

The multifaceted health impacts of COVID-19 pandemic

Valerie Gilbert Ulep

Senior Research Fellow

Philippine Institute for Development Studies

Many countries have experienced decline in the use of essential healthcare services...

- Detectable decline in maternal and child health services, such as prenatal care, institutional delivery in African countries (Shapira et al, 2021)
- Decline in hospital admissions in the United States (20-40% decline) (Birkmeyer, et al., 2020)
- Decline in TB, maternal and Child Health, and Reproductive Health services in South Asia (Riley et al., 2021)
- Many more..

In the Philippines, capturing the magnitude of decline in essential healthcare services during the pandemic was challenging...

- *No electronic medical record (EMR)*. Lack of consolidated data from hospitals (private and public) and primary care providers (e.g., clinics, rural health units)
- *Poor surveillance reporting*. Late submission of surveillance data from local governments (2 years late) – aggregated; yearly
- *No one was interested?*

Methodology (1): Magnitude of decline in healthcare services (non-COVID)

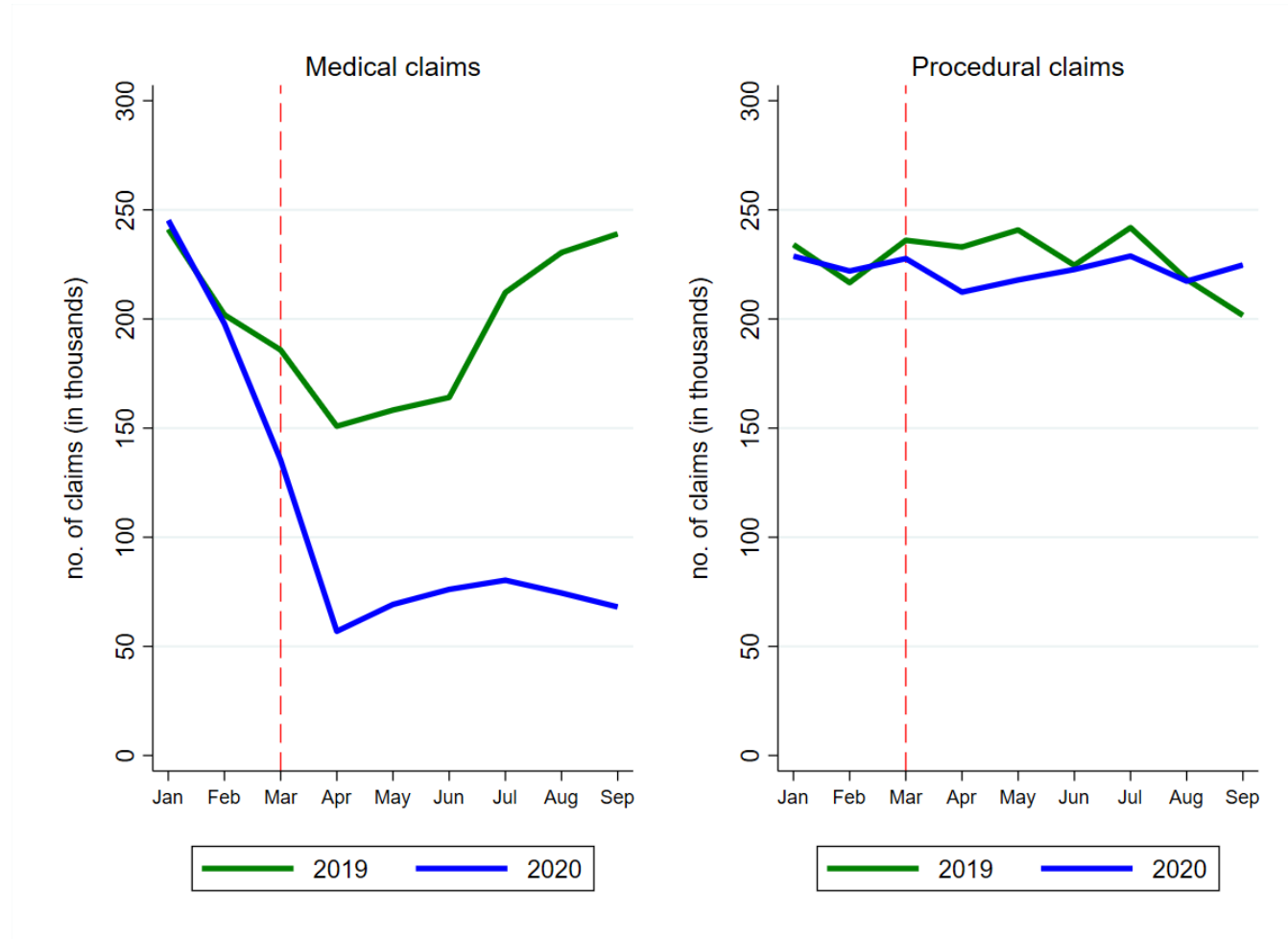
- Datasets:
 - PhilHealth claims data from 1200 hospitals(12 diseases which accounts for about 80% of the total disease burden; 5 procedural claims)
 - Admissions data from selected government hospitals (60/410)
 - Hospital survey through DOH (developed by PIDS researchers)
 - Consultations data from selected rural health units (114/2,500)
 - Hospital survey through DOH (developed by PIDS researchers)
- Methodology:
 - Monthly and quarterly trends
 - Seasonally-adjusted

