UCL CENTRE FOR BEHAVIOUR CHANGE
Director: Prof Susan Michie

Limiting Covid-19 transmission: a behavioural perspective

Susan Michie

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@SusanMichie

Introduction

UCL CENTRE FOR BEHAVIOUR CHANGE
@UCLBehaveChange

Collaborations and networks

- Researchers, consultants, trainers & practitioners in behaviour change
- A cross-disciplinary community of academic experts at UCL & beyond
- Global network of > 4,000 contacts

Translation of science

- International Summer Schools
- Annual Conference
- MSc in Behaviour Change
- Hubs for exchanging skills, ideas, resources
  - Environment & Behaviour
  - Digi-hub

CBC Summer School

& ENVIRONMENT & BEHAVIOUR

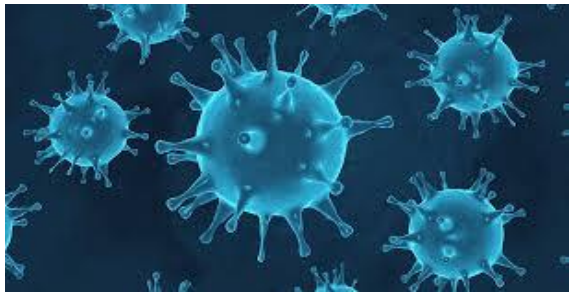
My COVID-19 Scientific Advice to Governments

1. Member of UK Government behavioural advisory group

2. WHO COVID-19 consultant advisor on behavioural science

UK: Psychologists working across Government

UK Government COVID-19 Behavioural Advisory Group



- Includes >12 psychologists: health, social, emergency
  - Plus anthropologists, sociologists, behavioural scientists, communication experts
- Advice draws on range of sources
  - e.g. published literature, unpublished reports, surveys, interviews, focus groups and expert opinion

Behavioural science papers produced for UK Government e.g.

- General
  1. Improving adherence to Government guidance
  2. Options for lifting or tightening restrictions
  3. Effective communication strategies
- Specific
  1. School closures, self-isolation, household isolation
  2. Social disorder and policing strategies
  3. Presentation of diagnostic and antibody testing
  4. Managing deaths and funerals
  5. Establishing 'social bubbles'/micro-communities

This Talk

1. **Human behaviour** is the
   a. route by which the Coronavirus is transmitted between people
   b. means by which the Covid-19 pandemic will be suppressed
2. **Behavioural scientists** have much to contribute in reducing transmission behaviours
3. **Communicating** behavioural science can be done efficiently with frameworks, models and diagrams

- https://blogs.bmj.com/bmj/2020/03/11/slowing-down-the-covid-19-outbreak-changing-behaviour-by-understanding-it/
- https://www.qeios.com/read/F6M5CB

Reducing transmission: Isolation and social distancing

- To suppress the pandemic, Governments have focused on
  - Isolation: keeping vulnerable people and infected people physically away from others
  - Social distancing: staying at home except for essential journeys, banning gatherings, and closing non-essential shops and establishments where people congregate
- Isolation and social distancing
  - effective in controlling epidemics
  - enormous cost to people's livelihoods, education, and mental health, and the global economy
- **Alternative:** widespread and rigorous adherence to Personal Protective Behaviours
  - could potentially reduce the extent to which we rely on the disruptive, top-down isolation and social distancing measures

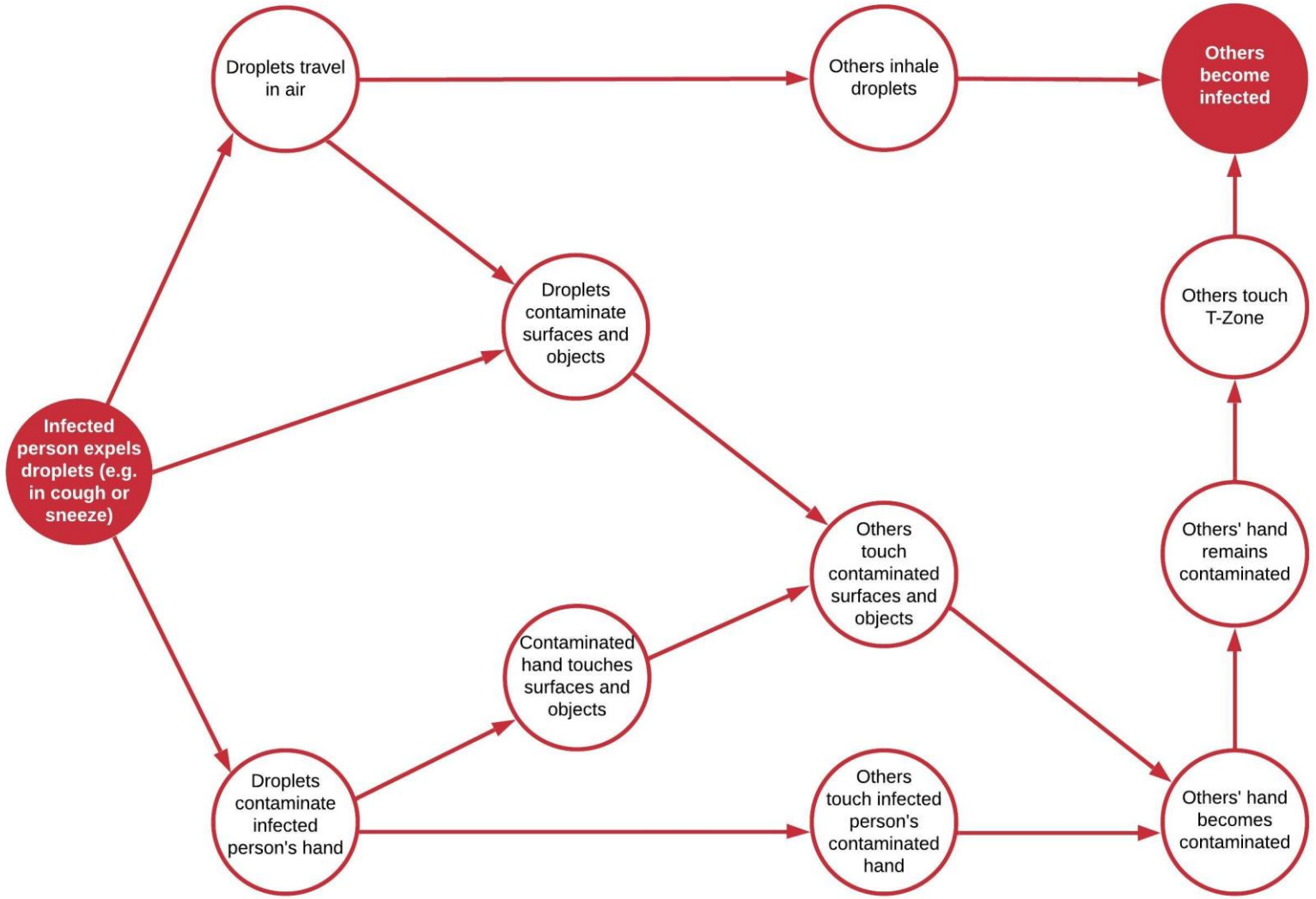
Personal Protective Behaviours (PPBs)

