



CHARITÉ

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Virological distance and social distance impacts

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Reflections on Distancing to a Hazard

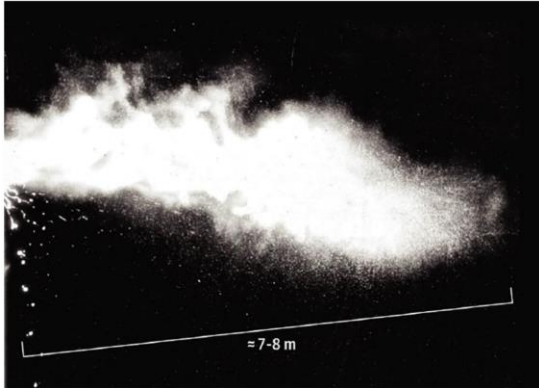
- **Virological Distancing:**
 - Droplets/Aerosols can travel > 2 meters
 - Environmental conditions & volume/concentration influence travel distance
 - Oversimplification
- **Social Distancing:**
 - Includes avoiding body contact, keeping distance, self-isolation, gatherings, travel, closure of “non-essential” workplaces, closure of schools, restricted access to care homes, etc.

Schroter 2020

Douglas, Katikireddi et al. 2020

Jones, Qureshi et al. 2020

Reflections on Distancing to a Hazard



Risk of Transmission



Type and level of group activity	Low occupancy			High occupancy		
	Outdoors and well ventilated	Indoors and well ventilated	Poorly ventilated	Outdoors and well ventilated	Indoors and well ventilated	Poorly ventilated
Wearing face coverings, contact for short time						
Silent	Low	Low	Low	Low	Low	Medium
Speaking	Low	Low	Low	Low	Low	Medium
Shouting, singing	Low	Low	Medium	Medium	Medium	High
Wearing face coverings, contact for prolonged time						
Silent	Low	Low	Medium	Low	Medium	High
Speaking	Low	Medium*	Medium	Medium*	Medium	High
Shouting, singing	Low	Medium	High	Medium	High	High
No face coverings, contact for short time						
Silent	Low	Low	Medium	Medium	High	High
Speaking	Low	Medium	Medium	Medium	High	High
Shouting, singing	Medium	Medium	High	High	High	High
No face coverings, contact for prolonged time						
Silent	Low	Medium	High	Medium	High	High
Speaking	Medium	Medium	High	High	High	High
Shouting, singing	Medium	High	High	High	High	High

Risk of transmission
 Low Medium High

* Borderline case that is highly dependent on quantitative definitions of distancing, number of individuals, and time of exposure

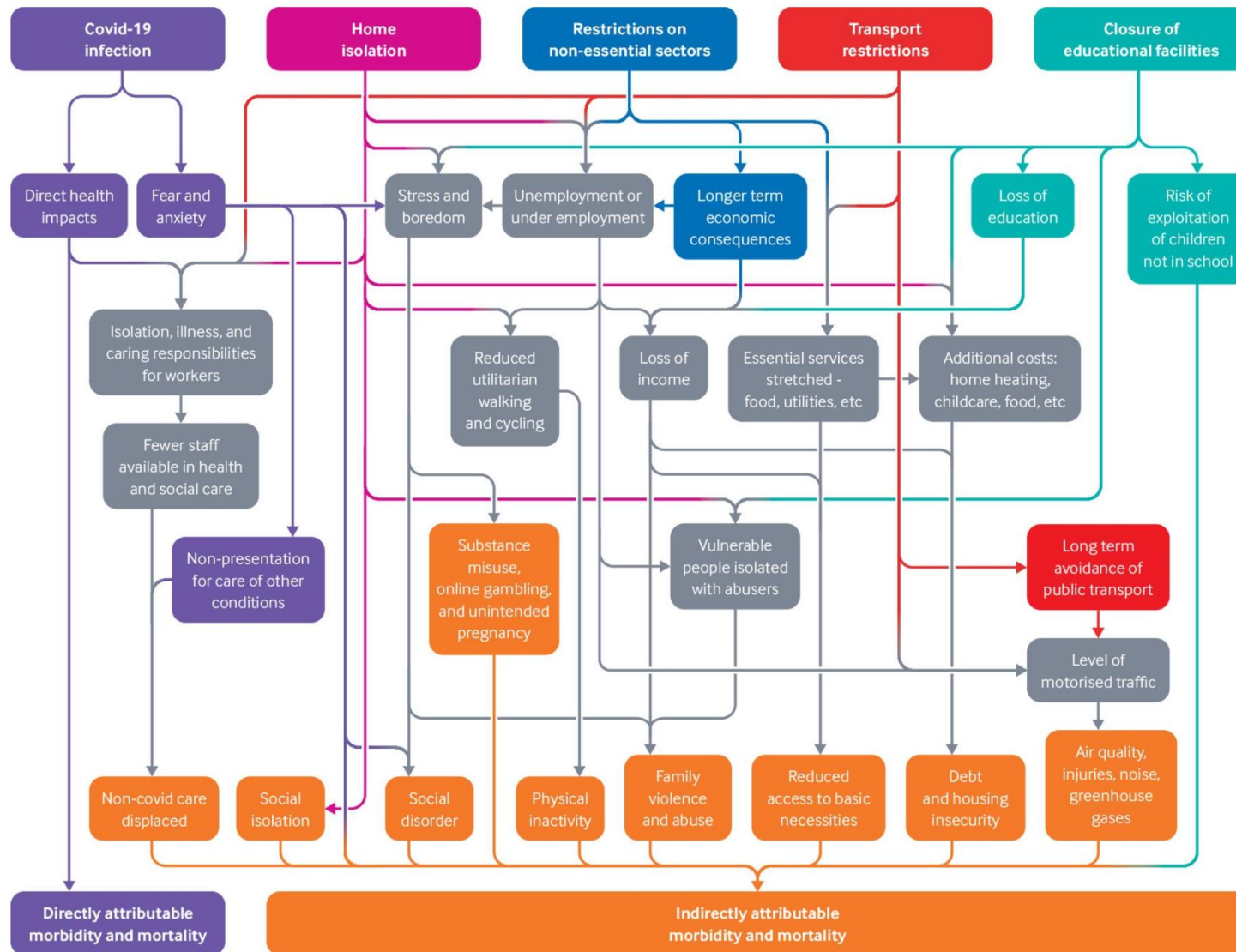
Jones, Qureshi et al. 2020

Current Scientific Background

- Research on social distancing and its impacts is emerging
- Observational data?
- Ongoing/dynamic pandemic: Great number of changing variables
- Physical distancing versus social distancing
- Social distancing measures are effective, bundles/lockdown
- Early implementation is effective

Islam, Sharp et al. 2020

Health Outcomes



Douglas and Katikireddi et al. 2020

Health Outcomes

- Social distancing can lead to social isolation
- Bundle of negative effects: Inactivity, unhealthy diet, drinking, smoking, cardiovascular disease,...
- Worsening of mental health, anxiety, post-traumatic stress disorders, depression, dementia, sleep problems
- Isolation affects vulnerable people most: Slow groups, patients with chronic conditions

Gupta and Dhamija 2020

Gilan and Röhke et al. 2020

Thank You

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