Methodology 2: Direct and indirect costs (COVID and non-COVID)

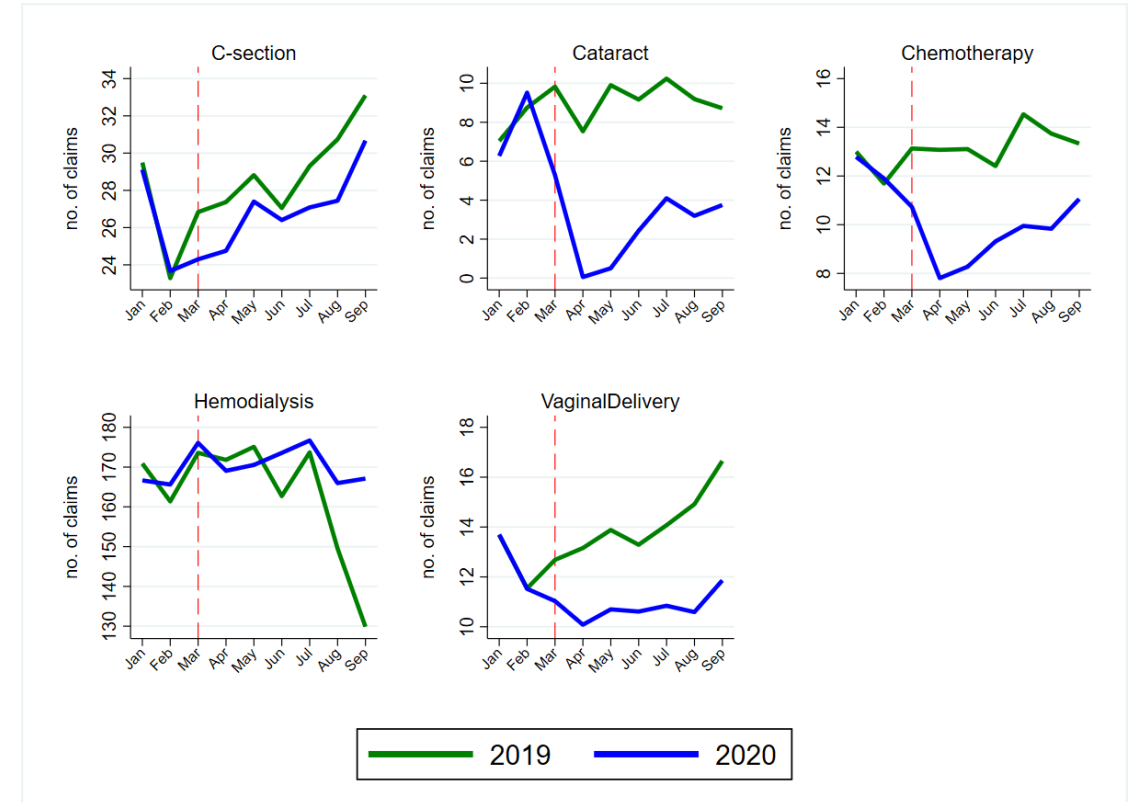
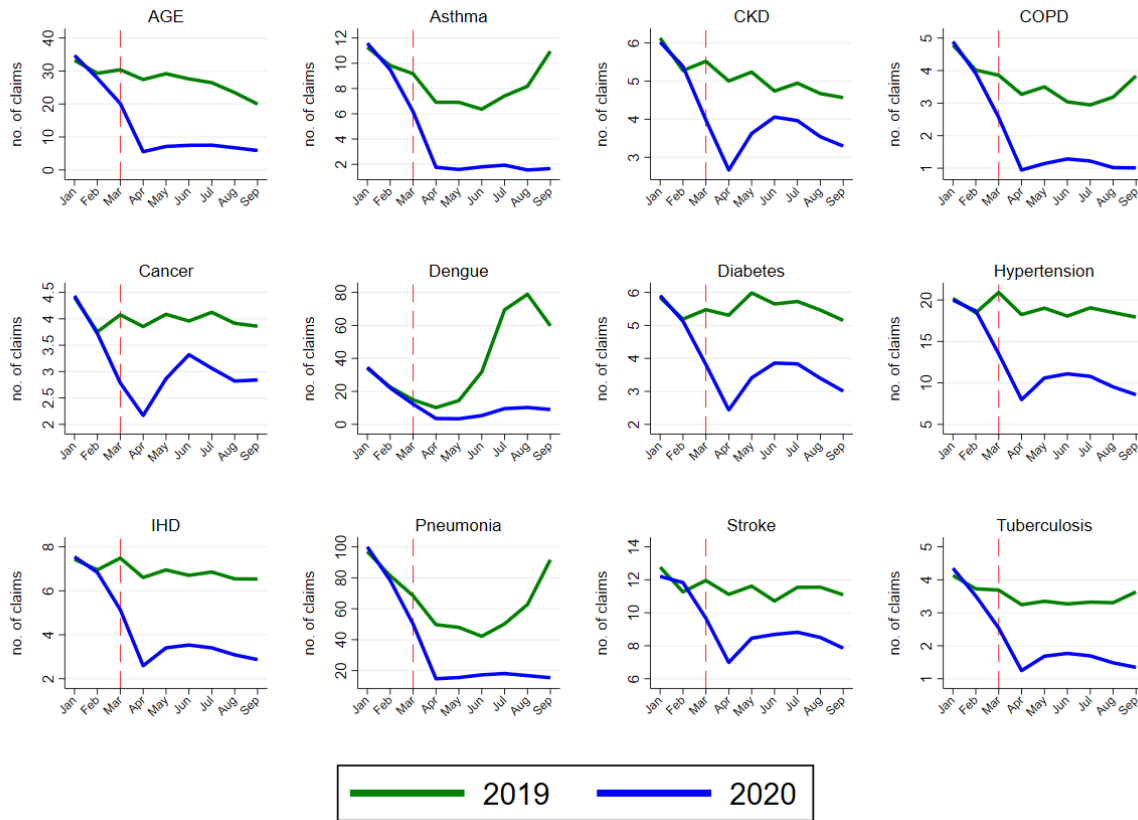
Estimated the DALYs (Disability Adjusted Life Years)