- If we can change the following at population level, we would suppress the pandemic:
  1. Washing hands with soap
  2. Not touching the T-zone (eyes, nose, mouth)
  3. Sneezing and coughing into tissues and disposing of them
  4. Social distancing
- We could solve a big problem by changing behaviour at scale
- A diagram of behavioural transmission and behavioural blocks ….

West, Michie, Rubin, Amlot (2020) Applying principles of behaviour change to help limit the spread of COVID-19, *Nature Human Behaviour.* https://www.nature.com/articles/s41562-020-0887-9

Pathways to SARS-CoV-2 transmission: the behaviours and measures to block them

Large circles = stages in the pathway.
Red arrows = routes of transmission.
Crosses in small circles = blocks.
Rectangles = behaviours to block transmission routes (red borders = final transmission route).
Dotted arrows point to the blocking points.



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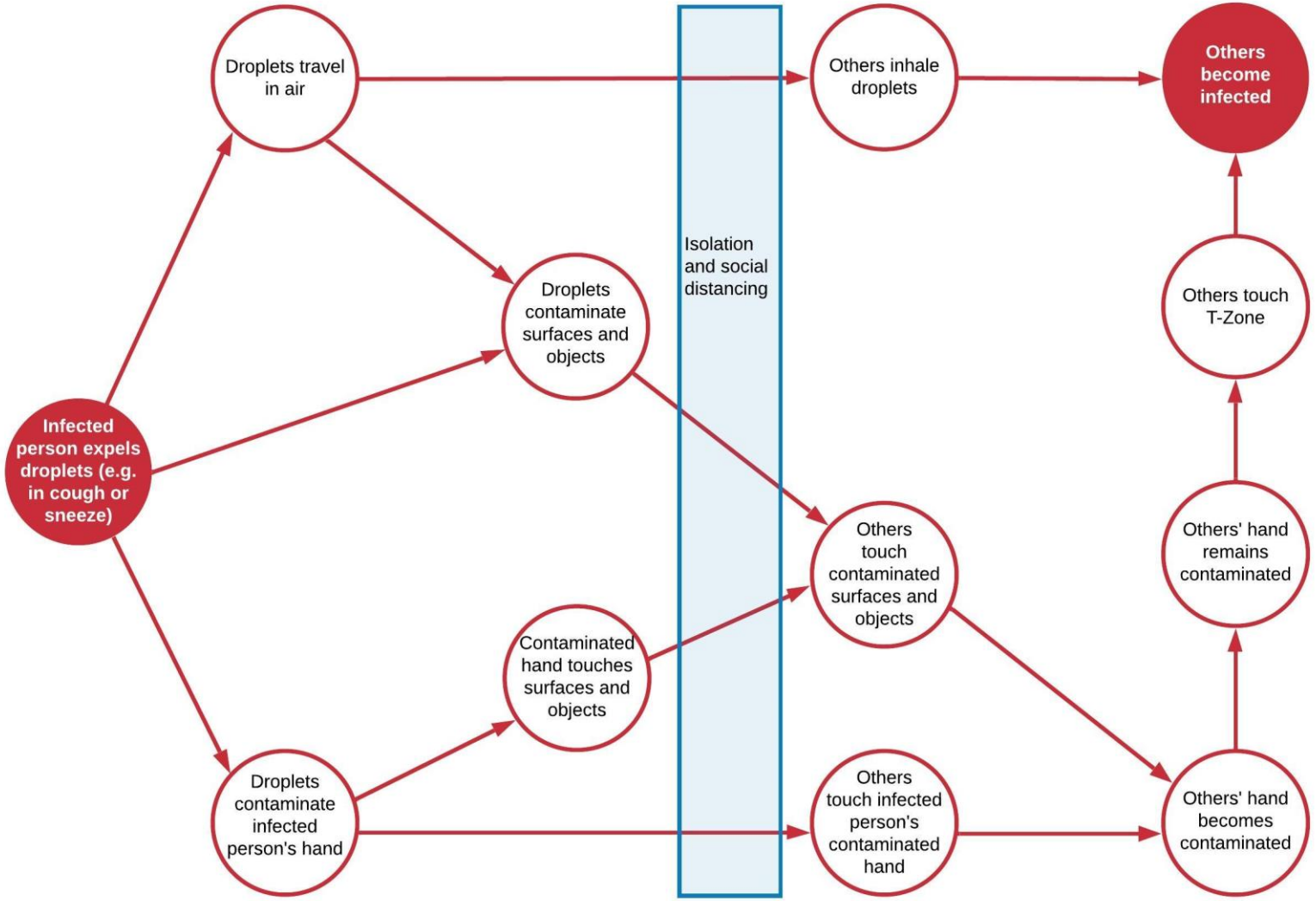

