

Addressing structural racism with community-based system dynamics

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December 8, 2020





HISTORY MATTERS:

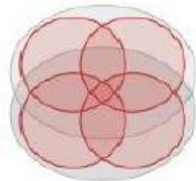
UNDERSTANDING THE ROLE OF POLICY, RACE AND REAL ESTATE IN TODAY'S
GEOGRAPHY OF HEALTH EQUITY AND OPPORTUNITY IN CUYAHOGA COUNTY

A Policy Brief Prepared on behalf of the Cuyahoga County PlaceMatters Team

Prepared by the Kirwan Institute for the Study of Race & Ethnicity &

The City & Regional Planning Program at the Knowlton School of Architecture

The Ohio State University



KIRWAN INSTITUTE
for the Study of Race and Ethnicity



CUYAHOGA COUNTY

PLACEMATTERS

Framework for Action



OUR VISION

Cuyahoga County is a place where all residents live, work, learn, and play in safe, healthy, sustainable, and prosperous communities.

OUR MISSION

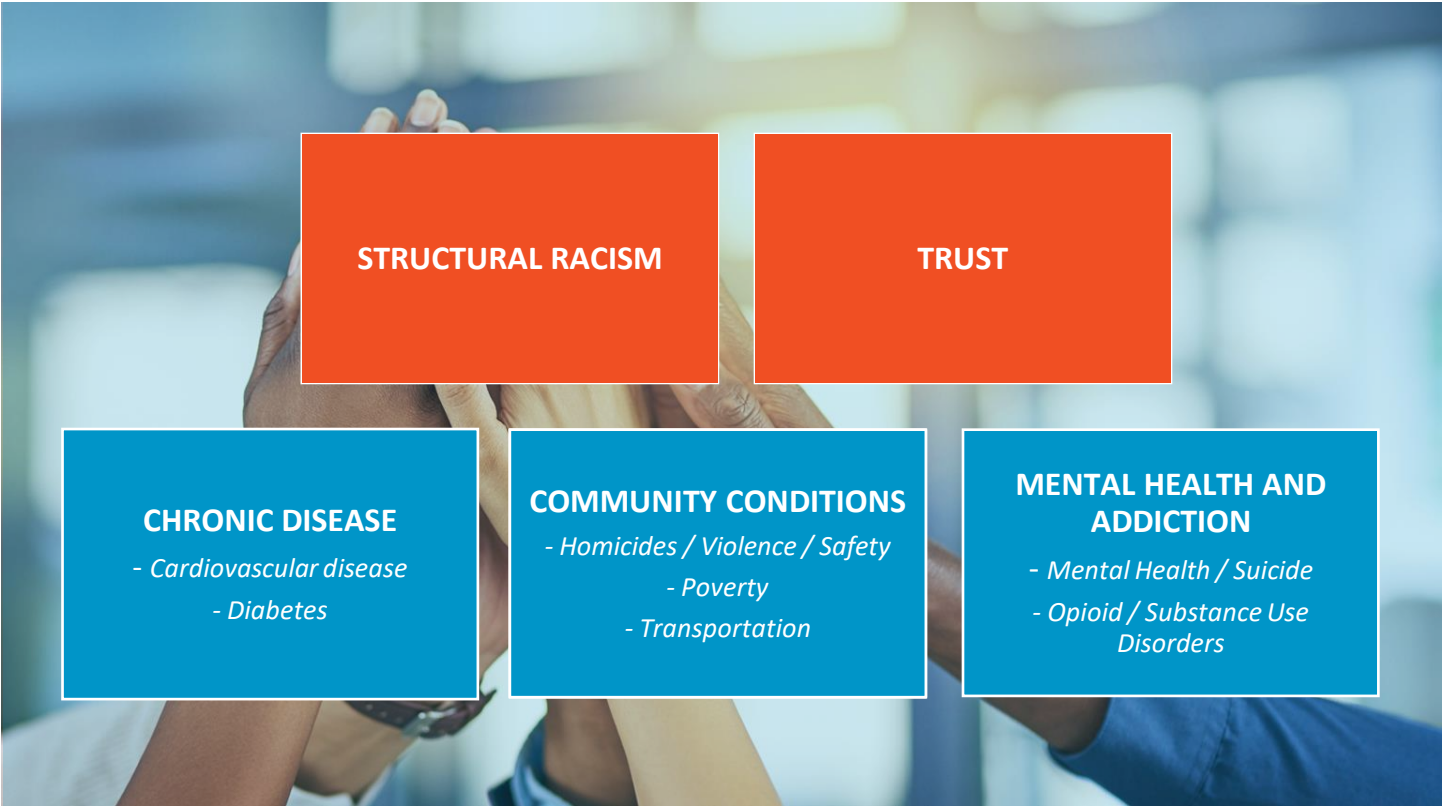
HIP-Cuyahoga's mission is to inspire, influence, and advance policy, environmental, and lifestyle changes that foster health and wellness for everyone who lives, works, learns, and plays in Cuyahoga County.