- Years Life Lost due to COVID-19 premature deaths (DIRECT)
- Years Lost due to disability due to COVID-19 morbidity (DIRECT)
- Years Life Lost due to delayed care (INDIRECT)
- Years Lost due to disability due to Non-COVID morbidities (including new illnesses and risk due to COVID policy) (INDIRECT)
 - Mental Health
 - Child immunization
 - Food insecurity
 - Missed HIV/TB treatment
 - Increased metabolic risk
 - Physical inactivity

Precipitous decline in PhilHealth claims in the first year of the pandemic



Healthcare for high-burden diseases sharply declined during the first year of the pandemic. The poorest population suffered the largest decline



Decline by hospital ownership and poverty incidence

Medical claims

Ownership and level	Monthly change (%) March to September 2020
Level 1 (Public)	-59%
Level 2 (Public)	-62%
Level 3 (Public)	-62%
Level 1 (Private)	-48%
Level 2 (Private)	-55%
Level 3 (Private)	-63%

Province SES	Monthly change (%) March to September 2020
Richest 20%	-59%
Rich	-62%
Middle	-62%
Poor	-48%
Poorest 20%	-55%

Procedural claims

Ownership and level	Monthly change (%) March to September 2020
Level 1 (Public)	1%
Level 2 (Public)	-5%
Level 3 (Public)	-27%
Level 1 (Private)	7%
Level 2 (Private)	3%
Level 3 (Private)	1%