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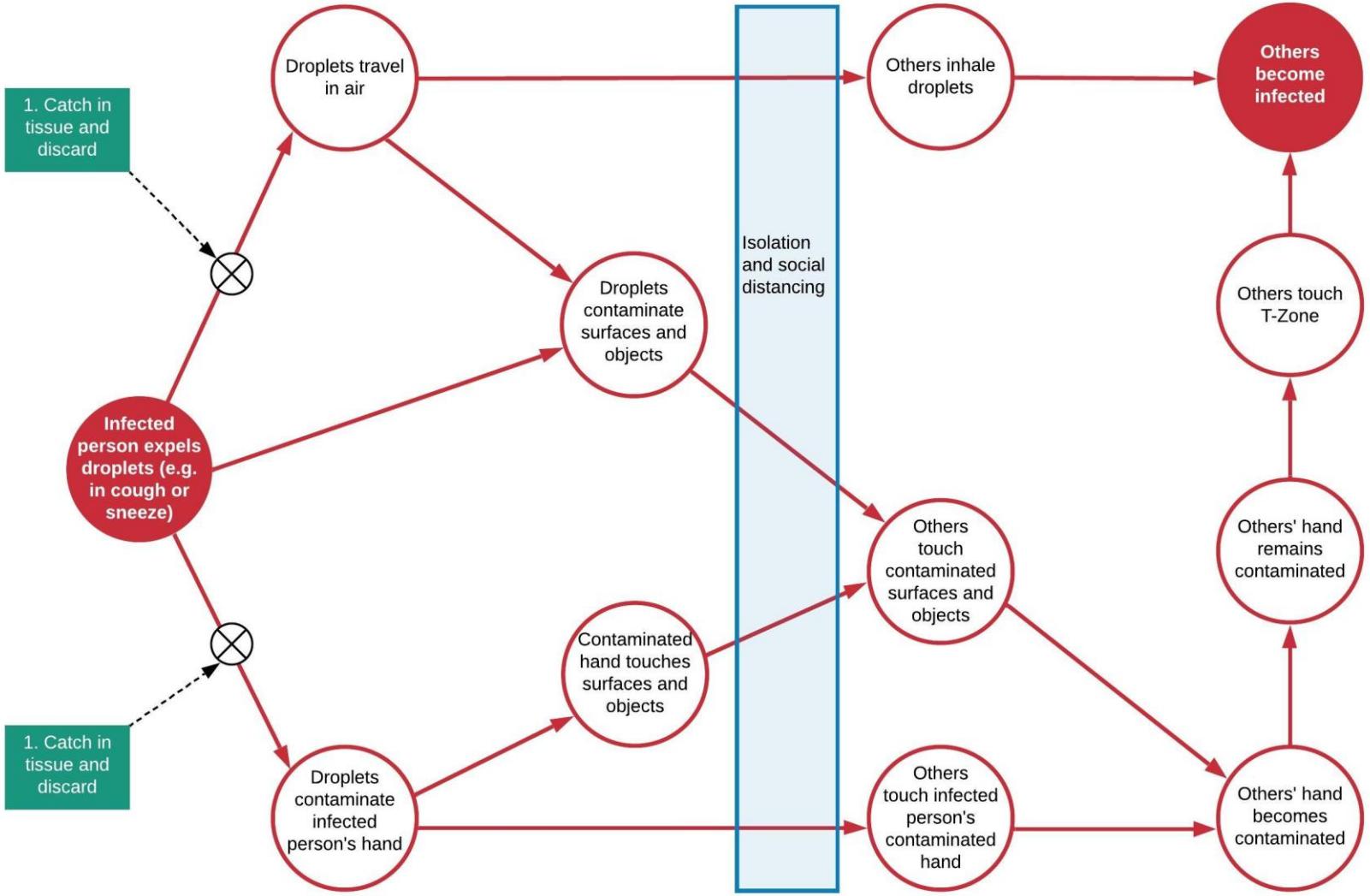

