

Complex systems and public health

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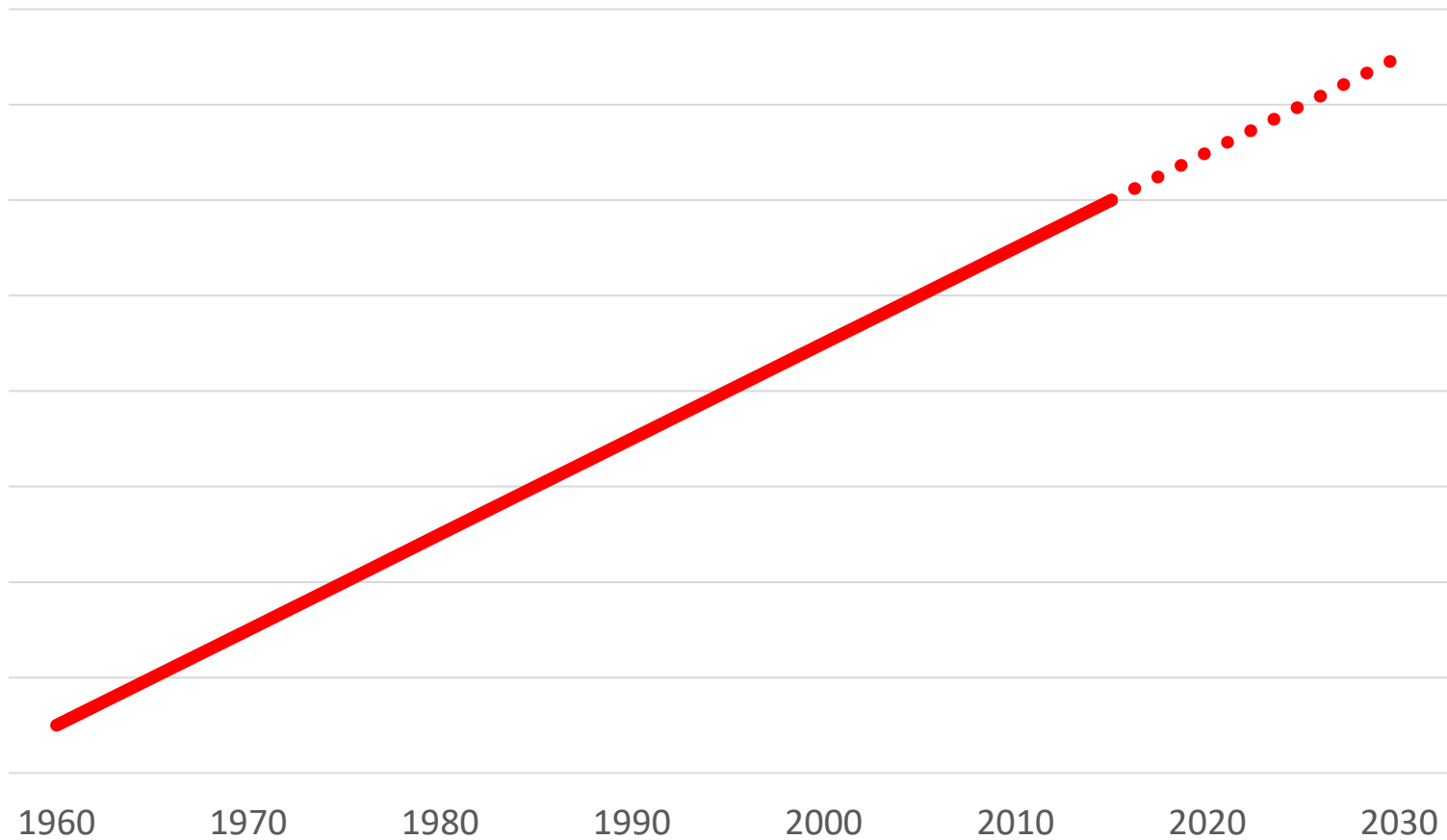


Obesity...

