



**Annual Meeting 2020**

**12 Dec 2020**

**Part 2: Co-existing with COVID-19**

# Co-existing with COVID-10

## Sharing of experience

- Bangladesh
- Hong Kong
- India
- Italy
- Malaysia
- Others

# Coronavirus Cases:

71,578,588

[view by country](#)

Deaths:

1,604,136

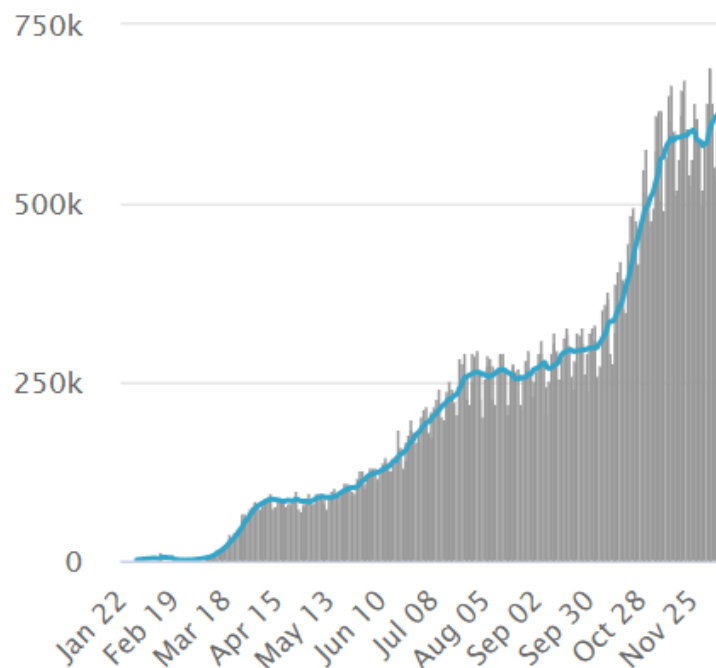
daily

linear

logarithmic

## Daily New Cases

Cases per Day  
Data as of 0:00 GMT+0



7-day moving average ☒

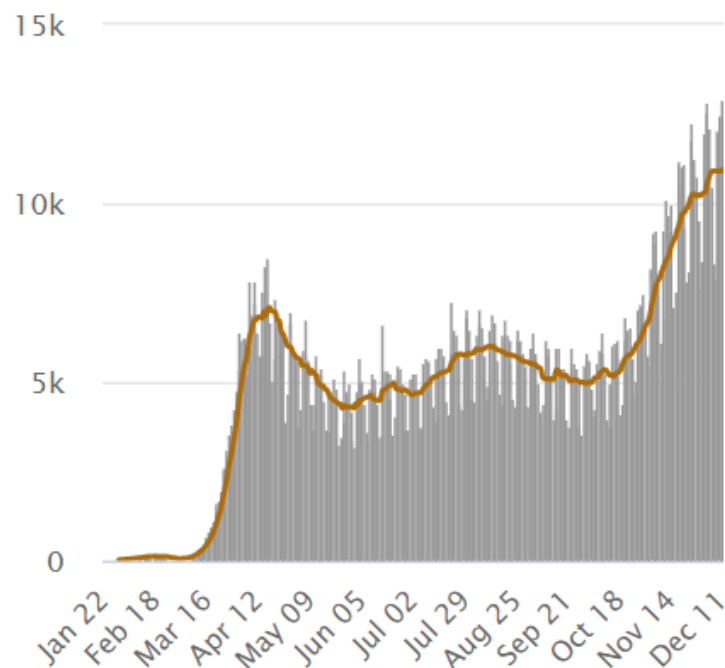
daily

linear

logarithmic

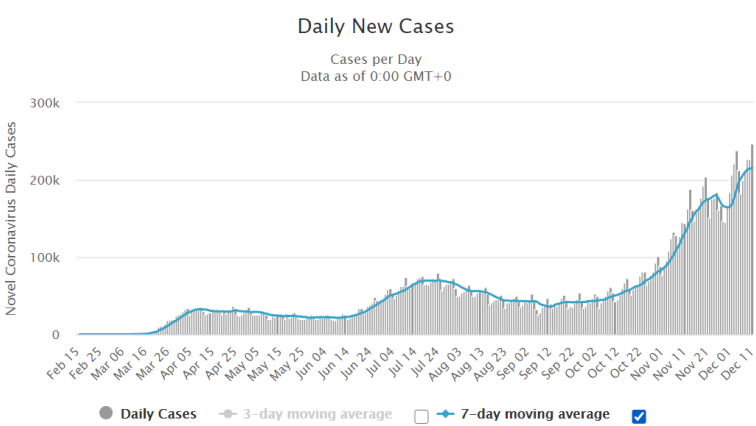
## Daily Deaths

Deaths per Day  
Data as of 0:00 GMT+0

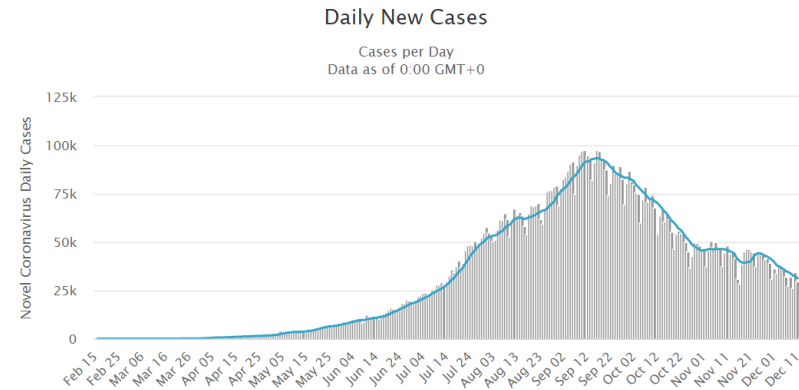


7-day moving average ☒

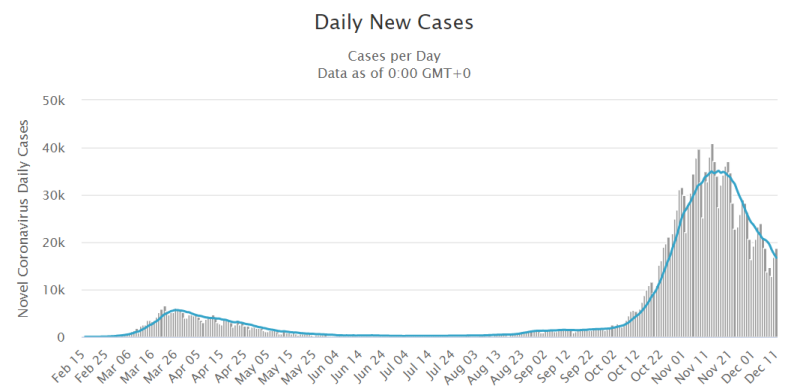
Daily New Cases in the United States



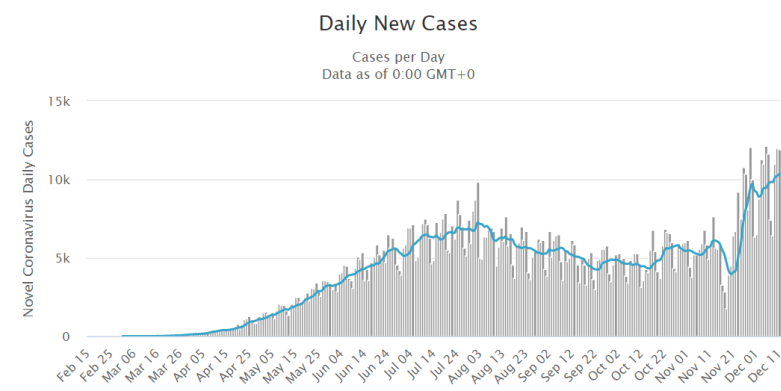
Daily New Cases in India



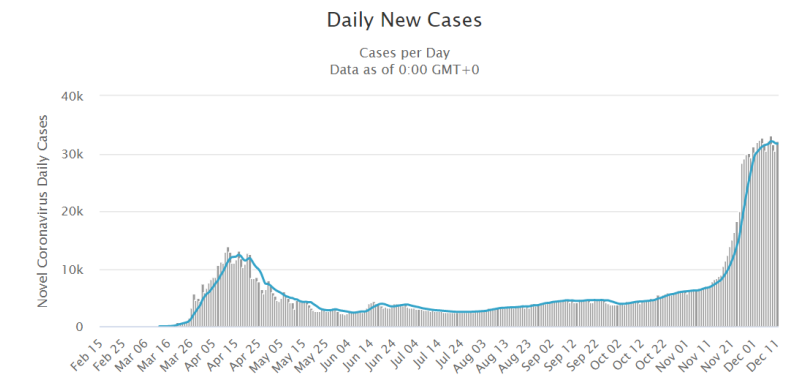
Daily New Cases in Italy



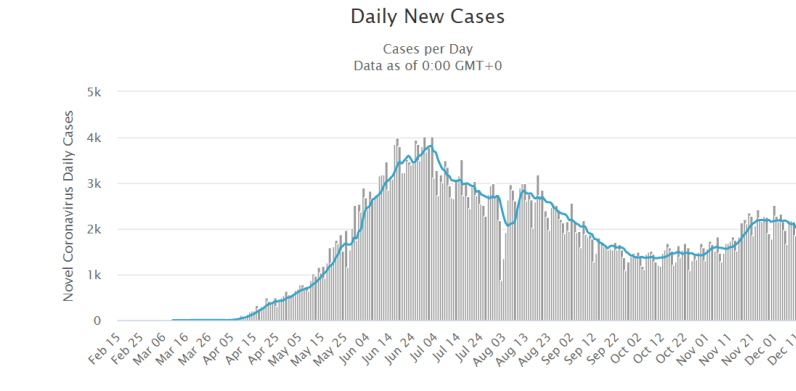
Daily New Cases in Mexico



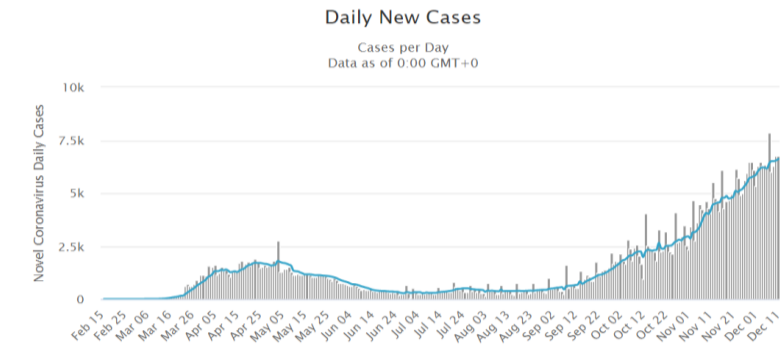
Daily New Cases in Turkey



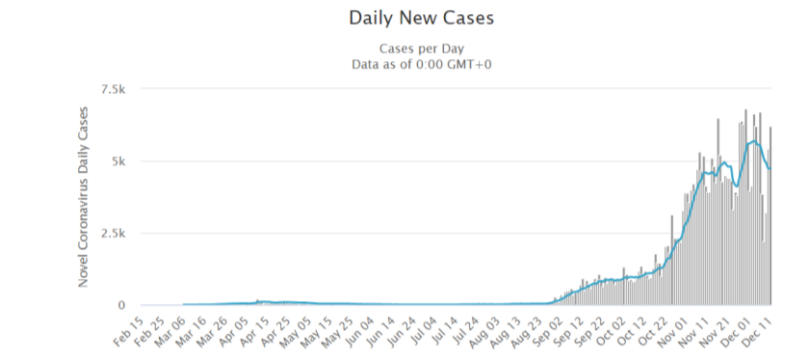
Daily New Cases in Bangladesh



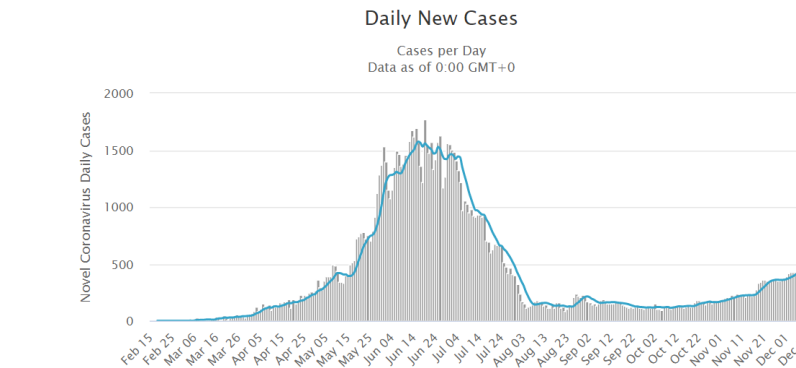
Daily New Cases in Canada



Daily New Cases in Hungary



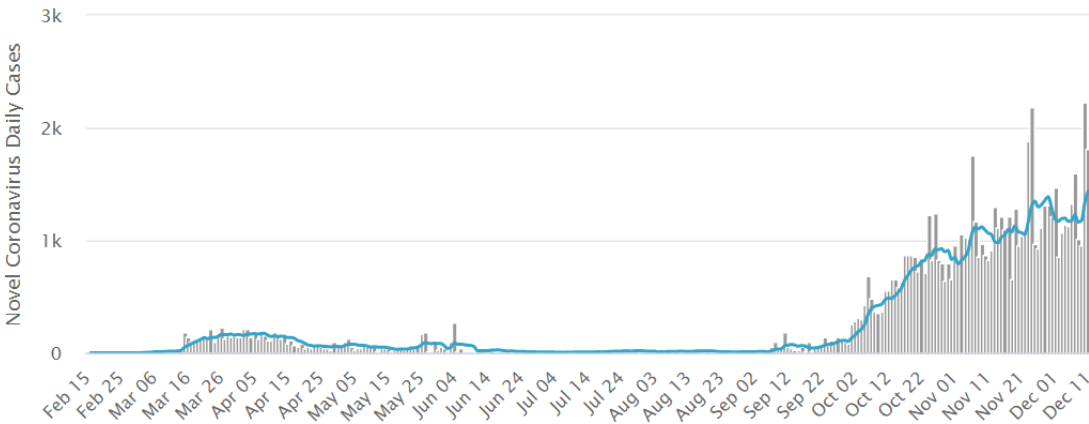
Daily New Cases in Egypt



# Daily New Cases in Malaysia

Daily New Cases

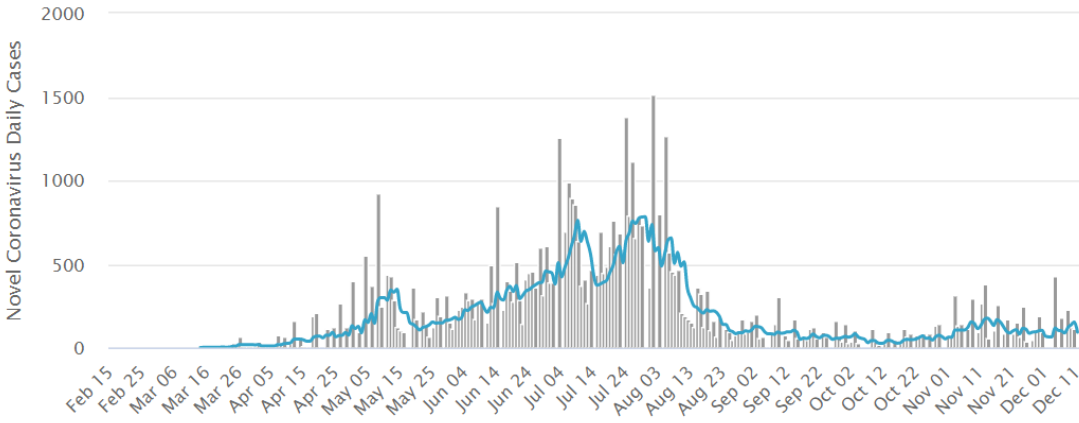
Cases per Day  
Data as of 0:00 GMT+0



# Daily New Cases in Ghana

Daily New Cases

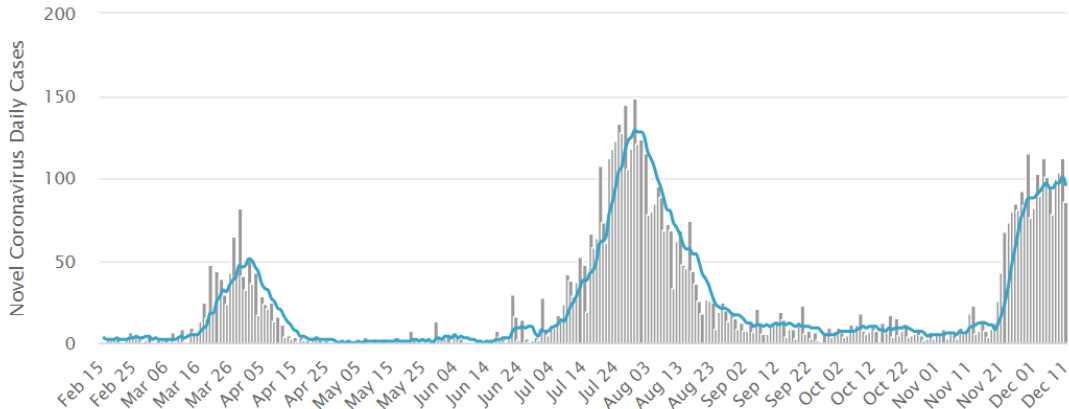
Cases per Day  
Data as of 0:00 GMT+0



# Daily New Cases in China, Hong Kong SAR

Daily New Cases

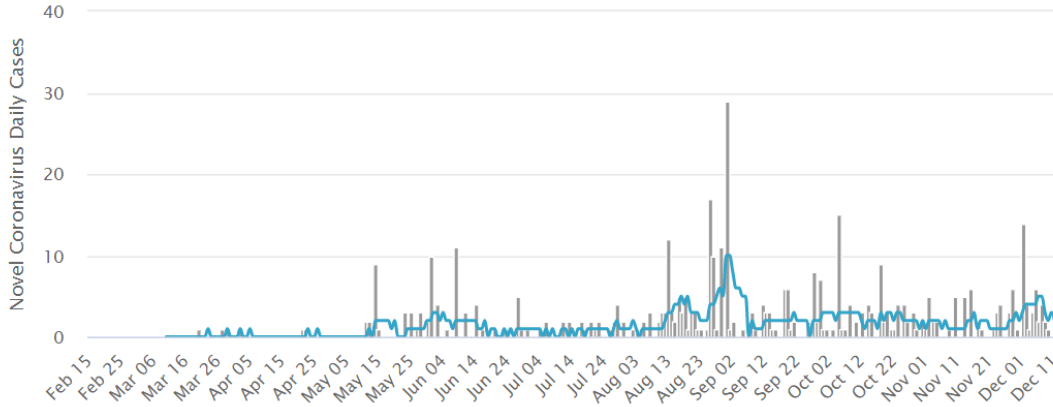
Cases per Day  
Data as of 0:00 GMT+0



# Daily New Cases in Bhutan

Daily New Cases

Cases per Day  
Data as of 0:00 GMT+0