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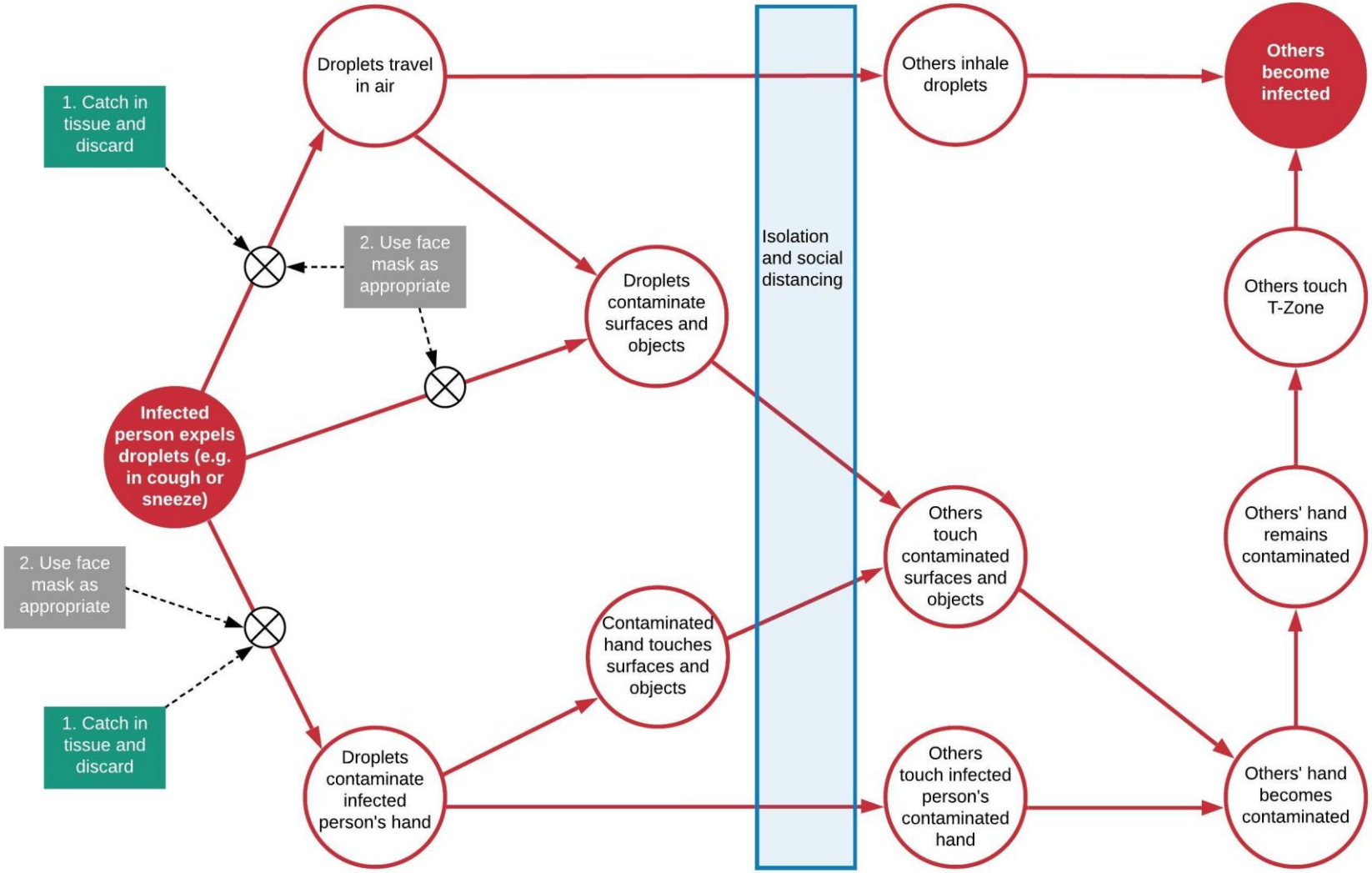

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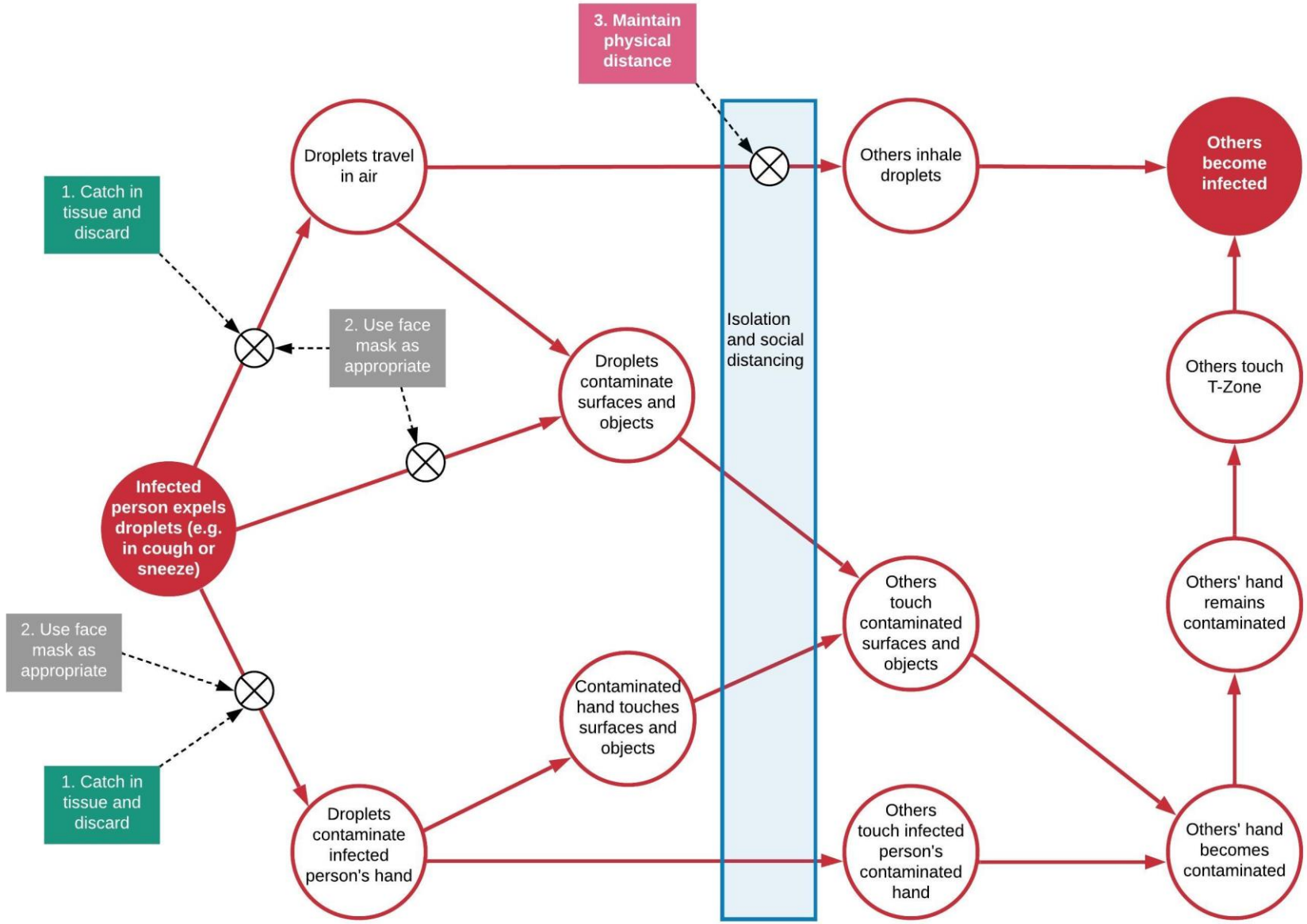

