THE CHALLENGE

Humanity has contended with infectious disease epidemics throughout history, and we remain vulnerable to this threat today, as the current pandemic of COVID-19 caused by the novel coronavirus underscores. In fact, the incidence and scale of disease outbreaks with epidemic potential appears to be worsening in the 21st century due largely to urbanization, globalization, and greater human/animal interaction.

GLOBAL HEALTH SECURITY

A recent analysis shows that national health security is weak around the world and that no country is fully prepared for epidemics or pandemics. The unprecedented COVID-19 crisis shows that epidemics are not only a health challenge, but also an issue of global security, economic growth and social stability. We must be far better prepared when the next pandemic strikes.

OUTSMARTING EPIDemics

Johnson & Johnson has been fighting pandemics for more than a century—we introduced the epidemic mask to help contain the Spanish Flu in 1919. Faced with today’s COVID-19 pandemic, we commenced vaccine development the moment the genome for the novel coronavirus was identified. We take a comprehensive approach to tackling infectious diseases by creating new medicines, vaccines and other healthcare products, helping to spearhead public education efforts, and investing in ongoing education for healthcare workers on the frontlines.

SPEARHEADING PARTNERSHIPS

Public-private collaborations help ensure more effective responses to health security threats. We partner with:

- **Biopharmaceutical Companies**: To accelerate new solutions against epidemic threats.
- **Academic Institutions, Foundations and Cross-Sector Alliances**: To bring together the full capabilities of the public, private and academic sectors to develop new tools against diseases with epidemic potential, and to advocate for strategies that improve global pandemic preparedness.
- **Governments, International & Multilateral Agencies**: To expedite R&D, manufacturing and regulatory timelines and ultimately deliver novel vaccines and antivirals for those who need them.

PANDEMICS & KEY EPIDEMIC THREATS

<table>
<thead>
<tr>
<th>Illness</th>
<th>Year</th>
<th>Cases</th>
<th>Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1N1 INFLUENZA</td>
<td>2009</td>
<td>700,000,000</td>
<td>284,000 deaths</td>
</tr>
<tr>
<td>EBOLA</td>
<td>2014-16</td>
<td>28,616 cases</td>
<td>11,325 deaths</td>
</tr>
<tr>
<td></td>
<td>2015-16</td>
<td>177,614 cases</td>
<td>2,525 cases of associated congenital syndrome</td>
</tr>
<tr>
<td>TUBERCULOSIS</td>
<td>2018 data</td>
<td>10,000,000 cases</td>
<td>1,500,000 deaths</td>
</tr>
<tr>
<td>HIV</td>
<td>2019 data</td>
<td>1,700,000 cases</td>
<td>690,000 deaths</td>
</tr>
<tr>
<td>COVID-19</td>
<td>As of Dec 4, 2020</td>
<td>65,000,000+ cases</td>
<td>1,500,000+ deaths</td>
</tr>
</tbody>
</table>

SPOTLIGHT: OUR RESPONSE TO COVID-19

In response to the COVID-19 outbreak, we are:

- Collaborating to accelerate the development of a vaccine for COVID-19 with the Biomedical Advanced Research and Development Authority (BARDA) and Beth Israel Deaconess Medical Center.
- Screening compounds to determine if any could help treat those who have the virus.
- Mobilizing to provide equipment, our products and financial donations to support organizations and healthcare workers on the frontlines.

JOHNSON & JOHNSON FOCUS AREAS

AIRBORNE PATHOGENS
We are awarding funding and mentorship opportunities to innovators working on solutions against airborne viruses through a series of J&J Innovation JLABS “QuickFire Challenges.” Partners: BARDA

EBOLA
Our innovative 2-dose vaccine regimen is approved by the European Commission and has been deployed in the Democratic Republic of the Congo (DRC) and Rwanda. Partners include: U.S. National Institutes of Health (NIH), Innovative Medicines Initiative (IMI), London School of Hygiene & Tropical Medicine, Bavarian Nordic

HIV
J&J has introduced 8 medicines over 25 years that have helped simplify HIV treatment. We are working to develop the world’s first long-acting therapeutic, and have the only preventive HIV vaccine in late-stage clinical development, with large-scale trials spanning four continents. Partners: NIH, Bill & Melinda Gates Foundation, HIV Vaccine Trials Network, USAMRDC, ViiV Healthcare

INFLUENZA
We are developing a novel vaccine and therapeutics to protect communities in the event of a future influenza pandemic. Partner: BARDA

TUBERCULOSIS
We developed the first new medicine in 40 years to tackle drug-resistant TB, have made a 10-year commitment to develop and deliver new innovations against TB, and recently pledged $500 million in investment to help turn the tide of both the TB and HIV pandemics. Partners: Bill & Melinda Gates Foundation, IMI

MIDDLE EAST RESPIRATORY SYNDROME (MERS)
We are exploring the development of a vaccine against MERS-CoV, another coronavirus that was first discovered in 2012 and has caused outbreaks of disease in humans. Partners: Coalition for Epidemic Preparedness Innovations (CEPI), Jenner Institute at the University of Oxford

SPOTLIGHT: FRONTLINE HEALTH WORKERS
In March 2020, the Johnson & Johnson Family of Companies and the Johnson & Johnson Foundation committed $50M for immediate COVID-19 response, primarily focused on supporting frontline health workers. This commitment builds upon a 10-year, $250M pledge to support those at the frontlines made in January through our Center for Health Worker Innovation and includes:

- $4.8M in donations of Personal Protective Equipment (PPE)
- $1.9M to the American Nurses Foundation Coronavirus Response Fund
- $1M to the CDC Foundation Combat Coronavirus Campaign
- $1M to the WHO Solidarity Fund
- Strategic partner to #FirstRespondersFirst, an initiative led by Thrive Global and the Harvard T.H. Chan School of Public Health to support the mental health and well-being of frontline health workers

Our effort to ensure pandemic preparedness and secure our collective health and economic security is just the latest example of J&J’s company-wide commitment to promote—and protect—health and well-being, and to change the trajectory of health for humanity.

For more information: www.jnj.com/OutsmartEpidemics

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