# Co-existing with COVID-10

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# **COVID-19 in Bangladesh**

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**Prof. Dr. Harun-Ur-Rashid**

PhD, FCPS, FRCP

**Founder President, Kidney Foundation.**

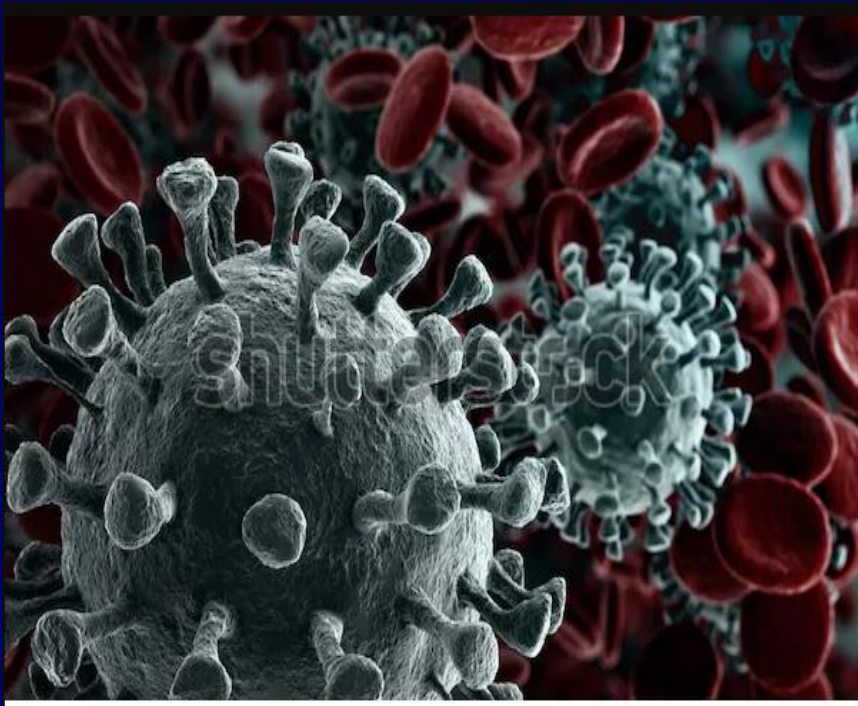
**Dhaka, Bangladesh.**



# COVID-19 in Bangladesh

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- Reported 1<sup>st</sup> in 8<sup>th</sup> March - 3 cases
- As in 12 Oct.- 481946
- No of death - 6906





# Bangladesh Perspective

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<b>Population<sup>1</sup></b>	<b>163.65 million</b>
<b>Three most populated cities:</b>	<b>1. Dhaka      -36,054,418</b> <b>2. Chattogram - 28,423,019</b> <b>3. Rajshahi    -18,484,858</b>
<b>Gross Domestic Product (GDP) (2017 – 2018)<sup>1</sup></b>	<b>USD 274.1 billion</b>
<b>GDP per capita (2017 – 2018)<sup>1</sup></b>	<b>USD 1675</b>
<b>Human Development Index (HDI) (2017)<sup>2</sup></b>	<b>0.608</b>
<b>Total number of nephrologists</b>	<b>260 (&lt;1.0/PMP)</b>

# ESRD-Bangladesh

## Perspective

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<b>Incidence of ESRD</b>	<b>2018 – 244.4 pmp (per million population)</b>
<b>Prevalence of ESRD</b>	<b>2018 – 305.5 pmp</b>
<b>Total number of patients in dialysis</b>	<b>2018 – 19123 (116.8pmp)</b>
<b>Number of patients in hemodialysis</b>	<b>2018 – 18500 (113 pmp)</b>
<b>Number of patients in peritoneal dialysis (CAPD)</b>	<b>2018 – 623 (3.8 pmp)</b>
<b>Number of renal transplantations per year</b>	<b>2018 – 187 (1.1 pmp)</b>

# ESRD care in Bangladesh

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- In 2018, about 10,421 new patients were on RRT (63.6 PMP)
- Of them
  - : 10000 on HD (61.1 PMP)