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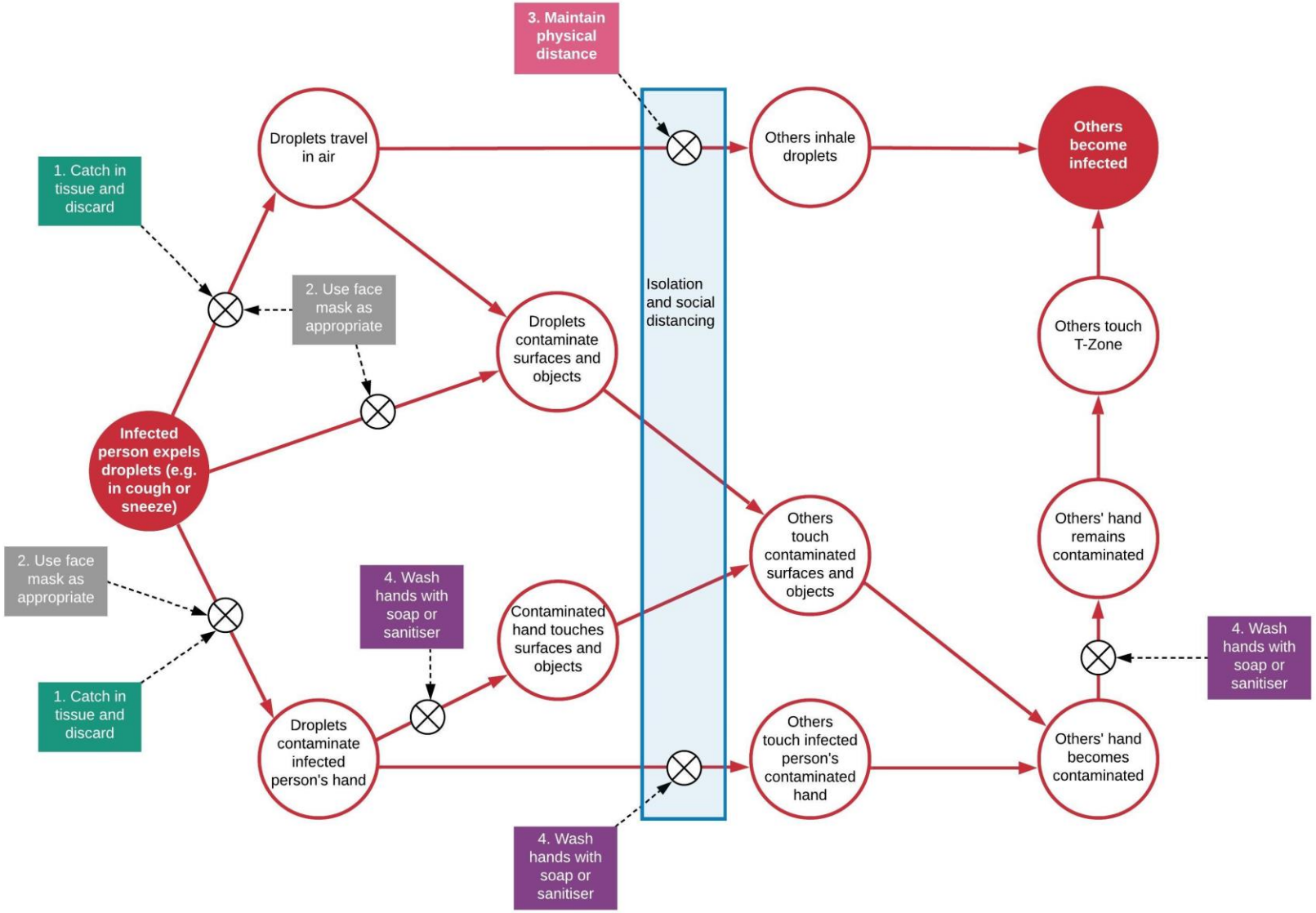

