 Months	3 Months	6 Months
Global	-5,796.9	-8,789.9	-6.4	-9.7	-4,095.8	-5,387.8	-4.5	-5.9
Asia	-1,667.8	-2,529.1	-6.2	-9.3	-1,328.6	-1,854.3	-4.9	-6.8
Australia/New Zealand	-91.2	-139.5	-4.6	-7.0	-81.0	-119.1	-4.1	-6.0
Central Asia	-21.1	-34.0	-3.4	-5.5	-11.4	-14.8	-1.8	-2.4
East Asia ex PR China	-164.1	-256.	-6.0	-9.3	-145.6	-220.0	-5.3	-8.0
PR China	-1,083.1	-1,623.4	-7.5	-11.2	-833.8	-1,126.8	-5.8	-7.8
Southeast Asia	-163.2	-252.9	-4.6	-7.2	-119.6	-166.3	-3.4	-4.7
South Asia	-141.9	-217.6	-3.9	-6.0	-134.3	-202.9	-3.7	-5.6
Pacific	-3.3	-5.0	-4.6	-7.0	-2.9	-4.3	-4.1	-6.0

Source: ADB (2020).

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Global Losses due to Covid-19 Pandemic

 Table 2
 Estimated global and regional losses due to COVID-19 (relative to a no-COVID baseline)

	GDP (%)		GDP (\$ billions)	
	Shorter Longer containment containment		Shorter containment	Longer containment
World	-7.1	-10.5	-6065.7	-9051.6
Developing Asia	-5.7	-8.5	-1309.8	-1955.4
Central Asia	-8.6	-12.7	-31.1	-46.3
East Asia	-5.1	-7.6	-820.5	-1227.2
Southeast Asia	-7.2	-10.6	-213.0	-315.4
South Asia	-7.0	-10.4	-243.6	-364.1
The Pacific	-4.8	-7.1	-1.7	-2.4
United States	-8.0	-12.0	-1646.6	-2461.8
Europe	-9.1	-13.6	-1715.1	-2556.6
Rest of the World	-5.9	-8.8	-1394.2	-2077.7

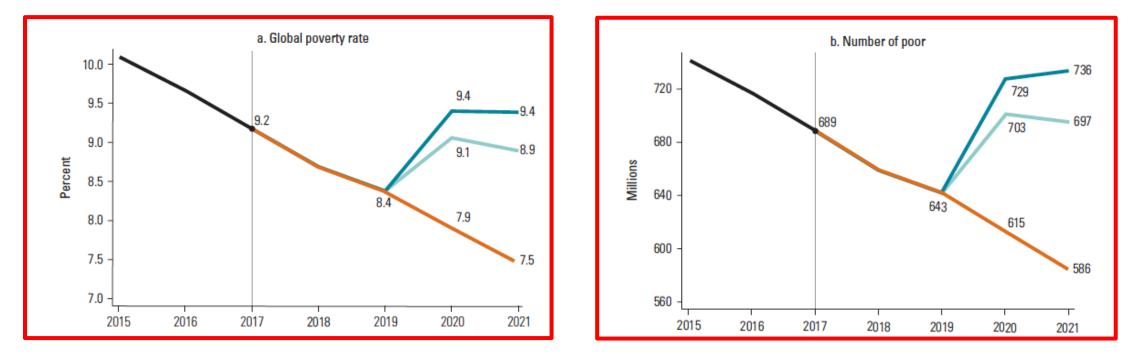
Source: Authors' estimates.

Source: Arao A et al (2020) Covid-19 in Developing Economies. CEPR Press



casemix solutions Impact of Covid-19 on Poverty





- COVID-19-downside COVID-19-baseline Pre-COVID-19



Cost of Treating Case of COVID-19 (MY-DRG A-14-3-I/II/III) in Malaysia

Severity Level	RM	% Percapita GDP
Ι	2,099	4.0
II	2,679	5.1
III	3,215	6.1





Cost of Treating Case of COVID-19 (With Ventilator) (MY-DRG J-1-02-I/II/III) in Malaysia