  - : 234 on CAPD (1.4 PMP)
  - : 187 Transplanted (1.14 PMP)

More than 80% had no access to dialysis or transplant because of lack of manpower and facility .

# Kidney Foundation, Bangladesh

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# COVID-19 infection in HD

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- No of patients studied in KF - 415
- No of pts. screened for COVID -196
- Duration of study-May20 –Oct 20
- No of COVID infection -24 (5.7%)
- No died - 7 (29%)

# COVID-19 infection in Transplant patients

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- Total no of patients followed up -1043
- Total no of COVID infection - 31(2.9%)
- No of patients died -7(22.6%)
- Cause of death: AKI-3,ARDS-02,CVA-02

# **No of COVID infection in CAPD**

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- Total no of patient studied - 80
- Duration of Study-March to Oct,2020
- No of patients with COVID infection-6(7.5%)
- No died - 4
- Cause of death : ARDS-02,AMI-01,Stroke-01



# Overview of Dialysis Unit in Kidney Foundation

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# A patient with maintenance Dialysis and a nurse

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# **ESRD care in Kidney Foundation**

## **No HD bed:110,**

## **No of pts. on HD: 800-1000**

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- Low cost dialysis treatment without compromising the quality.
- The cost of one dialysis session in KF is U\$18.00 whereas in private dialysis centers the cost varies from US\$ 40.00 – 58.00.
- Performed more than 3.5 lac (3,60,616) dialysis sessions at reduced cost for last 16 yrs.
- The total amount of money thus saved for patients over the last 16 years was 93.18 crores taka (**US\$ 10.50 million**)