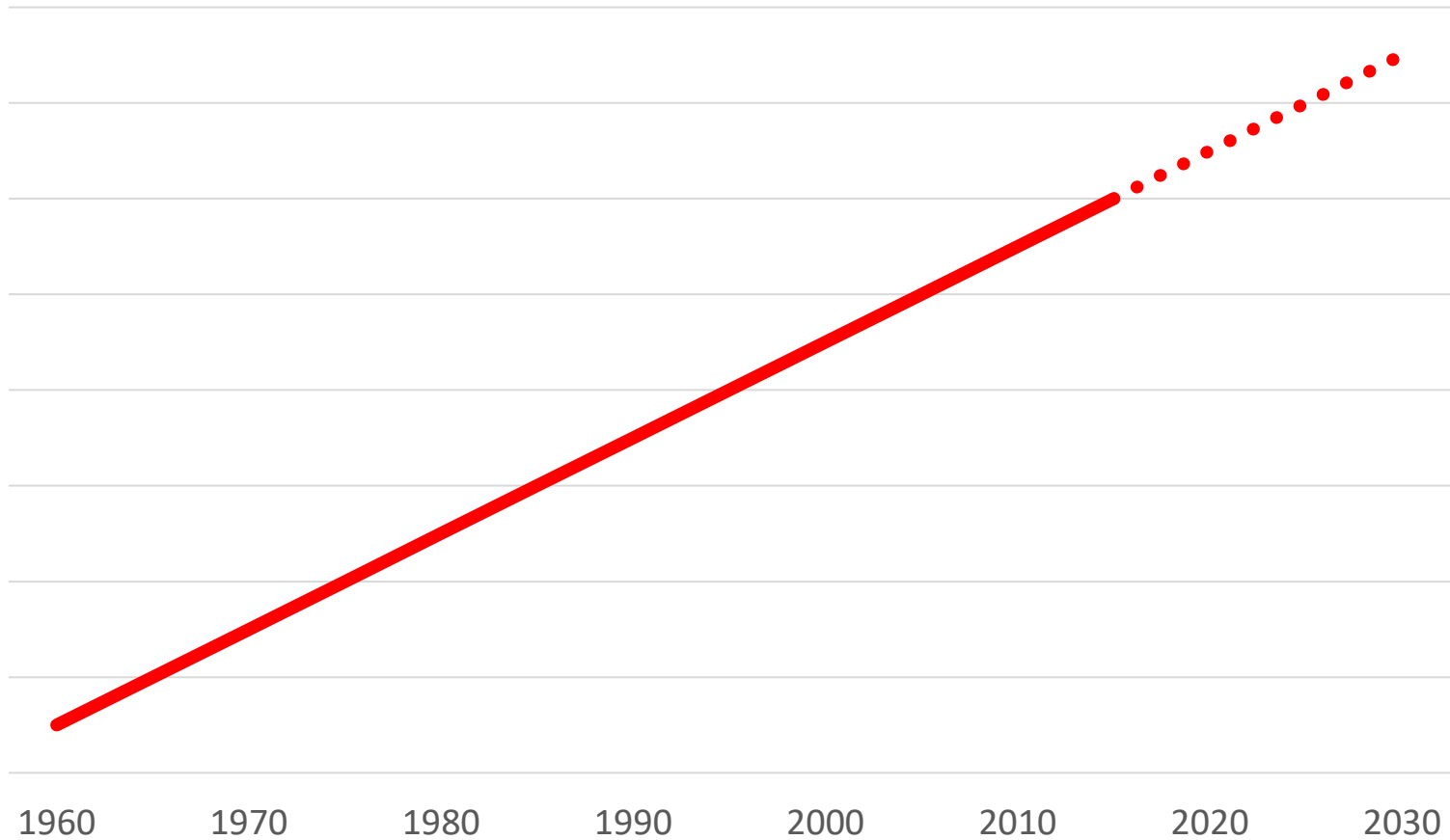




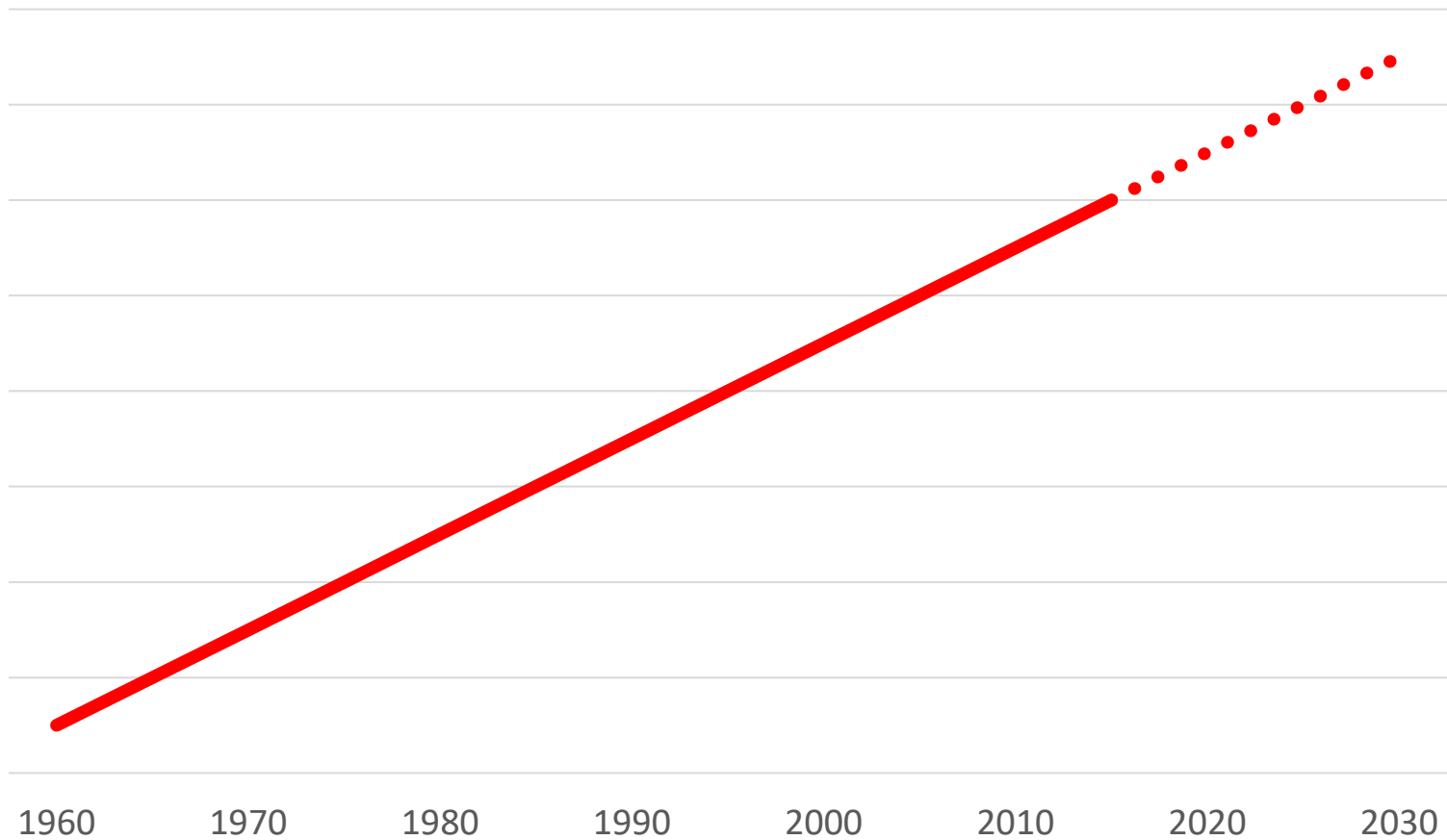
Population stupidity



Average laziness

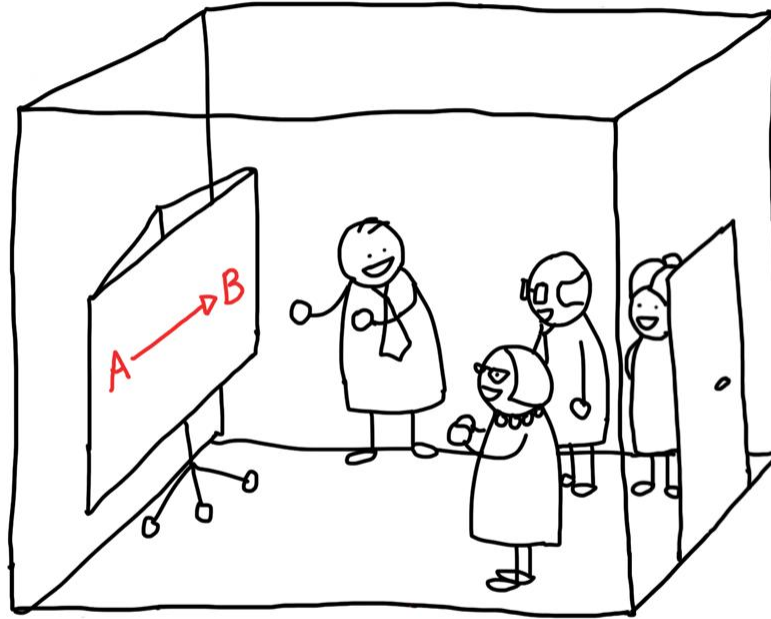


Median greed





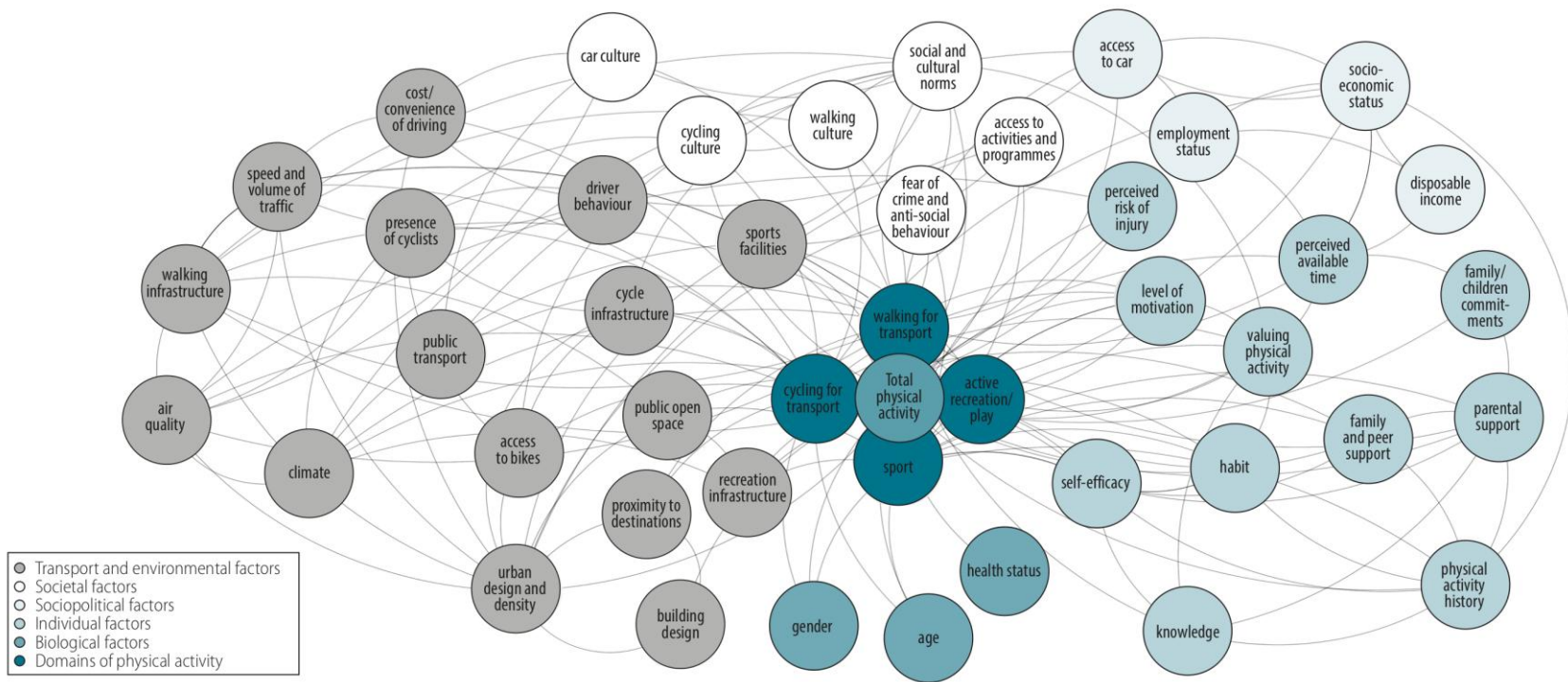
Complex adaptive systems





Complex adaptive **systems**

Fig. 1. An initial physical activity system map



Note: This map provides an illustration of some of the main drivers of physical activity and inactivity, and the relations between them, based on evidence from systematic reviews and expert opinion. The map is a tool to illustrate the breadth of factors driving physical activity, and does not purport to provide a definitive description of all possible ways of conceptualizing the physical activity system.

MORE ACTIVE PEOPLE FOR A HEALTHIER WORLD



Complex adaptive systems

[illegible]