Severity Level	RM	% Percapita GDP
Ι	30,428	58.0
II	42,368	80.8
III	69,964	133.5



Cost of ICUs



	Unit	The total Cost	Patient days	Unit Cost
1	GICU	25,344,333	4,909	5,163
2	CICU	1,625,365	361	4,502
3	CCU	5,304,947	2,575	2,060
4	PICU	3,288,463	1,975	1,665
5	Medicine	55,269,370	51,167	1,080
6	Surgery	65,796,242	28,753	2,288
7	Pediatrics	38,937,649	32,010	1,216
8	O&G	36,422,795	24,095	1,512



Post Pandemic: Impact on Health System



Delivery of services to manage Long Covid

- Mental Health Services
- Other Non-Communicable Diseases
- Impact of Health Budget
 - Post pandemic Economic Recessions
- Impact on Universal Health Coverage
- Need for Health Sector Reform
 - National Health Financing
- Health Human Resource Management



casemix^{solutions} 16 Health System Response to Covid-19 (WHO-EURO)

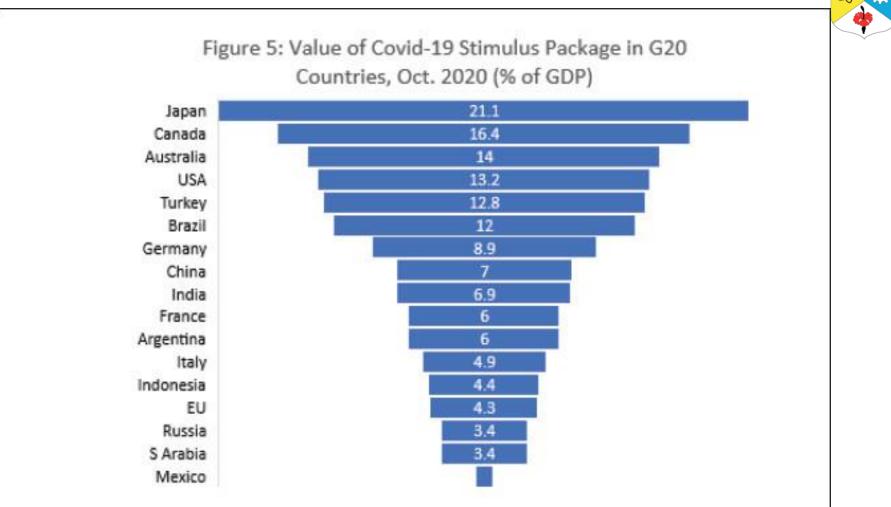


1. Expand capacity for communication and proactively manage media relations.	2. Bolster capacity of essential public health services to enable emergency response.	3. Clarify first-point-of- contact strategy for possible COVID-19 cases: phone, online, physical.	4. Protect other potential first contact health system entry points.
5. Designate hospitals to receive COVID-19 patients and prepare to mobilize surge acute and intensive care unit (ICU).	6. Organize and expand services close to home for COVID-19 response.	7. Maintain continuity of essential services while freeing up capacity for COVID-19 response.	8. Train, repurpose and mobilize the health workforce according to priority services.
9. Protect the physical health of frontline health workers.	10. Anticipate and address the mental health needs of the health workforce.	11. Review supply chains and stocks of essential medicines and health technologies.	12. Mobilize financial support and ease logistical and operational barriers.
13. Assess and mitigate potential financial barriers to accessing care.	14. Assess and mitigate potential physical access barriers for vulnerable groups of people.	15. Optimize social protection to mitigate the impact of public health measures on household financial security.	16. Ensure clarity in roles, relationships and coordination mechanisms in health system governance and across government.