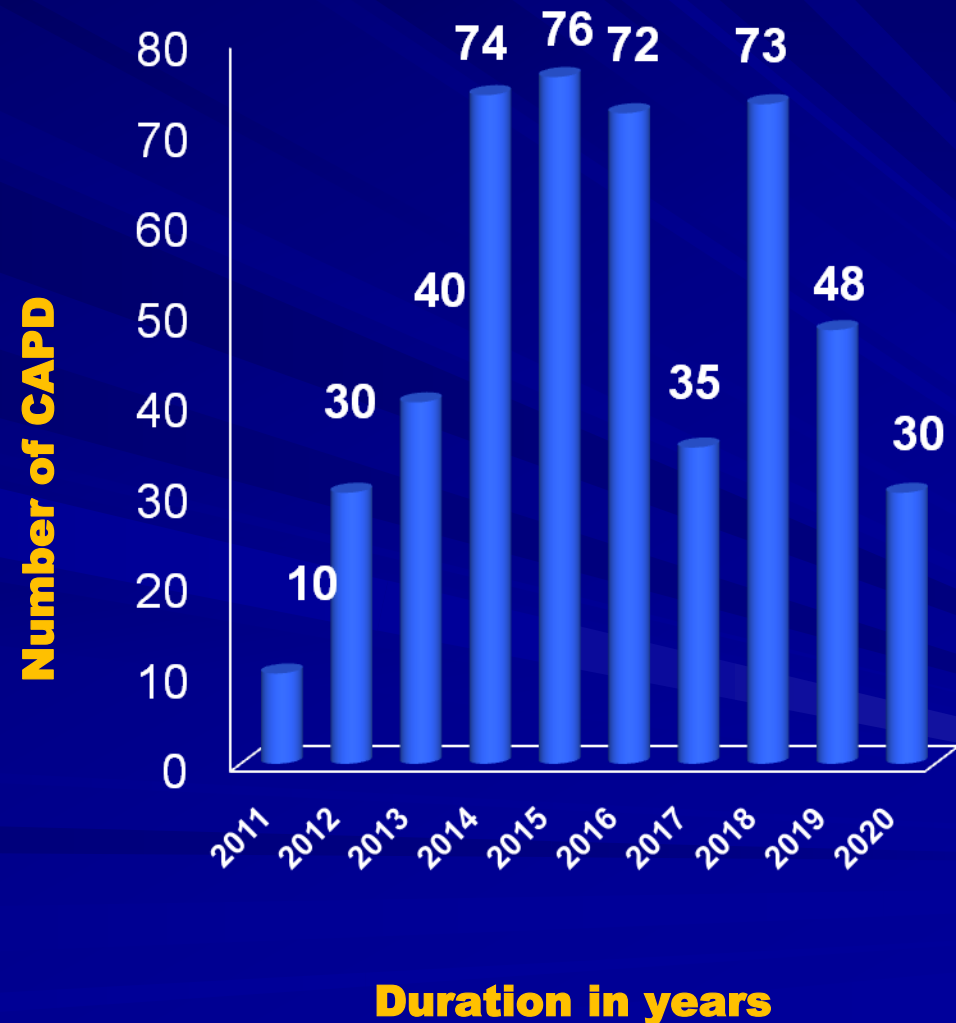
# Transplantation at Kidney Foundation Hospital

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- From September 2006 to September 2020, 505 renal transplantation was successfully performed.
- The overall expenditure of surgery and postoperative care is only US \$ 3,058.00.
- Out patient consultation fee for transplant patients is only Taka US\$ 1.2 and the investigation cost is reduced to 30% and is free for poor patients.

# CAPD in Kidney Foundation

- CAPD was started on September 2011 as a form of home dialysis and there are now 489 patients till Sept 2020.



# Cost of RRT Modalities at KF

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Mode of	Cost in Private Hospital	Cost in K.F
HD/pt/yr	Taka 3,64,000 – 4,68,000 (US\$4,550 - 5,850)	Taka 1,63,200 (US\$ 1920.00)
LRT/pt	Taka 3,74,960 – 8,00,000 (US\$ 4,687-10,000)	Taka 2,60,000 (US\$ 3058.00)
CAPD/pt/yr	Taka 4,80,000 (US\$ 6000)	Taka 4,00,000 (US\$ 5000)

**HD - Haemodialysis, LRT- Live related transplant**  
**CAPD – Continuous Ambulatory Peritoneal Dialysis**

# Benefit Given to Patients by KF (2005-2018)

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- Benefit to patients:

Taka 110.00 crore (13.7 million US dollar)



# Summary

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- Kidney Foundation is now the largest Non profit hospital for treatment of kidney disease, dialysis and renal transplant in Bangladesh.
- It is also conducting training for nurses, doctors and conducting research in cooperation with Royal London Hospital, Weyne State University, USA and Anam University Hospital, Korea.

A photograph of a field of white daisies with dark brown centers, set against a warm, golden sunset sky. The sun is low on the horizon, creating a soft glow and long shadows. The text "THANK YOU" is overlaid in a large, white, serif font. The image is framed by a dark blue border on the left and right sides, which features subtle diagonal lines.

**THANK YOU**

# Co-existing with COVID-10

## Sharing of experience

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# Co-Existing with COVID-19

## Hong Kong Experience

Preparedness

Response

Renal patients

HKKF/HKSN Activities for patients

Confirmed/Probable

7,378

Discharged

5,996

Hospitalized

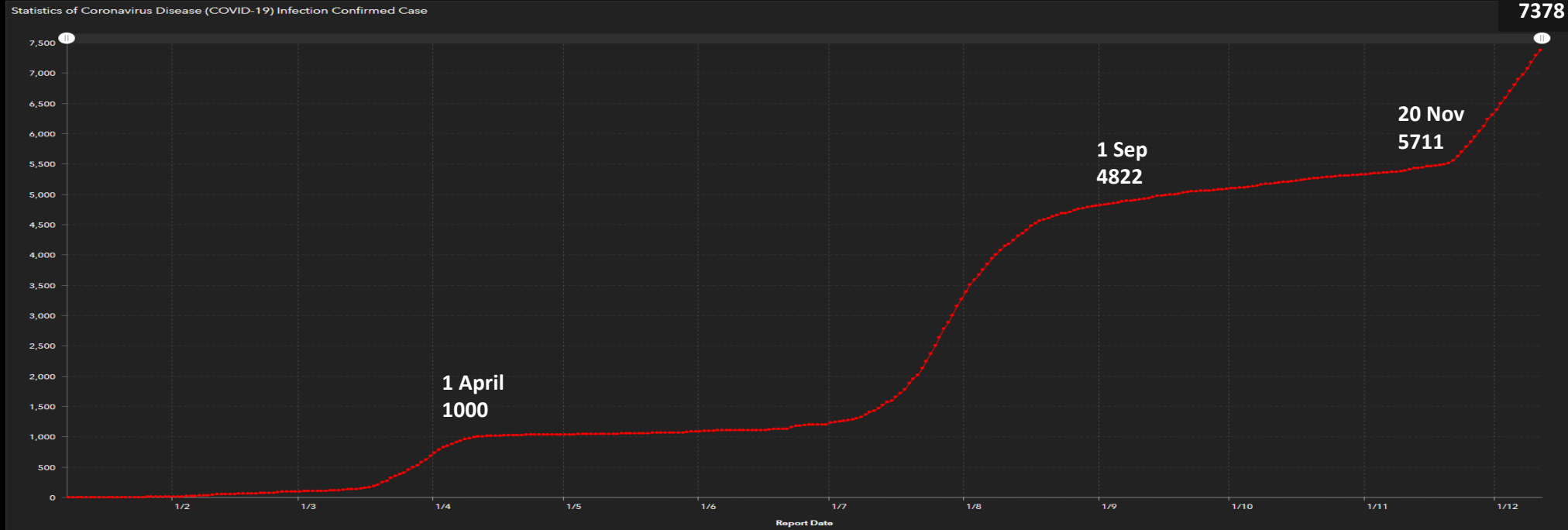
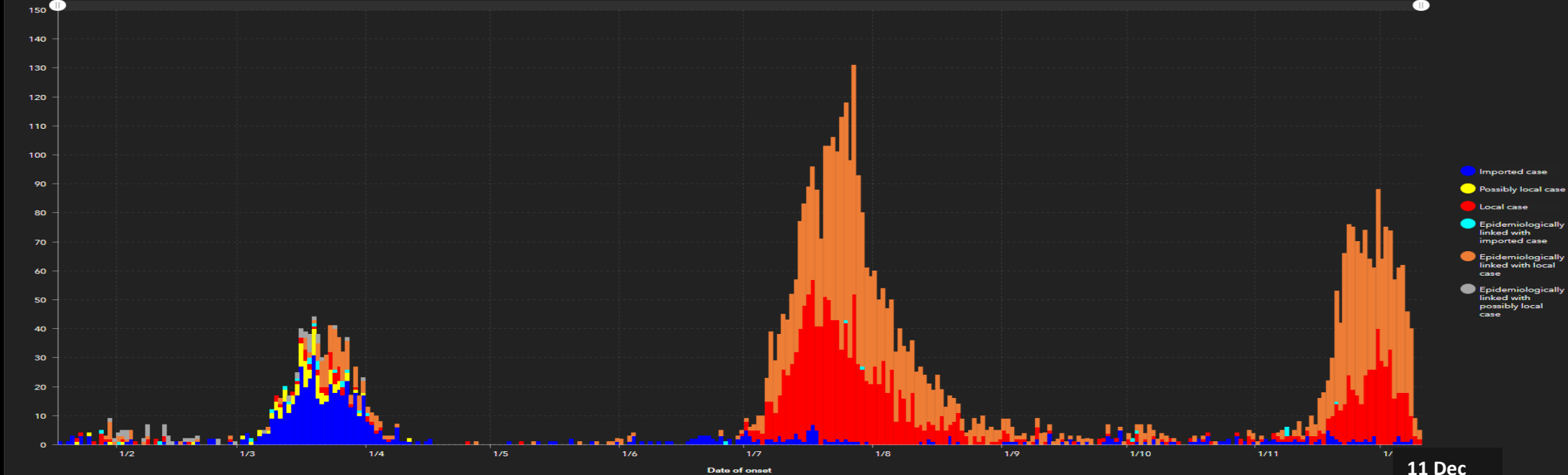
1,148