CORE VALUE

Building opportunities for everyone in Cuyahoga County to be healthy.



2019 COLLABORATIVE COMMUNITY HEALTH ASSESSMENT PRIORITIES





ELIMINATE STRUCTURAL RACISM (ESR)

- Organizational Readiness Assessments
- Social Network Analysis
- REI Trainings

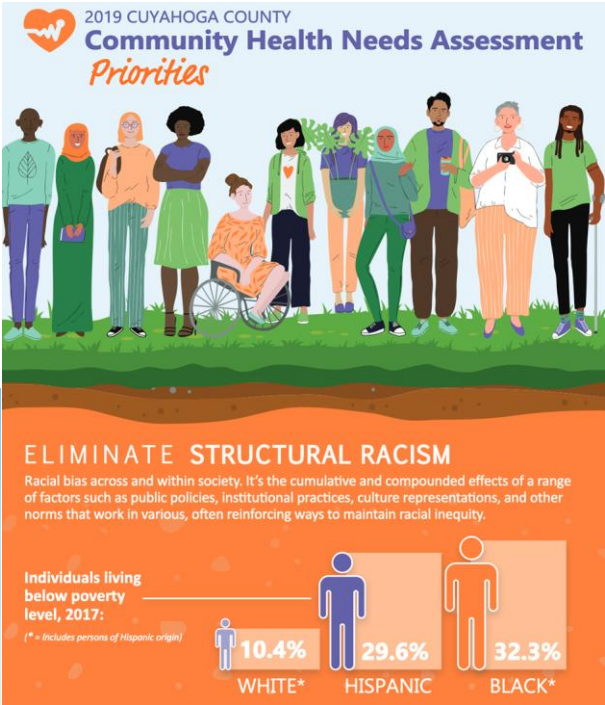
RACIAL EQUITY & INCLUSION

GROWING RACIAL EQUITY IN NORTHEAST OHIO: CONTINUED AWARENESS & ACTION

[Click here to jump to full REI training schedule](#)

Groundwater and Phase 1 Workshops presented by the [Racial Equity Institute](#)

Cleveland Neighborhood Progress is thrilled to partner with [ThirdSpace Action Lab](#) to offer a third year of awareness and action. Throughout the Year of Awareness Building, more than 3,000 concerned citizens from across the region have participated in either the half-day Groundwater Training, or the two-day Phase I Workshop presented by the Racial Equity Institute. These intensive introductions to historical, institutional and systemic racism challenge deeply-held assumptions, and reveal—with sobering clarity—the devastating impacts of persistent racial inequality on our nation’s most marginalized populations.



Racism as Public Health Crisis

News

Cuyahoga County declares racism a public health crisis

Updated Jul 07, 2020; Posted Jul 07, 2020



Ohio lawmakers introduce legislation to declare racism a public health crisis

Senate Concurrent Resolution 14 had its first hearing Tuesday. More hearings are planned next week.