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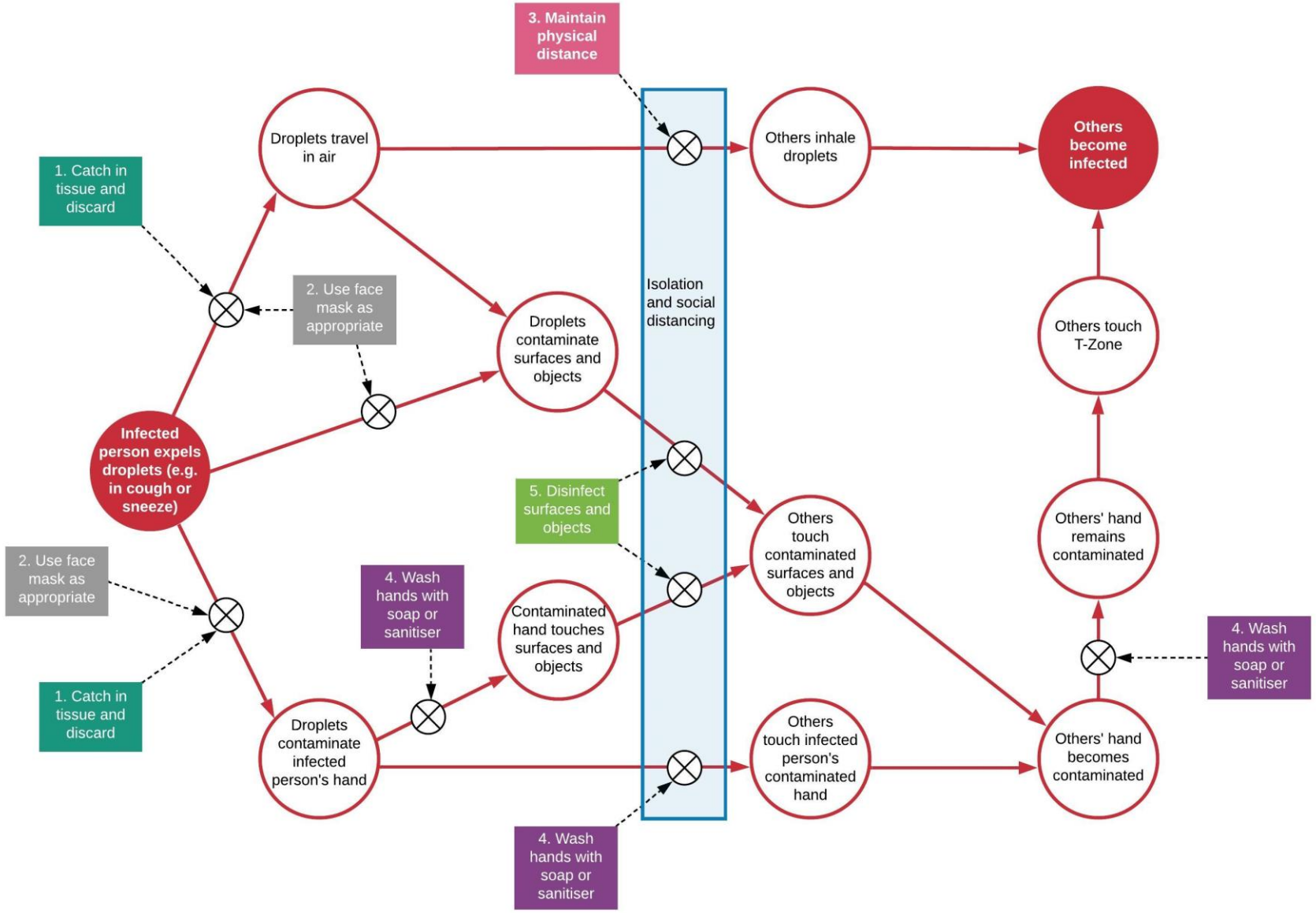

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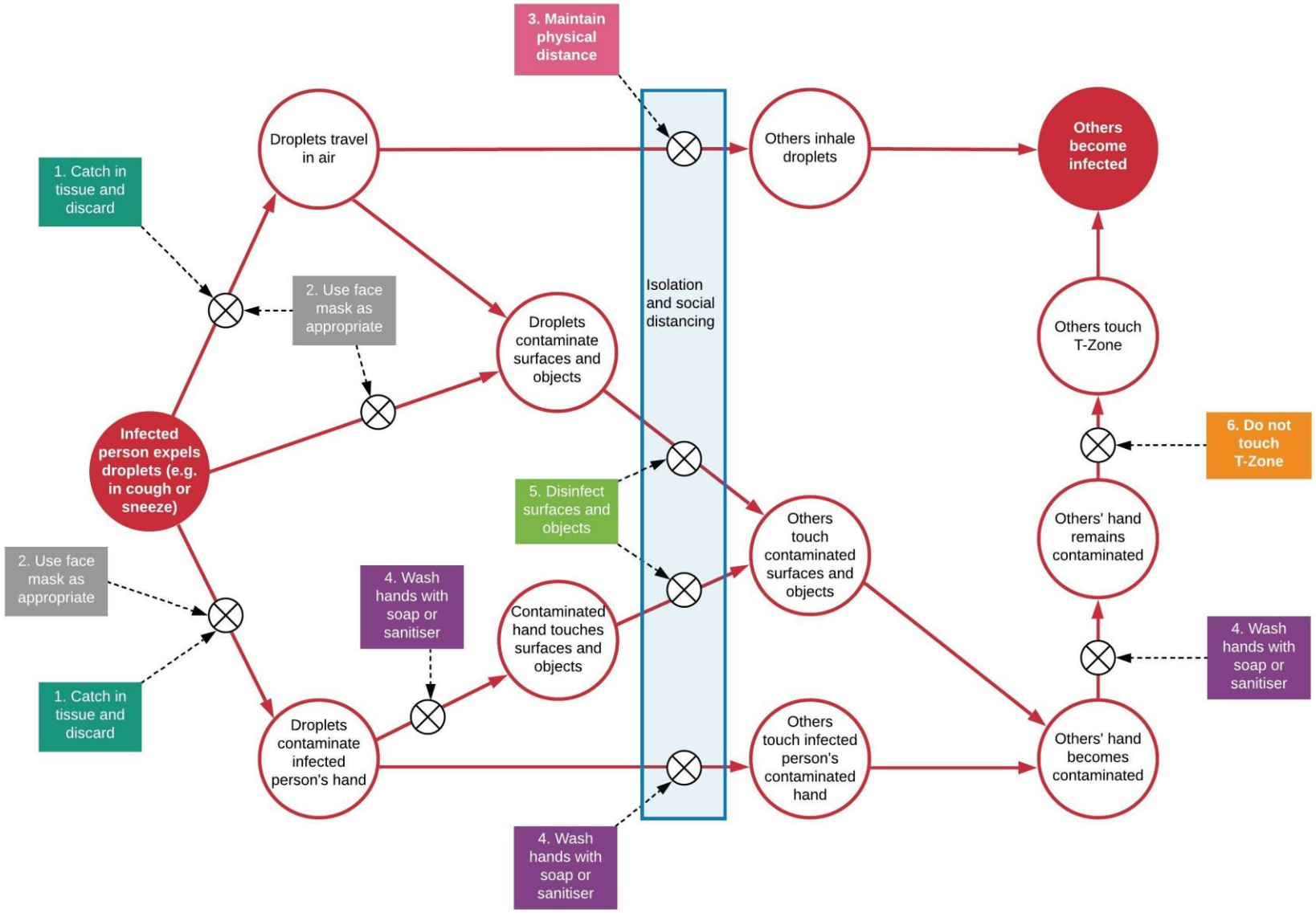


