COVID-19 and Pandemics – The implications on Plastic material consumption and Trainings for Health Sector including PPEs

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Government of India
PANDEMICS.....

BEFORE 20TH CENTURY
( An estimated over 300 million deaths )

165-180 A.D. : ANTONINE PLAGUE caused 5 million deaths
541-542 A.D. : Plague of Justinian caused 30-50 million deaths
1347-1352 : Black Death, The Plague, ? originated in Asia, 75-200 million deaths
1520 : New World Small Pox caused 25-55 million deaths
1629-1631 : Italian Plague, caused 1 million deaths
1665 : Great Plague of London, caused 75,000-100,000 deaths
1885 : Third Plague, caused 12 million deaths
1889 : Russian Flu, caused 1 million deaths
Late 1800s : Yellow Fever, caused nearly 150,000 deaths
PANDEMICS.....

20TH CENTURY
( An estimated over 52 million lives already lost)

1918 : The Spanish Flu, by H1N1 Virus, from birds to humans, infected an estimated 500 million & caused nearly 50 mn deaths
1957 : Asian Flu, caused 1 million deaths
1968 : Hongkong Flu, caused 1 million deaths
2002 : Severe Acute Respiratory Syndrome (SARS), became the first pandemic of the 21st century caused by a Corona Virus, originated in China, infected an estimated 8000 people in 29 countries and had a mortality rate of around 10%, caused nearly 800 deaths
2009 : Swine Flu, affected an estimated 60.8 mn, caused 20,000 deaths
2014 : Ebola, caused nearly 11,000 deaths
2015 : Middle East Respiratory Syndrome (MERS) caused 1000 deaths
allow a repeat of same mistake in 1918....

LESSONS OF HISTORY

The most severe pandemic in history was the Spanish Flu of 1918. It lasted for 2 years, in 3 waves, with 500 million people infected and 50 million deaths. Most of the fatalities happened in the 2nd wave. The people felt so bad about the quarantine and social distancing measures that when they were first lifted, the people rejoiced in the streets with abandon. In the coming weeks, the 2nd wave occurred, with tens of millions dead.

Let’s not repeat history in the time of Covid-19
Coronaviruses are a large family of viruses that cause a wide range of illnesses from common cold to more severe diseases like:

- Severe Acute Respiratory Syndrome (SARS)
- Middle East Respiratory Syndrome (MERS)

New viruses periodically appear in the world.

Novel Coronavirus 2019 / nCoV is a type of coronavirus that has not been previously identified in humans. COVID-19 is the disease caused by it.
Versatile, Affordable and Ever-present plastics have been essential to keeping hospitals running and protecting our frontline workers during the COVID-19 pandemic. They’re the bedrock of medical equipment and protective gear.

As demand skyrockets for masks, goggles, face shields, gloves, gowns and disposable bags etc. one thing is clear: plastics are indispensable, especially during a pandemic.

A Study recently found that the virus can live up to 24 hours on paper, cardboard and fabrics, compared to up to 72 hours on plastics and other hard, shiny surfaces.
PLASTICS USE RISE SINCE 2007

• We use plastic extensively
• Rapid growth in global plastic production was not realized until the 1950s
• Over the next 65 years, annual production of plastics increased nearly 200-fold to 381 million tonnes and India is expected to consume about 20 million tonnes in 2020
• COVID-19 Impact is Extra

26000 tonnes of waste everyday........
MINUS PANDEMIC IMPACT....
EQUAL TO

9000 Elephants
86 Boeing 747

We generate 11 KG per person
COVID – 19 IMPACT
(HEALTH SECTOR RELATED)

DIRECTLY HEALTH SECTOR RELATED

- Goggles
- Face shield
- IV fluid bottles
- Cannulas
- Catheters IV sets
- Urobags
- Blood bags
- BT sets
- Syringes
- Suction catheters
- ET tubes
- Oxygen masks & tubes
- BMW carrybags

INDIRECTLY RELATED TO HEALTH SECTOR

- Water bottles
- Take away packaging
- Cold drink bottles
- Disposables’ plastic items
- Polybags & Plastic Garbage Bags
- Sanitizer bottles