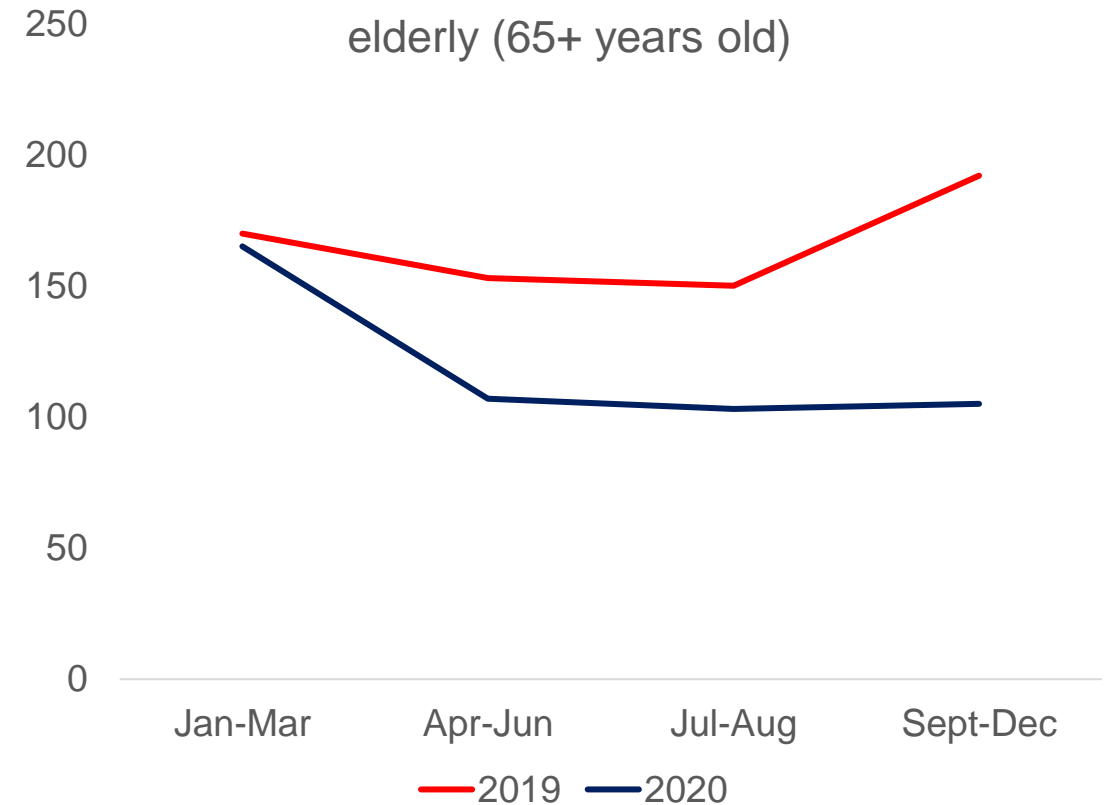
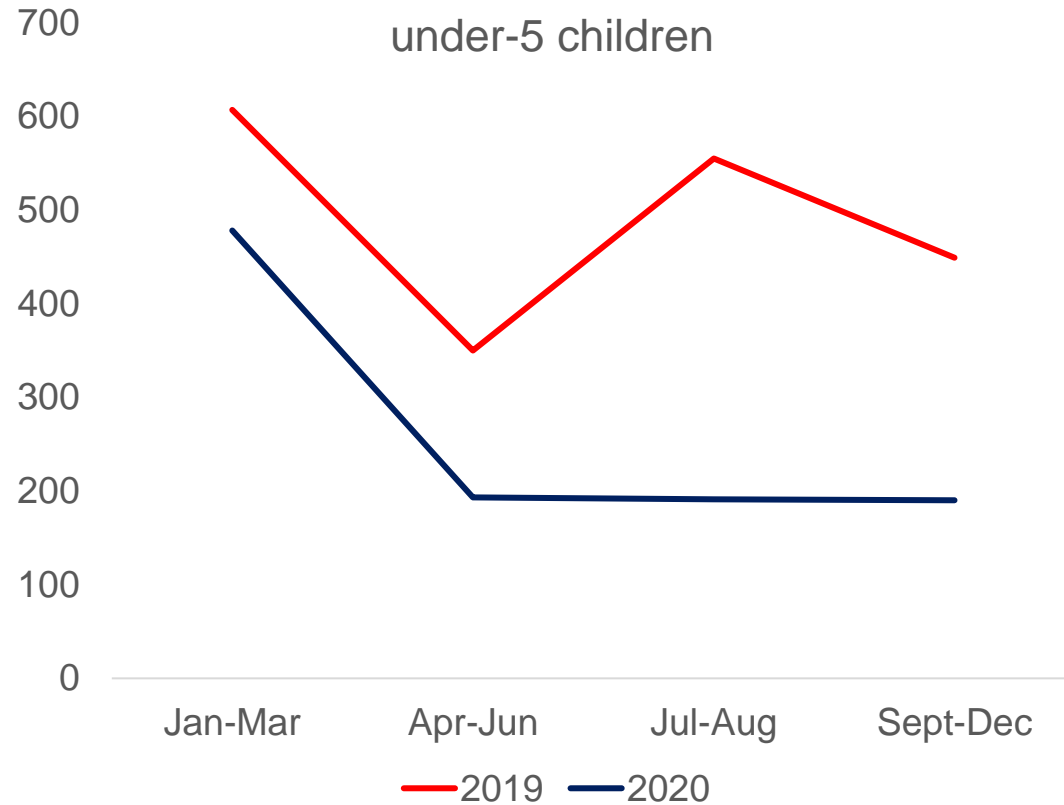
Province SES	Monthly change (%) March to September 2020
Richest 20%	-1%
Rich	-8%
Middle	-6%
Poor	9%
Poorest 20%	0%