Critical

44

Death

114



# Preparedness

- SARS 2003      1755 cases, 299 death (17%)  
386 healthcare workers, 8 death
- Preparedness      **Comprehensive response plan** (government, hospital)  
**Negative pressure isolation beds:** 1200+ in 15 hospitals  
**PPE Stocking:**      3 months  
**Healthcare staff:**    Infection control training  
Fit test for N95  
**Culture:**      Wearing Mask  
Hand hygiene

# Rapid Response

- Response
  - Emergency alert state - 1 Jan 2020
  - All potential risks patient isolated.
  - All confirmed cases admitted into Infection Control wards
  - Early detection, isolation, treatment of case
  - No complete lock down.
  - Scale-up and down closure.



# Patient on Renal replacement therapy

- 11,000 patients under public sector (90%)

Peritoneal dialysis (CAPD, APD)	4552 (44%)	– Home therapy
Haemodialysis	2003 (19%)	– Hospital, centre, Home
Transplant	3766 (36%)	– Home

- **Only small number of patients** are exposed to COVID with hospital visit.

- **May be 13-15 patients confirmed COVID-19 (To be confirmed).**

Three deaths.

2 small clusters of case (public, private)

NO staff infected from caring COVID patients

Very tight infection control measure

# Universal precaution

- Surgical Mask 100% of time
- Hand hygiene
- Social distancing
- Segregation if have symptom / isolation
- **Staff protection**
  - Universal precaution
  - Appropriate PPE for the risk and work nature

**出**  
**OUT**  
**除防護裝備**  
**請跟次序**  
**Removing PPE**  
**Step by Step**

- 1** 除手套  
Remove Gloves
- 2** 潔手  
Perform Hand Hygiene
- 3** 除隔離衣  
Remove Gown  
由內向外捲起  
Folding Inside Out
- 4** 潔手  
Perform Hand Hygiene
- 5** 除帽及護眼罩/  
全面罩  
Remove Disposable Cap  
and Eye Protection
- 6** 潔手  
(選擇性)  
Perform Hand Hygiene  
(Optional)
- 7** 除口罩/  
N95口罩  
Remove Mask /  
N95 Respirator
- 8** 再潔手  
Perform Hand Hygiene  
**AGAIN**

注意：請將即棄防護裝備棄置於有蓋廢物箱  
N.B.: Disposable PPE should be properly discarded in dustbin with lid

衛生防護中心  
HOSPITAL AUTHORITY  
衛生防護中心  
Centre for Health Protection

size: 190W x 725Hmm

**入**  
**IN**  
**穿防護裝備**  
**請跟次序**  
**Donning PPE**  
**Step by Step**

- 1** 潔手  
Perform Hand Hygiene
- 2** 戴口罩/  
N95口罩  
Put on Mask /  
N95 Respirator \*  
\* 緊記密合性檢查  
Remember to  
Perform Seal Check
- 3** 戴護眼罩/  
全面罩及帽  
Put on Eye Protection  
and Disposable Cap
- 4** 穿隔離衣  
Put on Gown
- 5** 戴手套  
Put on Gloves

注意：需視乎風險評估而選擇適當的防護裝備  
N.B.: Selection of PPE should be based on risk assessment

衛生防護中心  
HOSPITAL AUTHORITY  
衛生防護中心  
Centre for Health Protection

size: 190W x 575Hmm

# Personal Protective Equipment (PPE)

PPE at triage / fever room / fever consultation room / surveillance ward



- \*AAMI level 3 isolation gown can be considered when splashing is anticipated. Alternatively, a waterproof apron on top of the AAMI level 1 isolation gown is also acceptable.
- Shoe covers are not recommended.

Recommended PPE for AGPs / suspected or confirmed COVID-19



58

## 新界東聯網使用之N95呼吸器 N95 Respirators in NTEC

Fit Test Order 測試次序 (1)

### Surgical N95 Respirator

HA Bulk Item



NASK M0011



1860



1870+



1860S



## PPE stock

Surgical masks 68,000,000

N95 6,500,000

Face shield 10,700,000

Gown 8,500,000



7 March 2020

**Hong Kong Kidney Foundation, Hong Kong Society of Nephrology & Hong Kong Association of Renal Nurses**  
set up the **COVID-19 Hong Kong Kidney Patient Support Fund and Program**  
to support patients facing difficult and financial burden to obtain surgical masks.

**US\$128,280** was raised with the strong support from our partners and pharmaceutical companies,  
enable the project to purchase **300,000 surgical masks**, to provide each of the **11,000 patients on renal replacement therapy**  
under Hospital Authority (public sector) and at charitable centres with **25 surgical masks**.





8 August 2020

# Together we fight COVID-19

Online Forum – Sharing, discussion and mutual support, attended by 108 patients and healthcare professionals

Organisers: Hong Kong Kidney Foundation, Hong Kong Society of Nephrology  
Hong Kong Association of Renal Nurses, Alliance of Renal Patient Mutual Help Association



# Co-existing with COVID-10

## Sharing of experience

- Bangladesh
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- Others





# **TAMILNAD KIDNEY RESEARCH FOUNDATION<sup>®</sup>**

... helping the underprivileged with kidney ailments



# ***Co-existing with COVID-19 India***

***Latha A Kumaraswami  
Managing Trustee  
TANKER Foundation, India  
IFKF Secretary & Treasurer  
Member WKD Steering Committee***



## COVID-19 in India-Numbers and policies



- Laboratory confirmed 1<sup>st</sup> COVID-19 positive was reported on January 30<sup>th</sup> in Kerala, India.
- Lockdown in India since 24<sup>th</sup> March 2020.
- Since 1<sup>st</sup> May – loosening of lockdown dependent on risk zones profiled as –Red (Hotspot), Orange and Green with containment areas.
- Surveillance through SARI(Severe Acute Respiratory Infection) and ILS(Immediate Life Support) throughout the country to monitor outbreaks for identifying areas.
- Slow opening of essential Industries and work place to balance health and economics keeping social distancing and use masks and maintain air flow.