Interventions: different for different personal protective behaviours

1. Washing hands with soap

- Requires establishing new rules
- 'If-then' plans to link behaviour with settings e.g. entering buildings, before eating/preparing food

2. Not touching the T-zone (eyes, nose, mouth)

- Requires breaking an automatic habit or responding to urge
- Develop an incompatible behaviour e.g. keep hands below shoulder level or additional behaviour – washing hands before and after

3. Sneezing and coughing into tissues and disposing of them

- Requires accessible tissues
- Requires new routines to ensure one has tissues to hand e.g. checking bag/pocket every morning

4. Social distancing

- More complex, depends on other people, neighbourhood and work situations, travel options etc

Working with policy-makers: Challenges and solutions

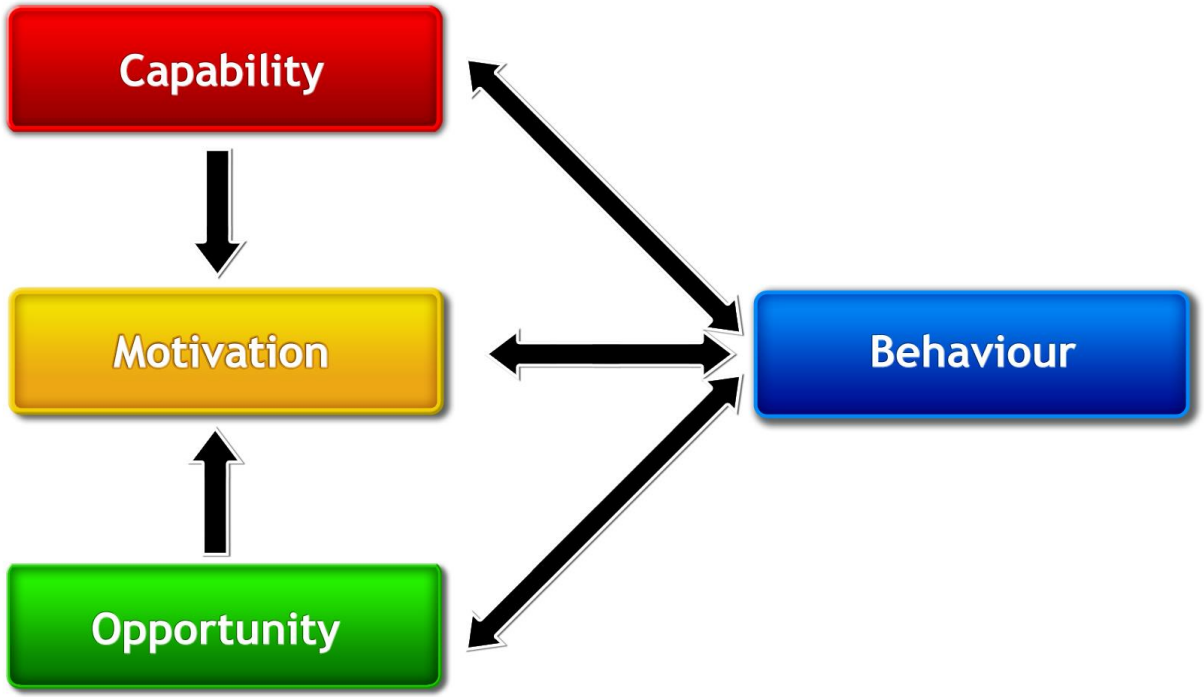
Challenges

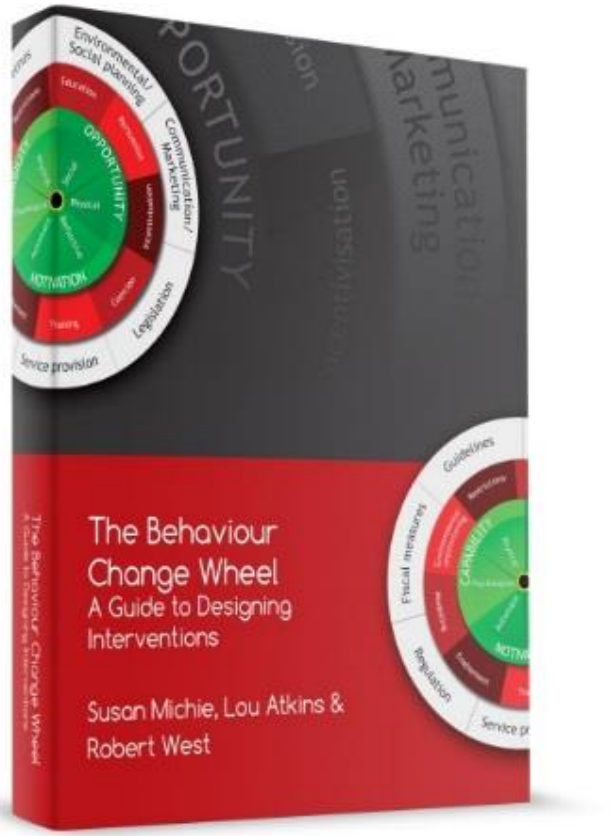
- Working with and across Government
  - differing agendas, incentives and terminology
- Ensuring that behavioural science thinking and evidence have an impact