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Economic Stimulation Packages (Malaysia 2021)

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SIA

	PROGRAMME	RM BILLION
	PRIHATIN	250.0
1	Loan Moratorium	100.0
2	Danajamin: Financing Guarantee Scheme	50.0
3	EPF: i-Lestari Scheme	40.0
4	Bantuan Prihatin Nasional	10.0
5	EPF: Employer Advisory Services	10.0
6	Wage Subsidy Programme	5.9
7	BNM: Facilitation Fund	4.0
8	Small Infrastructure Projects	2.0
9	Healthcare (COVID-19)	1.5
10	Food Security Fund	1.0
11	Micro Credit Scheme	0.5
12	Assistance for Tertiary Students	0.3
13	Other PRIHATIN Measures	5.1
14	Economic Stimulus Package	19.7
	PRIHATIN Plus	10.0
15	Additional Wage Subsidy Programme (enhancement of the existing programme)	7.9
16	Geran Khas PRIHATIN	2.1
	PENJANA	35.0
17	Initiatives to Empower the People	13.2
18	Initiatives to Propel Businesses	9.7
19	Initiatives to Stimulate the Economy	6.7
20	Other PENJANA Measures	5.4
	KITA PRIHATIN	10.0
21	Bantuan Prihatin Nasional 2.0	7.0
22	Wage Subsidy Programme 2.0	2.4
23	Geran Khas PRIHATIN	0.6
	GRAND TOTAL	305.0



Economic Stimulation Packages (Malaysia 2021)





- 35 initiatives and sub-initiatives
- RM 15 Billion
- PEMERKASA
 - 49 Long-term initiatives
 - RM 20 Billion

♦ PEMULIH

- 16 Long-term and 32 Short-term initiatives
- Food Basket through members of Parliament
- RM 150 billion







Impact on Efficiency and Equity

- Corruptions and Abuse of power
 - Rampant in health system during pandemic
 - Government more lenient to approve purchases for emergency use
 - Vendors bribed government officials to get contracts
 - Delivers poor quality product
 - And a set of the set o







- Petty Corruption in Service Delivery
- Procurement Corruption and Embezzlement Affecting Health Financing
- •Grand corruption weakening health governance and leadership
- Growing black markets, falsified medical products and lack of clinical trial transparency
- Data manipulation and misuse affecting health management information systems
- Opacity and corruption in health workforce governance, recruitment, and management







- Petty Corruption in Service Delivery
 - Sales of falsified Covid test certificates
 - Bribing healthcare staff to get falsified certificates
 - Bribes and queue-jumping to access Covid-19 vaccines
 - Price gouging and profiteering rose in critical times (Oxygen Supplies, Access to Hospital Beds)







 Procurement Corruption and Embezzlement Affecting Health Financing

- Most common form of Corruptions
 - Africa: US\$1.78 billion wand lost in corrupt procurement deals
 - Cameroon (333 million); Malawi (1.3 million); South Africa (910 million), Kenya (541 million)
 - Malaysia: MACC opened 25 investigations over alleged corruption in Covid-19-related procurements and the distribution of aid and stimulus packages during the pandemic
 - UK: Purchase of personal protective equipment (PPE) were awarded to firms that were part of a special 'VIP lane' (3.7 billion pounds worth of contracts warranting further investigation Copyright of SyedAljunid©



casemix solutions Corruption in Health System during pandemic





News | Corruption

Malaysia's ex-PM Muhyiddin Yassin charged with corruption

Former leader faces trial on charges of money laundering and abuse of power over COVID-19 contracts.



Corruption in Health System during pandemic



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MACC probes 25 cases linked to Covid-19 management

Previously, Azam Baki revealed that MACC was probing alleged corruption, malpractice and abuse of power in Covid-19-related procurements.

FMT Reporters - 02 Jun 2022, 12:51pm





Covid-19 Corruptions: The Trends

Grand corruption weakening health governance and leadership

- Vietnam:
 - Charged astronomical fees for repatriation flights, fixed prices for emergency healthcare and equipment, and violated regulations on bidding for service (USD 240 million)

Brazil:

- Ministry of Health attempting to buy the Covaxin vaccine, through intermediate buyers, at above-market prices
- Request kick-backs from drug companies for purchase of vaccines



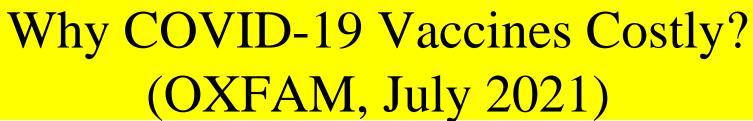




- Grand corruption weakening health governance and leadership
 Bolivia:
 - Minister of Health was arrested over allegedly buying overpriced ventilators, each at a price of US\$27,683 despite its real cost being US\$10,312–11,941 in 2020
 - Zimbabwe:
 - Minister of Health was detained over corruption allegations in the procurement of Covid tests and medical equipment, amounting to US\$60 million in 2020.