## COVID Care in India – Strategies



- Designated COVID hospitals in cities and demarcated sections in smaller public health facilities at district level.
- Fever clinics to protect the facilities from being overburdened.
- Separate quarantine facilities for people migrating from within and outside the country.
- Community mobilization through education for home quarantine for suspected or at risk people.
- Availability of specialist desk for advise for physicians to manage and support patients at primary care level.





## India statistics as of 10<sup>th</sup> Dec'20:



- In India, 9.72 Million people infected so far.
- 0.14 Million people died due to COVID-19
- Peak infection time was Jul-Oct. Initial lockdown phase helped us to prepare adequately for hospitalization, procurement of PPE's, Ventilators, etc



# TANKER Foundation



*helping the underprivileged  
with kidney ailments*



- ❖ TANKER Foundation since 1993 helping the underprivileged with kidney ailments.
- ❖ TANKER is supported by well-wishers and non-profit organization
- ❖ 11 Dialysis Centers in Tamilnadu, India
- ❖ TANKER has provided **369,769 (0.36 Million)** free and subsidized dialysis for **1774** patients across **11** dialysis center.
- ❖ TANKER reached out to **0.18** people through **1279** Awareness Programmes
- ❖ TANKER awards research papers in Nephrology and Service annually



## COVID-19 @ TANKER (Till Nov'20)



April -November'20			
Unit Name	No of patients Infected	Recovered	Remarks
Ambattur	18	15	3 Death
Vkottam	16	15	One patient Improved Renal Function
TVK	6	6	
Perungudi	1	1	
Retteri	1	1	
Madurai	3	3	
Vellore	4	3	1
<b>Total</b>	<b>49</b>	<b>44</b>	<b>Death - 4 Improved -1</b>

- 49 patients were tested positive till Nov'20
- 10 staffs tested positive
- 4 patients died



## Challenges



- Education of patients about importance of hand wash/hand sanitization, social-distancing, wearing masks, etc
- Transportation was a challenge due to emergency lockdown both for patients and staff.
- Doctors consultation was not available for other management of patients.
- COVID-19 positive patients were managed by Govt. hospital initially and then managed by TANKER with proper isolation and appropriate PPEs'
- The units were run with less staff (drop by 20-25%) due to initial threat of infection.



## Role of TANKER Foundation during COVID



- Continuous education of patient, public, staff, family about safety measures
- Ensured the adequate/appropriate supply of hand sanitizer, face masks/Face shields, PPEs', etc to their patients and staffs.
- Awareness through face masks to corporation workers, Police, public, etc
- Provided accommodation, transport facility to their staff.





# TANKER Units



*helping the underprivileged  
with kidney ailments*





*helping the underprivileged  
with kidney ailments*

**Thank You!!!**

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# Kidney disease is associated with in-hospital death of patients with COVID-19

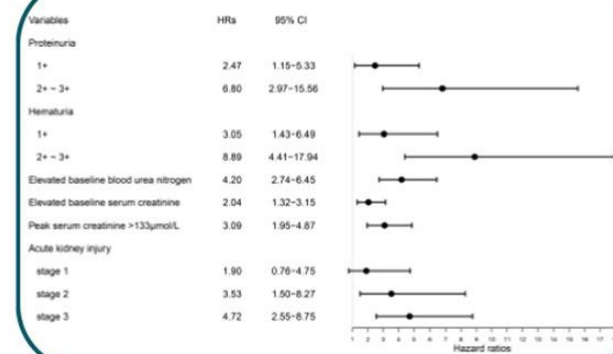


Confirmed COVID-19  
Age > 18 y  
No maintenance dialysis  
No renal transplatation

N=701  
Age 63y  
52.4% male  
42.4% severe  
42.6% comorbidity  
16.1% in-hospital death

## Prevalence of kidney abnormalities

14.4% Elevated Scr  
13.1% Elevated BUN  
13.1% eGFR<60 ml/min/1.73m<sup>2</sup>  
43.9% Proteinuria  
26.7% Hematuria  
5.1% Acute kidney injury



## CONCLUSION:

Clinicians should increase their awareness of kidney disease in patients with COVID-19.

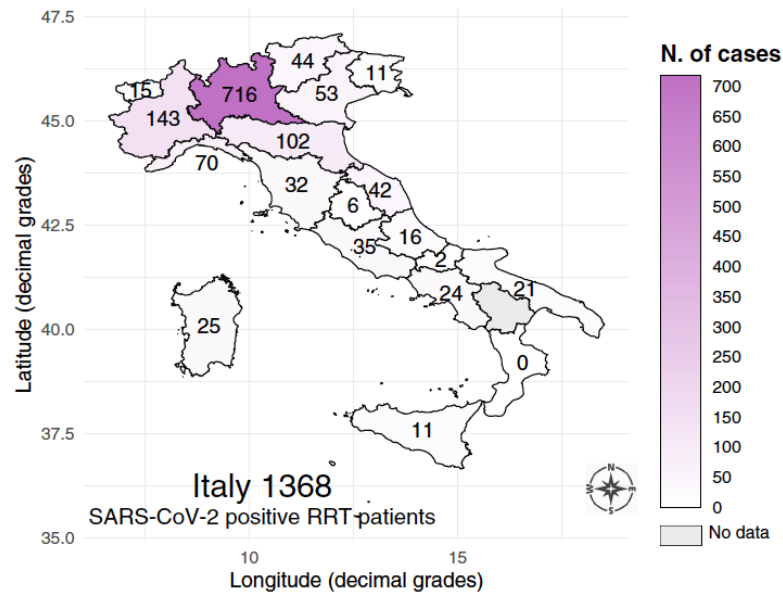




## Exposure to novel coronavirus in patients on renal replacement therapy during the exponential phase of COVID-19 pandemic: survey of the Italian Society of Nephrology

Giuseppe Quintaliani<sup>1</sup> · Gianpaolo Reboldi<sup>2</sup> · Anteo Di Napoli<sup>3</sup> · Maurizio Nordio<sup>4</sup> · Aurelio Limido<sup>5</sup> · Giorgio Messa<sup>7</sup> · Giuliano Brunori<sup>1,8</sup> on behalf of the Italian Society of Nephrology COVID-19

### SARS-CoV-2 Positive RRT patients



**Table 1** Exposed patients, SARS-CoV-2 positive cases and incidence rate by treatment modality and overall

Treatment modality	Exposed patients	SARS-CoV-2 positive cases	IR per 100	95% CI
HD	30,821	1093	3.55	3.34 3.76
PD	4139	57	1.38	1.04 1.78
Tx	25,481	218	0.86	0.75 0.98
RRT	60,441	1368	2.26	2.14 2.39

HD hemodialysis, PD peritoneal dialysis, Tx transplant, RRT renal replacement therapy, IR incidence rate

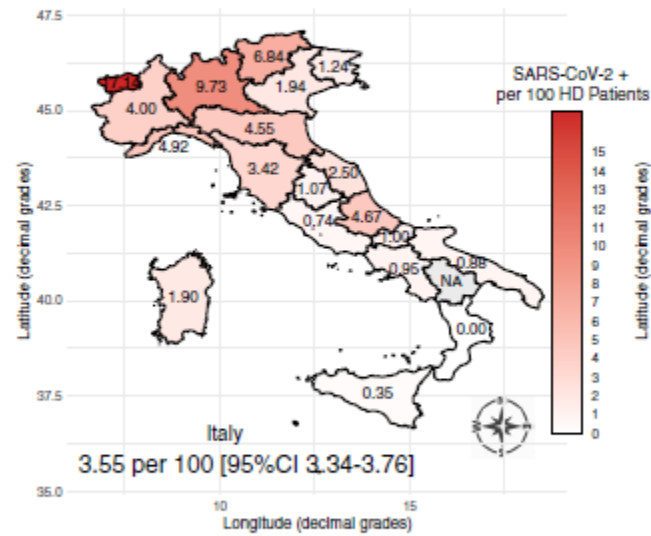
Modality effect  
 $p < 0.001$

- Variabilità regionale dell'incidenza con gradiente Nord-Sud.
- Incidenza molto più alta di COVID-19 nei pazienti in terapia sostitutiva, rispetto alla popolazione generale
- Incidenza più elevata in emodialisi che in dialisi peritoneale e in trapianto.