Solutions

- Use frameworks and models that simplify and translate
- Use templates to structure complex information into actionable recommendations

Draw on a simple model of behaviour: COM-B





Michie et al (2011) *Implementation Science*

Need to understand reasons for behaviour

- **Before** suggesting interventions
- For example …

In April, UK Health Secretary threatened to prevent people going outdoors if reports of groups out in the sun continued

1. *Error 1*: Polling data show despite profile in media, this represented 2% of people and 99% of population wanted to adhere
2. *Error 2*: The reason that many people were not keeping 2 metres apart was due to crowded open spaces – problem was **opportunity** rather than **motivation**
3. *Error 3*: Threatened action was the wrong solution for the wrong problem

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Understanding behaviour: translating data into recommendations

- Countries have access to large amounts of complex data but differ greatly in their resources to:
  - Interpret data
  - Translate data into actionable recommendations

WHO: Sharing global survey data to enable policy & practice

KANTAR

Kantar's COVID19 National Barometer: Snapshot 2

Snapshot of the 27th-30th March

Prepared for WHO
7th April 2020

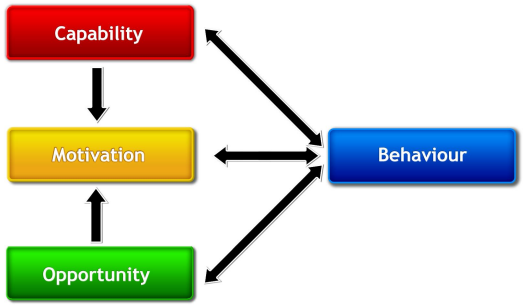
World Health Organization

WHO behavioural insights team

How to make large amounts of complex data useable and useful to countries?

My behavioural consultancy work

- Developed a template to
  1. Extract key messages
  2. Organise messages into coherent categories
  3. Link them to a model of behaviour
  4. Translate them into actionable policies



Template Questions

1. How is the population
   a. Feeling (e.g. concern, anxiety)
   b. Thinking (e.g. knowledge, risk perception)
   c. Behaving (e.g. health-related behaviours, media consumption)?
2. To what extent is the population adhering to guidance?
3. What are the influences on adherence
   - Capability, Opportunity and Motivation?

Excerpt from Template: Brazil

1. How is the population
   a. Feeling (e.g. concern, anxiety)
   b. Thinking (e.g. knowledge, risk perception)
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2. To what extent is the population adhering to guidance?
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How is the population:	Survey finding	Context/ interpretation	Application: Action point/s
Feeling (add rows as appropriate)			
Feeling 1	Brazilians have relatively low levels of concern around health	Country leadership consistently underplays severity of the virus	Communicate severity of the pandemic using trustworthy sources re. deaths, overpowering health services and future of economy and quality of life in Brazil
Feeling 2	Concern is increasing around economic stability	Value of the Real currency drops to a historic low; there is a day to day impact felt by nearly three-quarters of the population	Emphasise positive effect on economy of adherence to public health advice in messages aimed at promoting adherence to guidance to manage pandemic

Conclusion

1. Pandemics are global; developing solutions also needs to be global, strengthening international scientific work and application
2. Behaviour is at the heart of transmitting Covid-19 and at the heart of suppressing it
3. To most effectively change population-wide behaviour, need to draw on the science of behaviour and behaviour change
4. Models and templates are useful in
   - summarising and communicating what we know accessibly
   - translating scientific thinking and evidence into policy and practice

For more information

https://www.nature.com/articles/s41562-020-0887-9.pdf

Special section article | Open Access

Reducing SARS-CoV-2 transmission in the UK: A behavioural science approach to identifying options for increasing adherence to social distancing and shielding vulnerable people

Susan Michie, Robert West, M. Brooke Rogers, Chris Bonell, G. James Rubin, Richard Amlôt

First published:19 May 2020 | https://doi.org/10.1111/bjhp.12428

Access bmj.com
thebmj

1. Michie S, Rubin GJ & Amlot R (2020). Behavioural science must be at the heart of the public health response to covid-19. *BMJ Opinion, February 28th*. https://blogs.bmj.com/bmj/2020/02/28/behavioural-science-must-be-at-the-heart-of-the-public-health-response-to-covid-19/
2. Michie S, West R & Amlot R (2020). Behavioural strategies for reducing covid-19 transmission in the general population. *BMJ Opinion*, March 3rd. https://blogs.bmj.com/bmj/2020/03/03/behavioural-strategies-for-reducing-covid-19-transmission-in-the-general-population/
3. Michie S, West R, Amlot R, Rubin J. (2020) Slowing down the covid-19 outbreak: changing behaviour by understanding it. *BMJ Opinion*, March 11th. https://blogs.bmj.com/bmj/2020/03/11/slowing-down-the-covid-19-outbreak-changing-behaviour-by-understanding-it/