Precipitous decline in hospital admissions as well; note decline in pediatric admissions



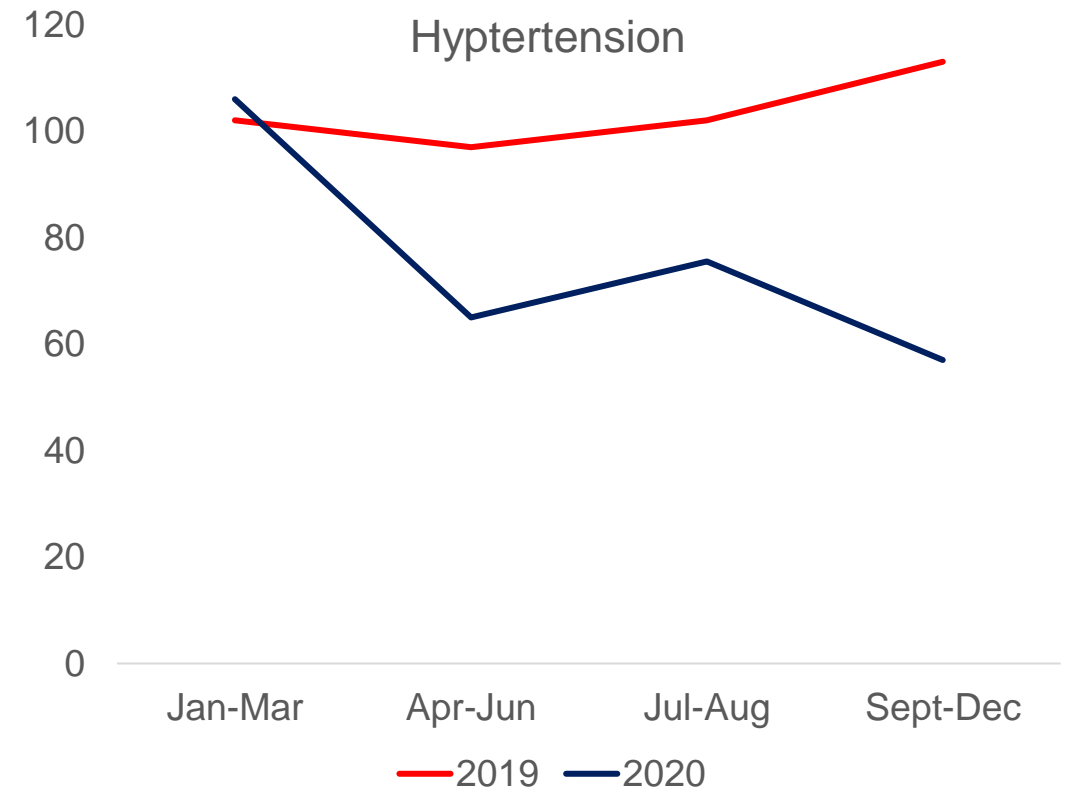
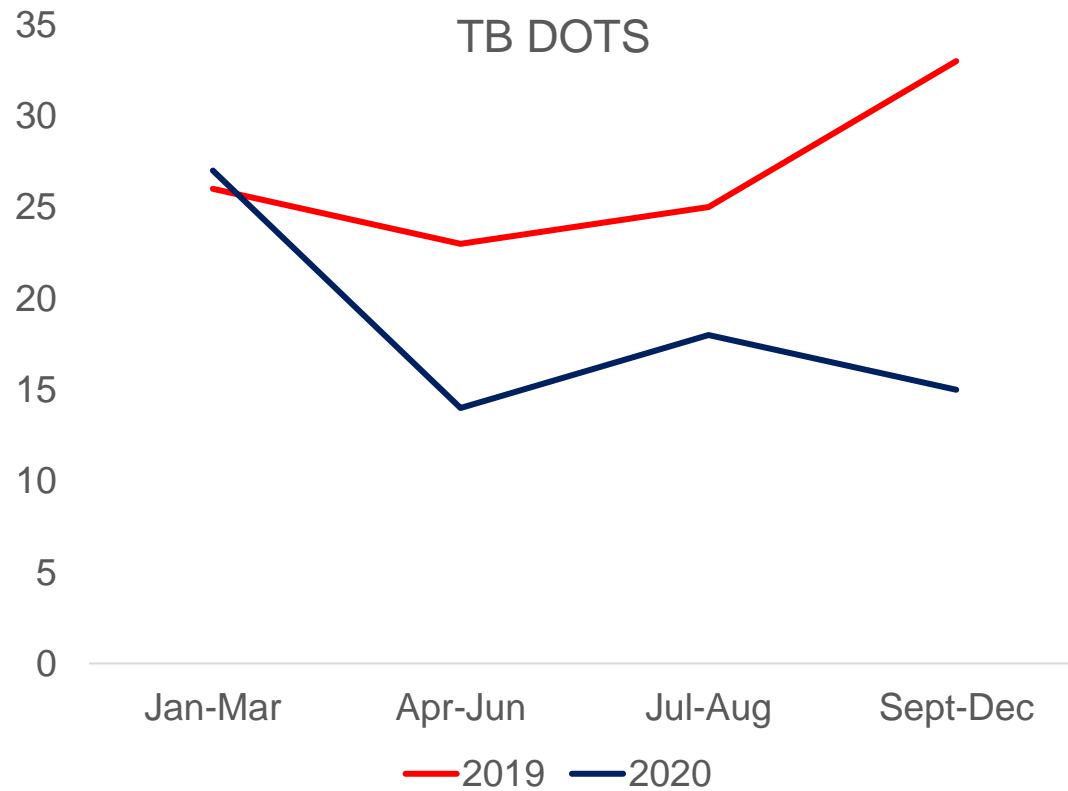
N=60 government hospitals