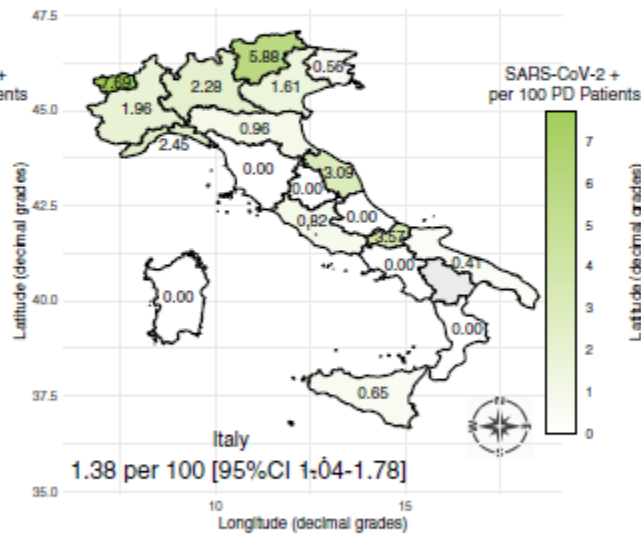
# SARS-CoV-2 Infection Rates by Modality

## A) Hemodialysis



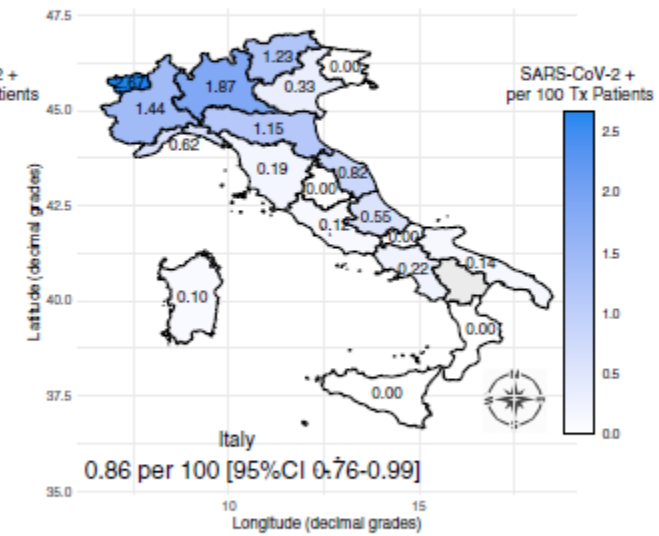
Region effect  $p < 0.001$   
Latitude effect  $p < 0.001$

## B) Peritoneal Dialysis



Region effect  $p < 0.001$   
Latitude effect  $p < 0.001$

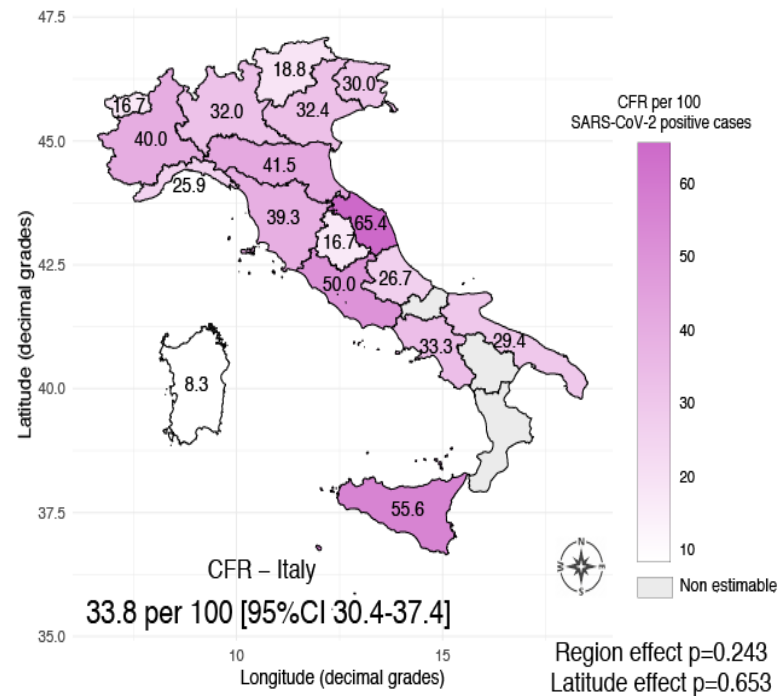
## C) Transplant



Region effect  $p < 0.001$   
Latitude effect  $p < 0.001$

Macroregion effect  $p < 0.001$

Case Fatality Rate per 100 SARS-CoV-2 positive HD Patients



Treatment	SARS-CoV-2 positive patients	Deaths	Fatality rate per 100	95% CI	
HD	1093	369	33.76	30.43	37.42
PD	57	26	45.61	29.80	66.83
Tx	218	54	24.77	18.61	32.32
RRT	1368	449	32.82	29.86	36.00

Mortalità più alta in RRT che nella popolazione generale.

Regioni con almeno 10 decessi

Macroregion effect  $p=0.648$

# Kidney disease is associated with in-hospital death of patients with COVID-19

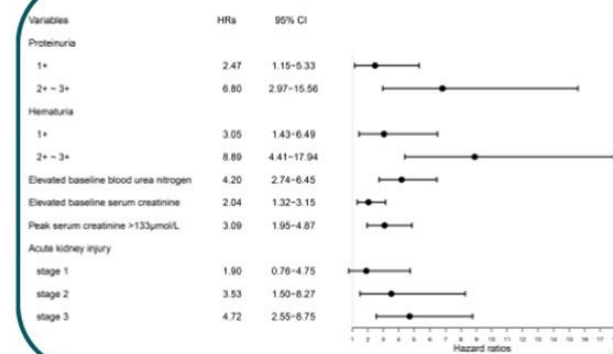


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# IMPACT OF COVID 19 ON NKFM ACTIVITIES

ZAKI MORAD

NKF MALAYSIA

# COVID 19 IN MALAYSIA

As up to today :

Cumulative number of cases 82,246

Cumulative number of recovered cases 68,084

Total active cases 13,751 (121 in ICU and 66 on Ventilators)

Total Number of deaths 411

New Cases today 1,937



# IMPACT OF COVID 19 ON NKFM

- Financial impact
- NKF's HD program
- NKF's Public Education Program
- Collaboration with MoH and other parties

# FINANCIAL IMPACT ON NKF

- Sign- up of new donors in our DDDP program decreased significantly in 2020
- Donations for existing donors continue to flow –in sustaining our operations
- Expenses in running our HD program has increased significantly
  - use of PPEs, Tests for SARS Covid 2 , decontamination of affected centres, allowances for staff working extra hours
- Financial assistance for our HD patients (US\$300,000)

# FINANCIAL IMPACT ON NKFM

The Ministry of Health mandates that all Covid 19 positive patients MUST be admitted to designated public hospitals. This includes Hemodialysis patients who are positive who have to be treated in HD centers in public hospitals. NKf had 6 of its HD patients who were transferred temporarily to Public hospitals

At the peak of the pandemic, the MoH facilities were overwhelmed NKf donated PPEs, HD machines and Portable water treatment machines to government hospitals. It also volunteered its HD staff to assist

# HD Practices in NKFM HD centres

- ❖ All patients must wear 3 ply face masks & screen for body temperature, sanitise their hands before they are allowed to enter the centre for dialysis treatment.
- ❖ Staff working in the centre sanitise their hands and check body temperature before entering centre, and put on the following PPE:
  - 3 Ply face mask
  - Face shield
  - Apron
  - Gloves
- ❖ In addition to the above PPE, staff wears gown & head cap when nursing PUI cases in the last shift & single use dialyzers for 2 weeks.