Cleveland City Council declares racism a public health crisis, launching community-wide effort to tackle inequities

Posted Jun 03, 2020



Cleveland City Council voted Wednesday to declare racism as a public health

Advertisement

Microsoft 365

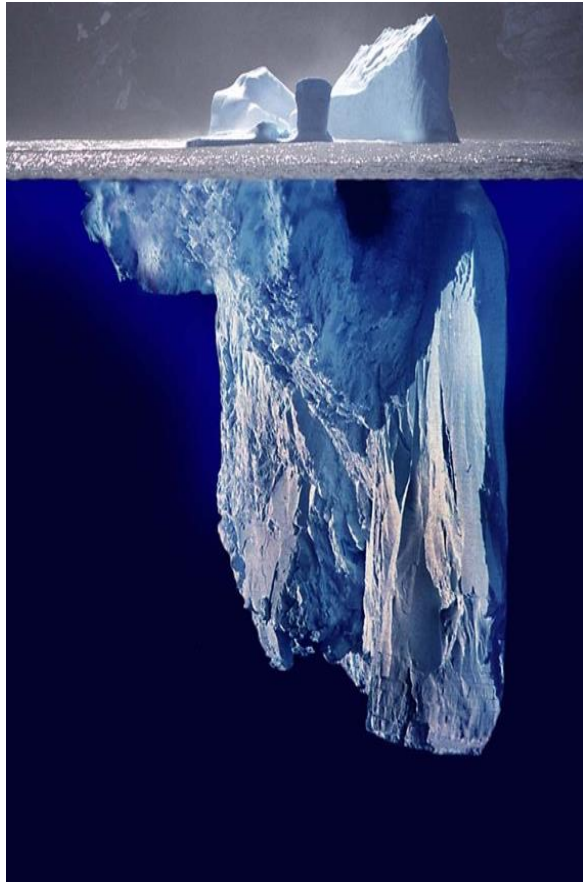
Easy remote working

Collaborate from anywhere with Microsoft Teams, plus 1 TB of cloud storage per user with Microsoft 365

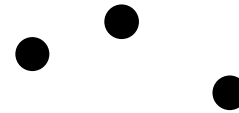


BUY NOW →

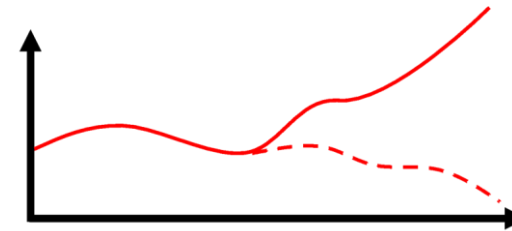
System thinking and iceberg metaphor



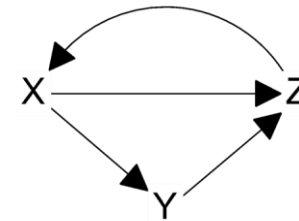
Events



Patterns over time

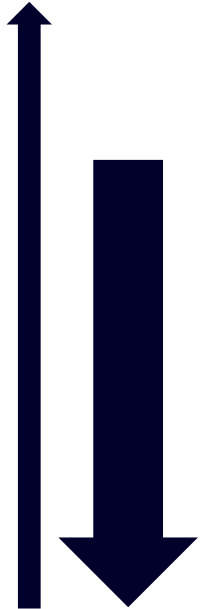


Structure

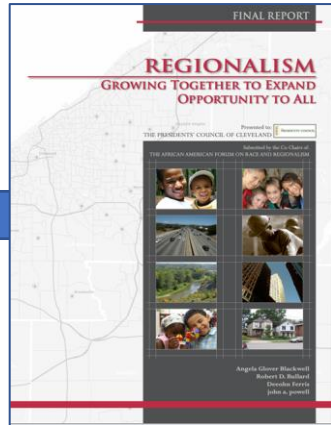


Values, attitudes,
norms, and
metaphors (mental
models)

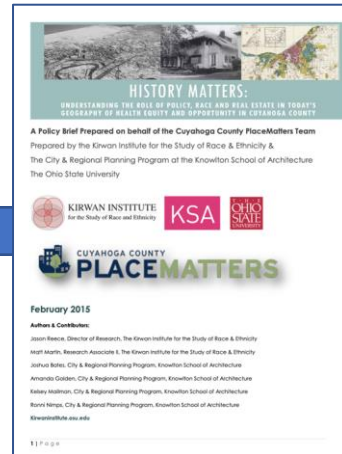
E.g., 'family', gender roles,
culture, social needs, aspirations ...