AND MANY MORE
PPE
PERSONAL PROTECTIVE EQUIPMENT

- Cap (Head Gear)
- Mask - Triple layered medical mask, N 95 mask, FFP 1 / FPP 2 mask, Cloth mask (for general public use)
- Goggles
- Face shield
- Plastic gown
- Coverall
- Shoe cover
- Gloves - Latex, Nitrile, Vinyl

NOTE: Specifications of PPE are given in Annexure A of Rationale of PPE use by MoHFW
PPE FOR COVID-19

- Face Mask: Nose + mouth
- N95 Mask: Nose + mouth
- Face shield: Eyes + nose + mouth
- Goggle: Eyes
- Gown: Body
- Apron: Body
- Gloves: Hands
- Head cover: Head + hair
- Face shield: Eyes + nose + mouth
- Goggles: Eyes
- N95 Mask: Nose + mouth
- Apron: Body
- Gloves: Hands
- Head cover: Head + hair
COVID-19 STATUS TODAY

GLOBAL
- 212 Countries
- To cross 5 Million cases today (49,85,825)
- Recovered: 19,58,441
- Nearly 94,000 cases per day
- Nearly 4,500 deaths per day
- Minimum Likely Deaths 3,31,702

INDIA: Will be Top Ten in a week’s Time
- Total Cases: 1,06,750
- Active Cases: 61,149
- Cured / Discharged: 42,297
- Deaths: 3,303
- Migrated: 1

Doubling Time:
- India 13 days
- USA 27 days
- UK 27 days
- Spain 40 days
- Russia 13 days
- Italy 46 days
- Brazil 11 days
- France 41 days
- Germany 44 days
- Turkey 30 days
- Malaysia 42 days
- Singapore 20 days
- China 67 days
- HK 50 days
## COVID WARRIORS - HRH IN INDIA

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBBS Doctors</td>
<td>9,27,000</td>
</tr>
<tr>
<td>MBBS Students</td>
<td>1,53,656</td>
</tr>
<tr>
<td>Ayush</td>
<td>8,32,445</td>
</tr>
<tr>
<td>Para-medical (Allied Health Professionals)</td>
<td>Nearly 70,00,000 (7 Million)</td>
</tr>
<tr>
<td>Nurses</td>
<td>17,48,363</td>
</tr>
<tr>
<td>Dentists</td>
<td>2,17,000</td>
</tr>
<tr>
<td>Pharmacists</td>
<td>11,25,222</td>
</tr>
<tr>
<td>LAB Volunteers</td>
<td>43,736</td>
</tr>
<tr>
<td>ASHA Workers</td>
<td>10,07.045</td>
</tr>
</tbody>
</table>

### HOSPITALS OTHER THAN CENTRAL GOVT. AND STATE GOVT. HEALTHCARE FACILITIES

<table>
<thead>
<tr>
<th>Hospital Type</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESI C Hospitals</td>
<td>49</td>
</tr>
<tr>
<td>CP SEs Hospitals</td>
<td>201</td>
</tr>
<tr>
<td>Railway Hospitals</td>
<td>50</td>
</tr>
<tr>
<td>Ordinance &amp; HAL Hospitals:</td>
<td>13</td>
</tr>
<tr>
<td>Port Hospitals</td>
<td>12</td>
</tr>
</tbody>
</table>

*HRH of these Hospitals*

Nearly 95 Lakh (9.5 Million)

[https://covidwarriors.gov.in/](https://covidwarriors.gov.in/)
COVID WARRIORS OTHER THAN HRH IN INDIA

- AWW : 25,43,113
- Vet. & Para-Vet : 83,256
- PMKVY-Trained : 1,08,189
- DAY NULM Trained HPs : 45,385
- DDU GKY Trained HPs : 43,944
- Psycho-Social Care HPs : 1,16,346
- Fire Services : 23,211
- Panchayat Secretaries : 2,37,917
- Ex-Servicemen : 1,79,918
- NYKS : 24,17,773
- NSS : 17,91,672
- NCC : 62,024
- Gram Rozgar Sewaks : 1,72,959
- Postmen & Dak Del Agents : 1.05.731
- Civil Defence : 57,394
- Home Guards : 1,08,694