# Change of Working Hours

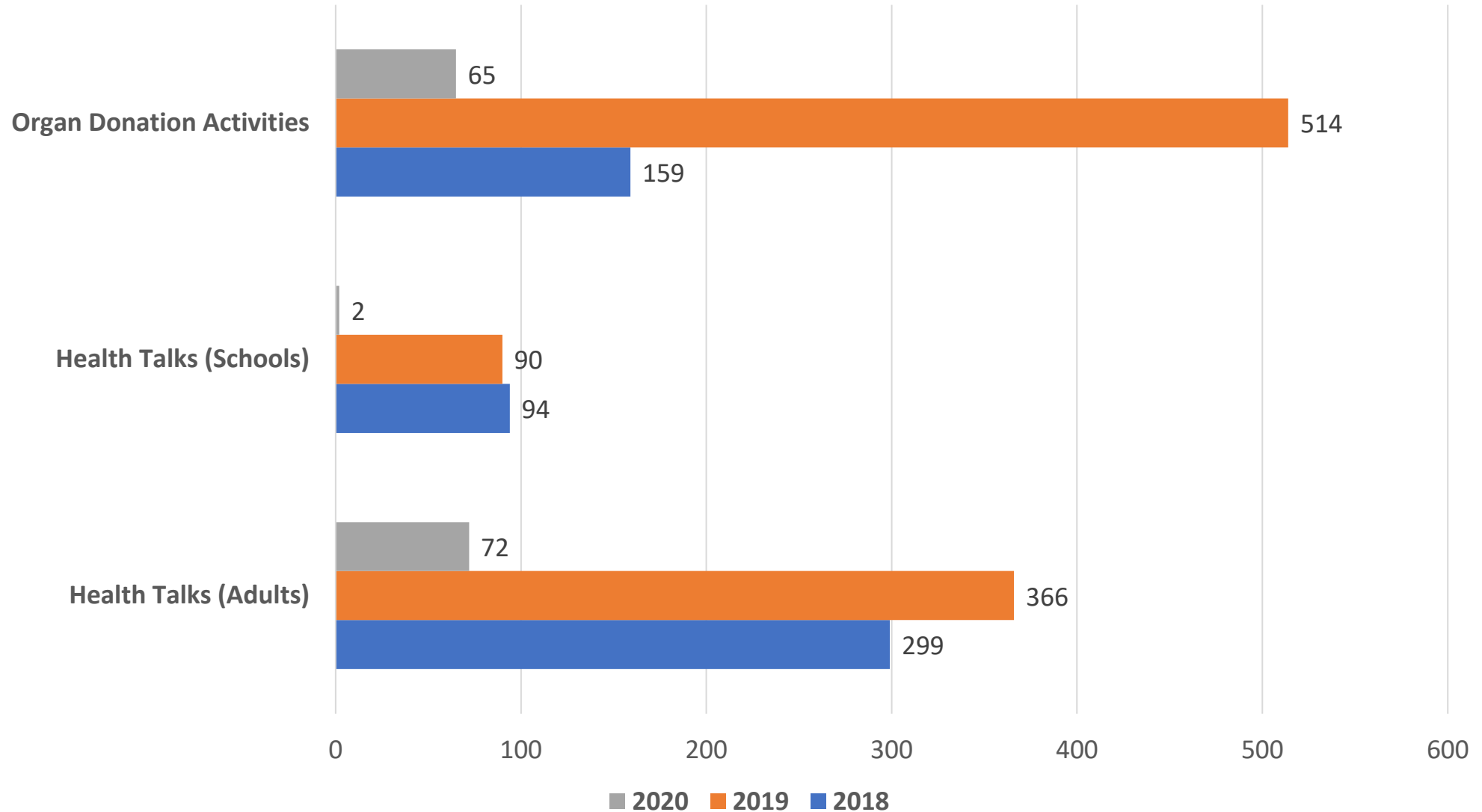
- ❖ The Staff were divided into two teams, working on alternate days from 7.00am – 9.00pm.
- ❖ The staff were assigned to attend to specific patients/machines in every shift.
- ❖ These measures were adopted to minimize the number of patient contacts.
- ❖ It was very tiring to work for a long stretch with PPE on.

# DELAY IN LICENSING OF NEW HD CENTRES

- ❖ MCO (Movement Control Order) due to COVID-19 had also affected NKF's development plans.
- ❖ NKFM usually opens 2-3 centres a year in areas where facilities are needed
- ❖ This year development plans were put on hold as MCO prohibits its staff from travelling to proposed new sites to plan the centre.

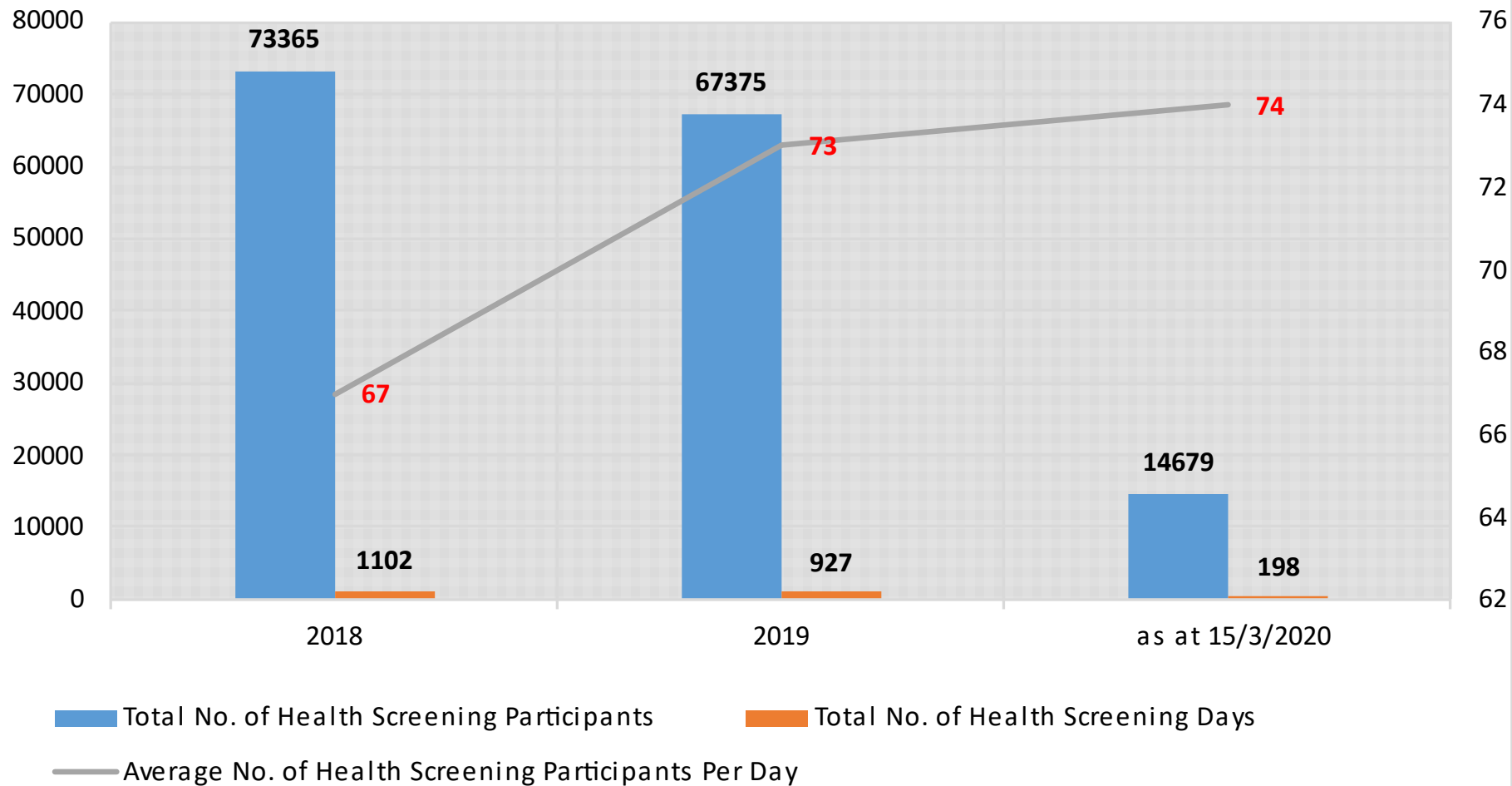


## Total Number of Kidney Awareness Activities 2018 - 2020



# Mobile Health Screening Activities

**Total No. of Health Screening Participants from 2018 to 15th March 2020**



# The good that came out of this pandemic

- Close collaboration amongst healthcare providers – MoH, Private providers, NGOs and community
- Patients and Staff becomes more compliant to SOPs  
No one complaints, everyone willing to sacrifice for the good of the organization.
- Data compilation is more complete
- Greater use of social media

# Co-existing with COVID-10

## Sharing of experience

- Bangladesh
- Hong Kong
- India
- Italy
- Malaysia
- Others