Systems mapping timeline of data sources



2007



2015



2020

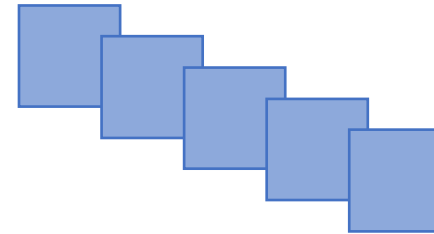


Systems mapping timeline of data sources

Phase I GMB with Core Modeling Team (CMT)



Phase II GMB with community stakeholder groups



HiP CUYAHOGA
Health Improvement Partnership

SCHOOL OF MEDICINE
CASE WESTERN RESERVE UNIVERSITY

The Health Improvement Partnership-Cuyahoga
Advancing a Culture of Health and Equity in Cuyahoga County
CSII Group Model Building: Phase 1



2020

2021

CSII Core Modeling Team



Greg Brown, PolicyBridge



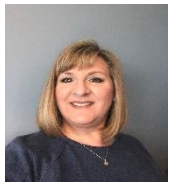
Delores Collins, A Vision of Change



Robin Gotler, Case Western Reserve University



Heidi Gullett, Case Western Reserve University



Martha Halko, Cuyahoga County Board of Health



Peter Hovmand, Case Western Reserve University



Andrea Lyons, United Way



Angela Newman-White, Cuyahoga County Board of Health



Nichelle Shaw, Cuyahoga County Board of Health

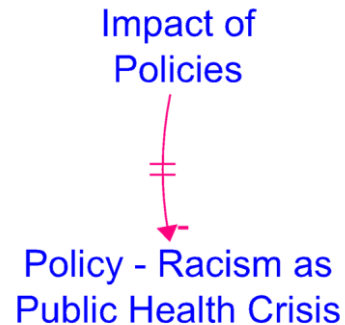


Kurt Stange, Case Western Reserve University



Patricia Terstenyak, Center for Health Affairs

Introduction to system dynamics conventions

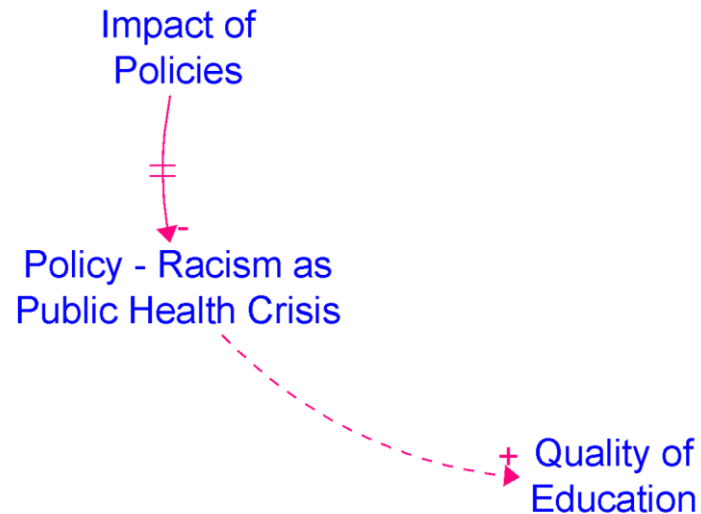


Low impact of policies to address structural racism has led to a policy declaration of racism as a public health crisis.

This is represented by a causal link. The minus sign (-) indicates that it's the low or ineffective policies that lead to an increase in the declarations. Conversely, if the policies were effective and had impact, there would be no need to declare racism a public health crisis.

The double line across the causal link means that there is delay between the cause and the effect.