Nearly 81 lakh (8.1 Million)

https://covidwarriors.gov.in
VIRTUAL TRAININGS OF HEALTHCARE WORKERS ON COVID 19

- Virtual trainings of healthcare workers of different cadres are being done through digital platforms (Zoom, Webex etc.)
- Trainings/webinars/courses conducted by:
  - DOPT-Ministry of Home Affairs (iGOT)
  - WHO (World Health Organization)
  - Central & State Governments’ Organizations like AIIMS, NPC etc.
  - Donor Partners and International NGOs like JHPIEGO India, UNICEF, UNFPA etc.
  - Associations & societies like IMA, DMAs, IAP, IAPsy, NNF, API, FOGSI, ISHRAE, GIHM, Six Sigma Healthcare, eLets, etc.

Trainings done on COVID overview, facility preparedness & readiness, IPC practices, clinical management etc.
No: T-16017/11/2019-IGOT
Government of India
Ministry of Personnel, Public Grievances and Pensions
Department of Personnel and Training
(Training Division)

Old JNU Campus, New Delhi
Dated: 21st April, 2020

IMMEDIATE

To,
The Chief Secretaries of all the State/Union Territory Governments

Subject: Onboarding of States/Union Territories’ COVID-19 Warriors to IGOT (Integrated Govt. Online Training) courses on DIKSHA platform on COVID-19 pandemic.

Dear Sir/Madam,

As all are aware, the whole world, including India, is facing a significantly higher threat from COVID-19 pandemic. India is responding to the Novel coronavirus pandemic with unprecedented mobilisation of Human Resources - the intrepid COVID Warriors who are battling the Virus at the forefront. These brave & dedicated Doctors, healthcare workers, Technicians, paramedics, Ayush Doctors, State/UT Govt. Officers, Police and other Volunteers require enhanced capacity & updated information to keep in-step with the latest advances in techniques and global understanding of the Virus.

2. In pursuance of the decision of the Empowered Group on Augmenting Human Resources and Capacity Building set up by the Honorable Prime Minister under the Chairmanship of Secretary, Micro Small and Medium Enterprises, the Government of India, through its Department of Personnel and Training, has launched a tailored version of IGOT (Integrated Govt. Online Training) on 07/04/2020 to train all the COVID-19 Warriors of India. The learning portal [https://igot.gov.in] has national coverage, free access to all, 24x7 content availability from any location, any device and above all has relevant content developed by the Govt. of India which is updated regularly as the situation unfolds. The IGOT COVID version is being hosted on Ministry of Human Resource Development’s DIKSHA platform.

3. The URL Link of the website is [http://igot.gov.in]. For onboarding the platform, the following information is enclosed:
   (i) Elementary User Guide for Desktop/Laptop users - Annexure-I
   (ii) Elementary User Guide for Mobile Users - Annexure-II
   (iii) Elementary User Guide for Mobile App Users - Annexure-III
   (iv) Details of Courses uploaded on IGOT DIKSHA platform so far - Annexure-IV
   (v) Instructions for content creation - Annexure-V

4. In this connection, the approach will require partners & States/UTs to:
   (i) Identify the States/UT’s COVID-19 Warriors including Doctors, Nurses, Paramedics, Hygiene Workers, Technicians, Auxiliary Nursing Midwives (ANMs), State Govt. Officers, Civil Defence Officials, etc.
   (ii) Identify the training needs of respective frontline workers and identify/ customise courses with focus on content in local languages, etc.
I-GOT WEBSITE DASHBOARD
GLIMPSE OF COURSES ON I-GOT

- Health Education
- Hand Hygiene and Social Distancing
- Respiratory Therapy for COVID-19
- COVID awareness-Bengali
- COVID Awareness - Odia
- COVID Awareness - Gujrati
THANK YOU!