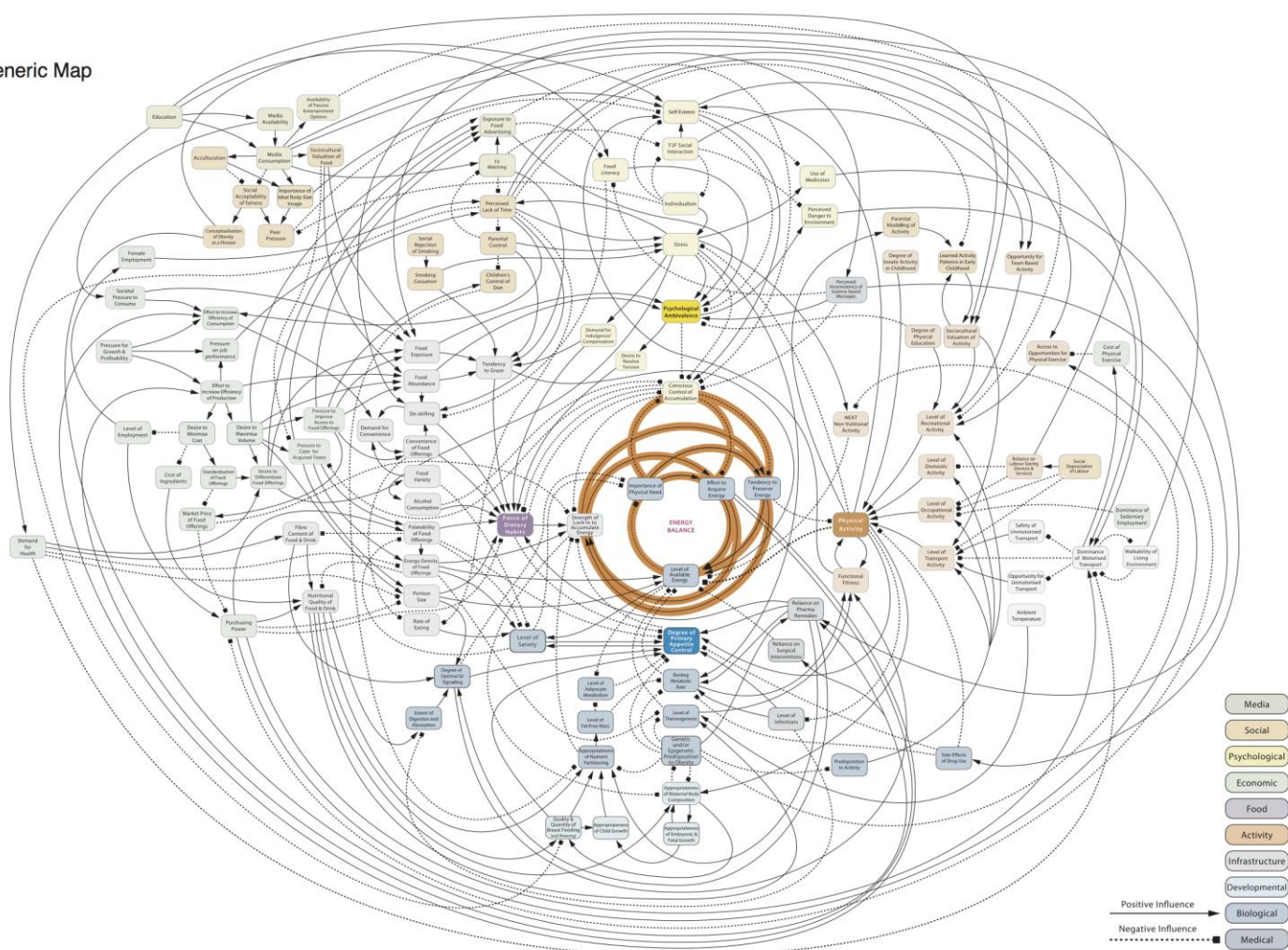
EX LIBRIS
David T. Craig

SHEET 1 OF 2
REF: 04373 APOLLO SATURN AS-301

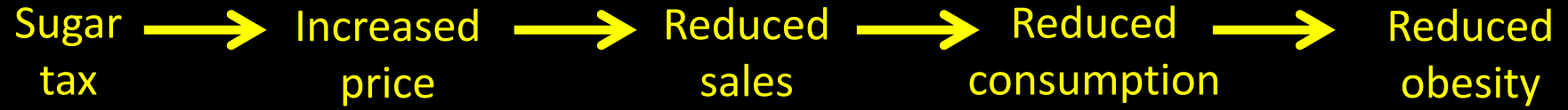
THE BOEING COMPANY SPACE DIVISION, LAUNCH SYSTEMS BRANCH MUNTSVILLE, ALA 35897	
SATURN V APOLLO FLIGHT CONFIGURATION	
ISSUED FOR: BOEING BY: MUNTSVILLE ENGINEERING	DATE: 1 MARCH 1968 DRAWN BY: DOUG SPRADUE

FOR ADDITIONAL COPIES, PHONE:

Full Generic Map



Complex **adaptive** systems



Political
lobbying
PR offensive
Media



Sugar
tax

↑
Minimise
magnitude

Price
restructuring
Reformulation



Increased
price

↑
Minimise
changes

Advertising
Marketing
Promotions



Reduced
sales

↑
Minimise
impact

Divert
attention



Reduced
consumption

↑
Obfuscate

Undermine
the
evidence



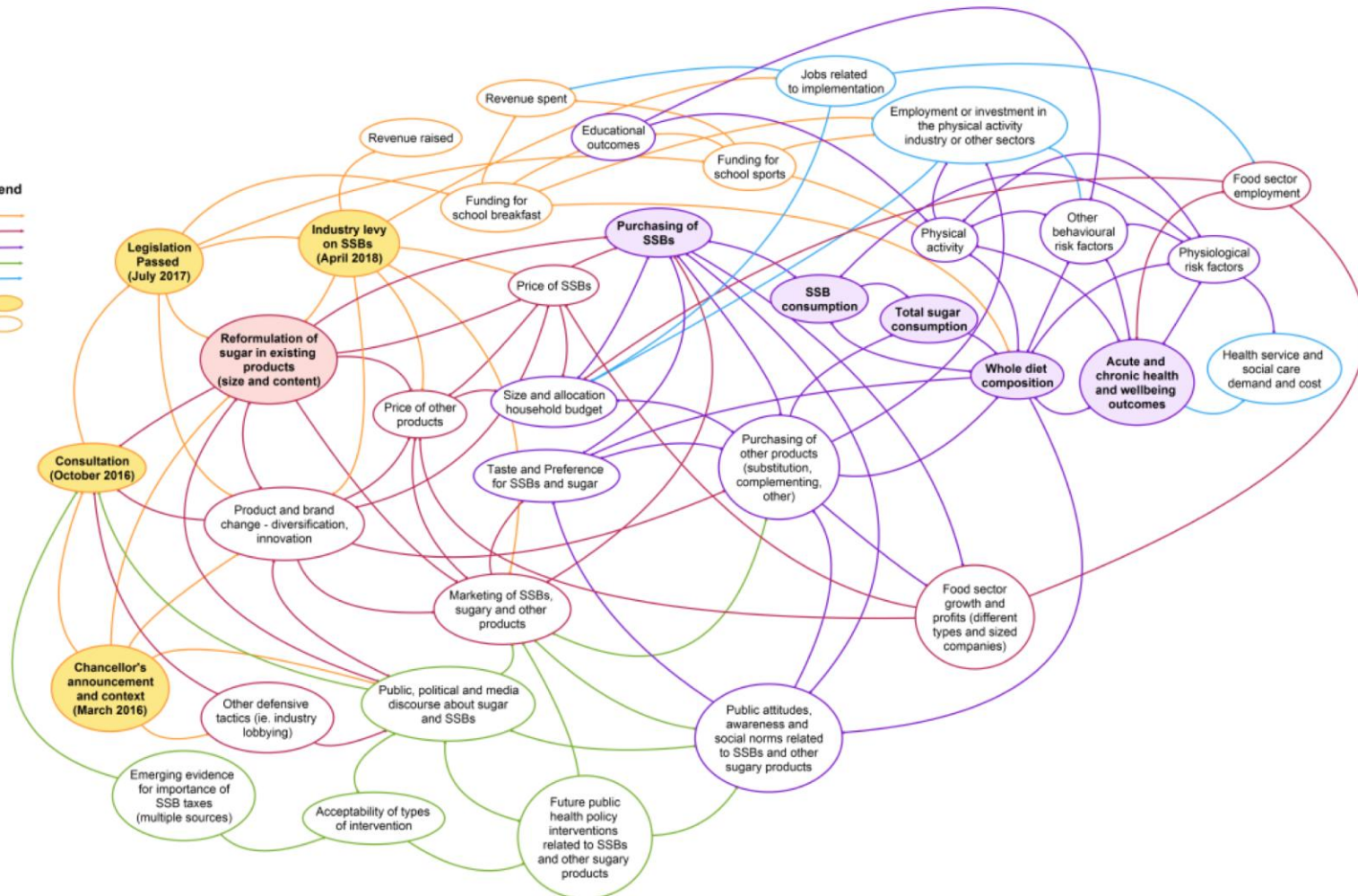
Reduced
obesity

↑
Manipulate