•Cost of vaccines is 5 times more expensive because of Monopoly

- Pfizer/BioNTech and Moderna
 - charged governments as much as \$41 billion above the estimated cost of production
 - 24 times production cost
- Columbia
 - Overpaid Covid-19 vaccines by USD 375 million
- African Union
 - USD 6.75 per dose (Pfizer/BioNTech)
 - 6 times potential production cost
- South Africa
 - USD 30-42 per dose (Moderna)
 - 15 times potential production cost





How much is the Cost of Vaccines?

Reported Price/Dose for COVID-19 Vaccines

Vaccine candidate	Min. Price/Dose	Max. Price/Dose	Number of Arrangements with Estimated Prices
Sinovac	\$1.95	\$18.00	2
AstraZeneca/Oxford	\$2.50	\$8.00	18
Bharat Biotech	\$4.01	\$14.30	2
Pfizer/BioNTech	\$6.75	\$23.50	9
Johnson & Johnson	\$8.50	\$10.00	3
Valneva	\$8.58	\$8.58	1
Sanofi/GSK	\$9.30	\$10.50	2
Gamaleya	\$9.75	\$9.75	22
Curevac	\$12.30	\$12.30	1
Moderna	\$15.00	\$18.00	2
Novavax	\$16.00	\$16.00	1
Sinopharm/Beijing	\$18.55	\$35.72	3
Arcturus/Duke NUS	\$68.75	\$68.75	1







Why COVID-19 Vaccines Costly?

High Demand

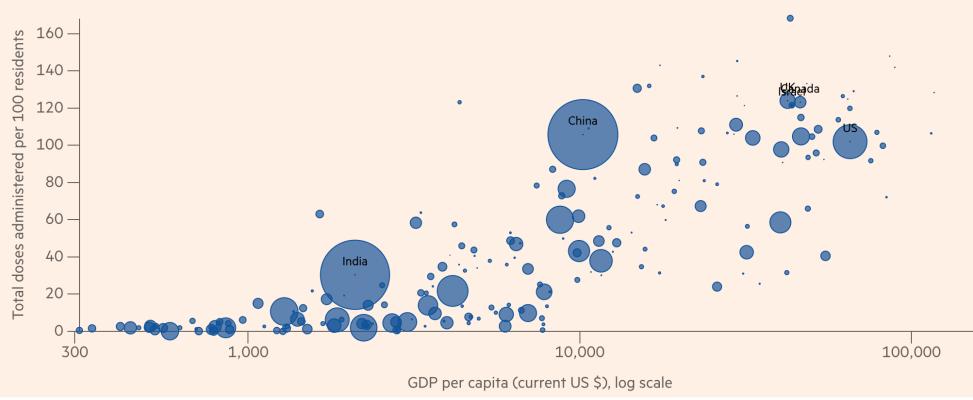
- Limited suppliers with advance technology
- Strict Quality Control
- Regulations on Registration
- Price Monopoly by Limited Producers
- No transparency in production cost
- Potential Corruptions and Abuses

Casemix solutions Rich Countries Dominate Vaccination Coverage



High income countries are ahead on vaccinations

Progress on vaccinations by GDP per capita, circle size represents population



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Covid-19 Corruption: The Drivers

Economic Drivers

- Increase in financing with limited management capacity
- Increase demand and limited supply

Political/Institutional Drivers

- Poor preparedness and planning
- Lack of transparency
- Breakdown of safeguarding systems
- Poor management of conflict of interest
- Poor and unreliable data information systems

Social Drivers

- Constraints civil space during pandemic
- Social pressure and desperations









Covid-19 Pandemic had global impact on all sectors of economy

- Heath Sector is probably the most vulnerable during and after the pandemic
- Hugh amount of resources were spend on economic simulation packages were aimed at addressing is
- Corruption is one of the major reasons for inefficiency and inequity in Covid-19 pandemic control actions
- Economic, Political and Social pressures are the drivers for Covid-19 corruptions.





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