Precipitous decline consultations among children and senior citizens in RHUs



N=114 RHUs

Critical public health programs declined



N=114 RHUs

National Program data also showed large decline

TB DOTS

	2018	2019	2020
Number Tested (Target - 2,450,000)	1,164,290	1,083,877	556,773 (-49%)
Number Diagnosed and Treated, New and Relapse (Target - 442,600)	371,668	409,167	256,541 (-37%)
Number Diagnosed and Treated Drug Resistant TB (DR-TB) (Target - 8,500)	7,267	7,492	6,279 (-16%)
Treatment Success Rate, New and Relapse (Target - 90%)	91%	83%	74% (-11%)

HIV

	2019	2020
Number of HIV Tests	1,220,765	480,285 (-61%)
Number of newly diagnosed cases	12,778	8,058 (-37%)
Newly enrolled clients in Anti-Retroviral Therapy	11,654	8,429 (-28%)

Economic costs (Health)

	Lifetime years life lost (in billions NPV)	Equivalent years of life lost
Forgone wages (pre-mature deaths)		
<i>COVID premature deaths</i>	94	284,863
<i>Non-COVID deaths due to lack of healthcare</i>	398	1,086,599
Forgone wages (morbidity)	-	
<i>COVID morbidity (including long-COVID)</i>	65.84	164,390
<i>Non-COVID morbidities due to lack of healthcare (including new illnesses and risk due to COVID policy)</i>	1,688.08	2,114,038
Total	2,246.56	3,649,890

Takeaways...

- Children bear the brunt of the pandemic
- Uptake of most health services remained below the pre-pandemic level throughout the year (2020); no substantial recovery
- Re-arrangements of health services and health resources