the discourse



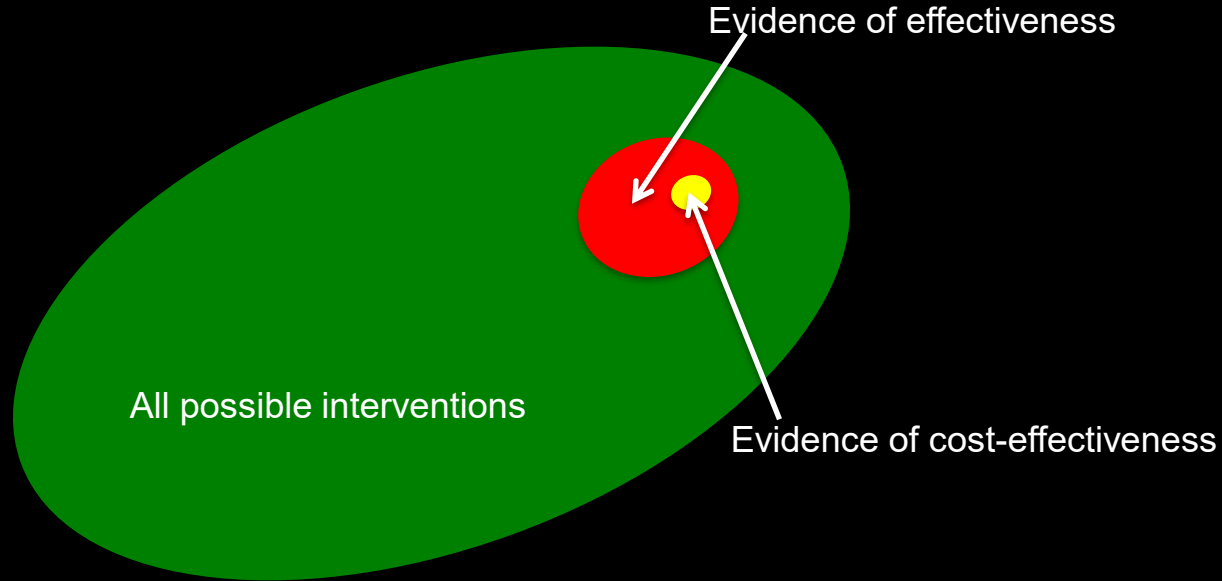
System Legend

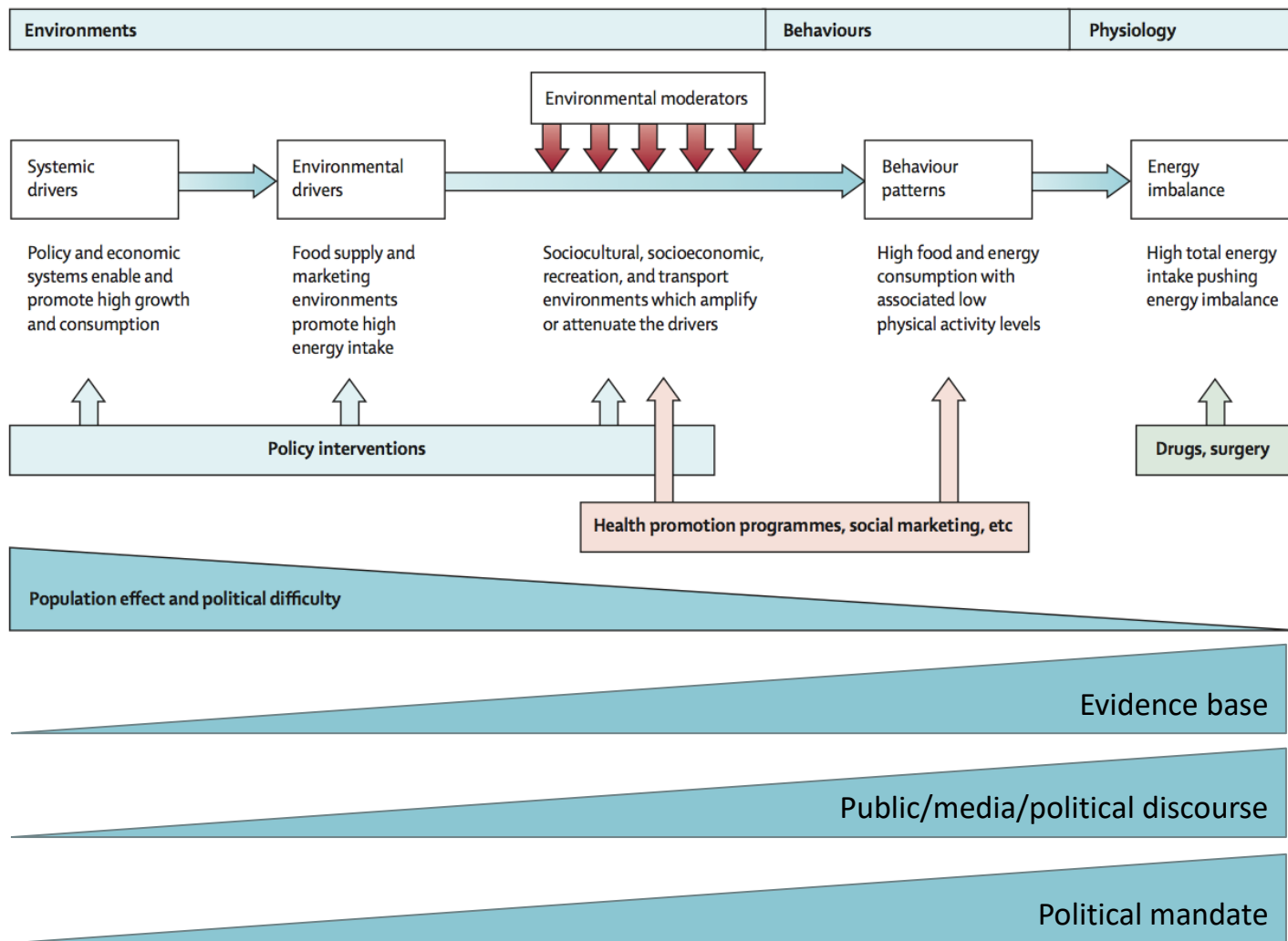
- Government Actions
 - Food Industry Actions
 - Consumer Behaviour
 - Public Acceptability and Discourse
 - Other Sector Actions
- Shaded - Concepts on primary pathway
Non-shaded - Concepts beyond the primary pathway



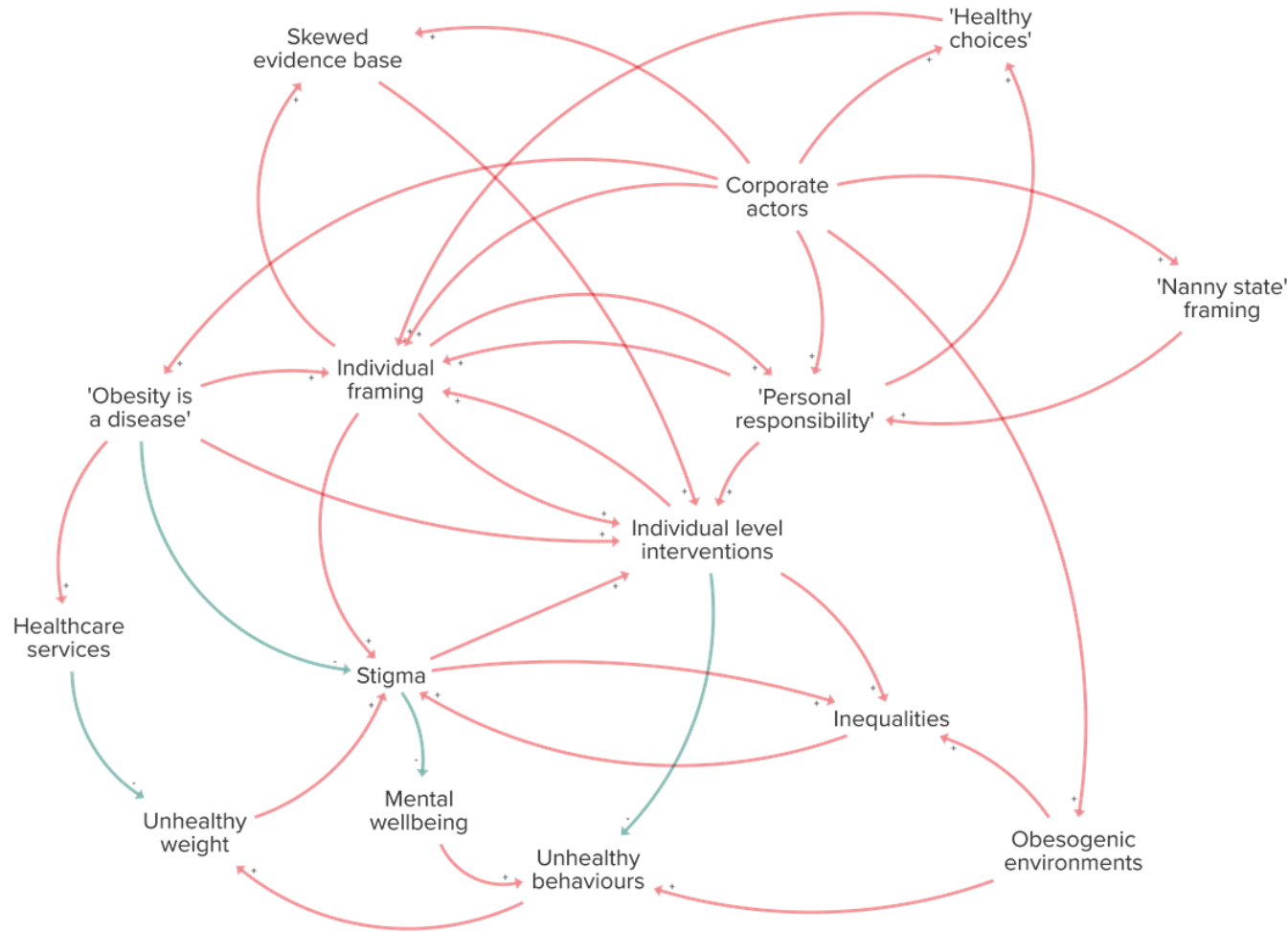
Evidence

The dangerous olive of evidence...



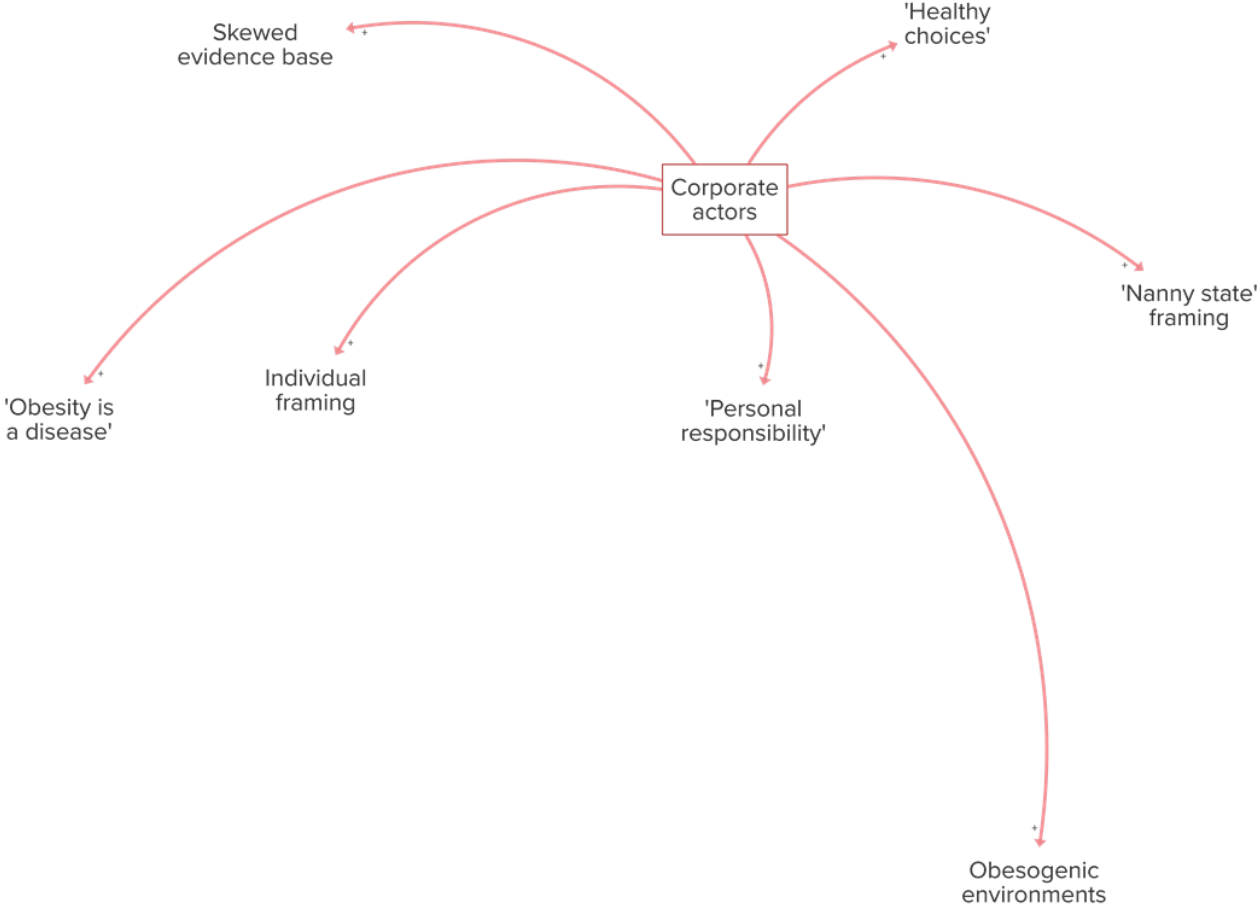


Factors shaping obesity



Legend
— Reduces
— Increases
— Neutral

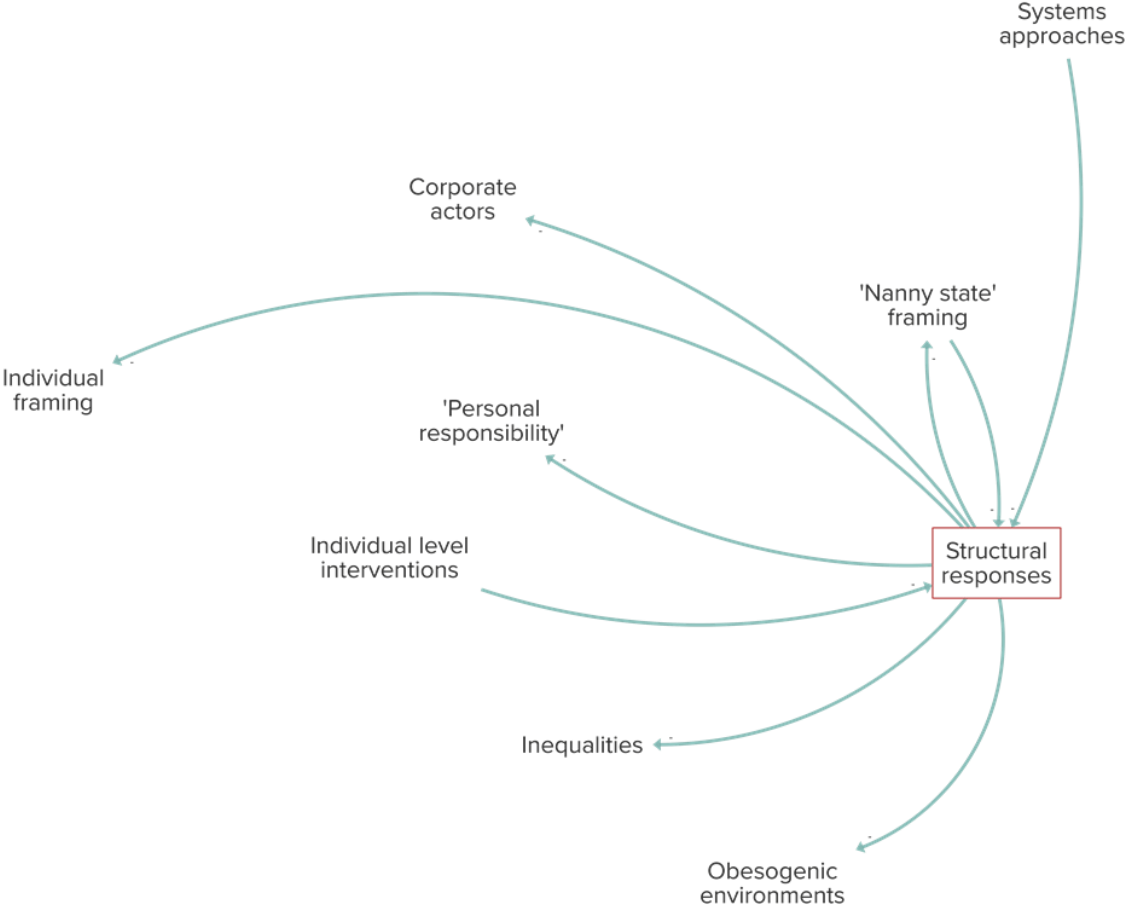
Corporate actors



Legend

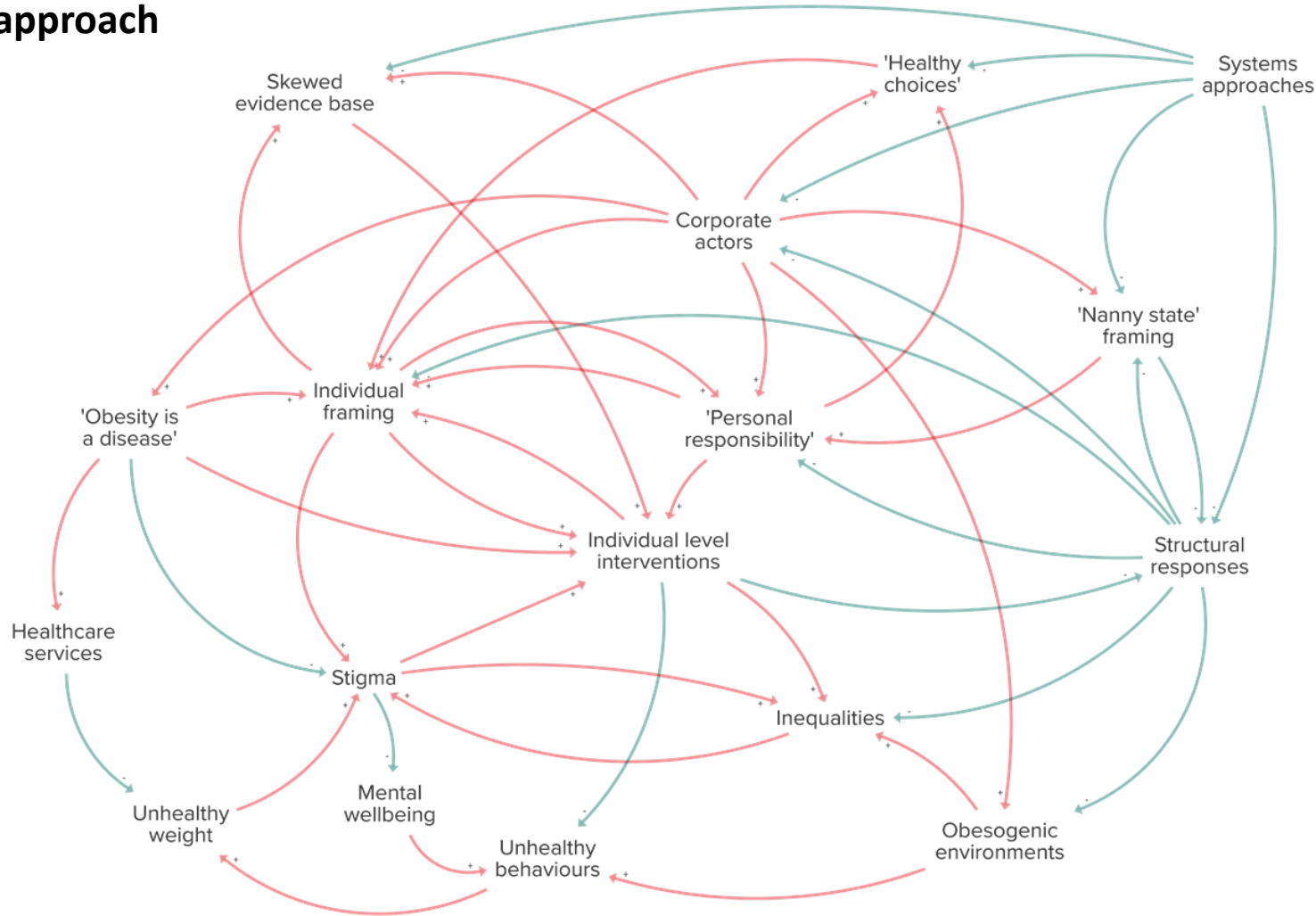
- Reduces
- Increases
- Neutral

Structural responses



Legend
— Reduces
— Increases
— Neutral

Systems approach





Conclusions

- Simple responses grounded in linear models of cause and effect, focused on individual level behavioural change, have largely failed
- Effective action requires a shift away from this narrow emphasis on individuals towards actions to reshape systems over the short, medium and long term
- This entails acting on levers to reshape systems at different levels over time; interventions are a means to an end, not the end in itself
- Engaging meaningfully with complexity requires new approaches to the generation and application of evidence in research, policy and practice
- Instead of only asking 'what do I do now' we should first agree long term vision and define medium term strategy before *then* identifying short term actions

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- **Det er ikke rakettvitenskap - bare spill sjakk, ikke dam**