Introduction to system dynamics conventions

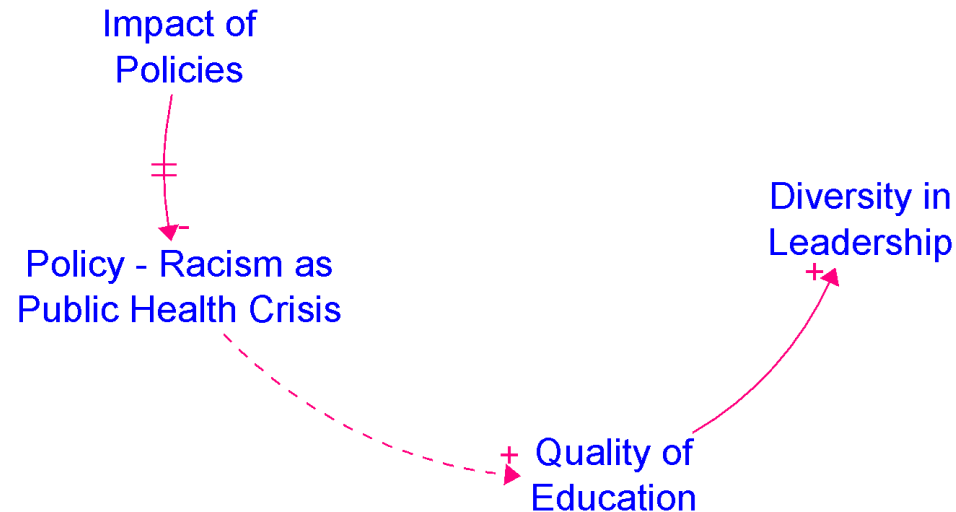


Declaring racism a public health crisis leads to an increase in the quality of education.

This is represented by a causal link with a plus sign (+) because an increase in the policy to declare racism a public health crisis leads to an increase in quality of education. Conversely, a decrease in the police leads to a decrease in the quality of education.

The line is dashed to represent that this link does not yet exist in the real system. It's there to represent one possible consequence of recognizing racism as a public health crisis.

Introduction to system dynamics conventions



Improving the quality of education leads to more diversity in leadership.

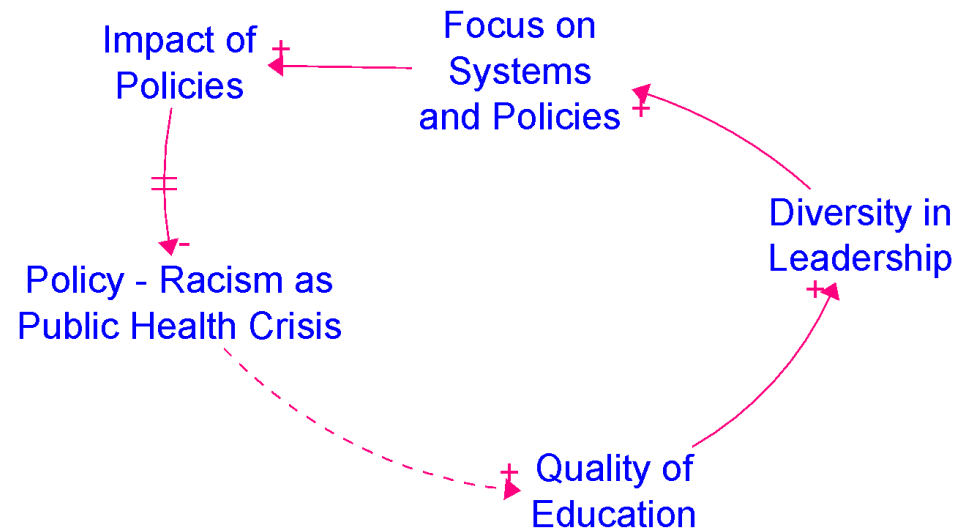
This is represented as a causal link with positive sign.

Note that the sign is not inherently good or bad; the sign just indicates whether the effects from a causal variable move in the same or opposite directions.

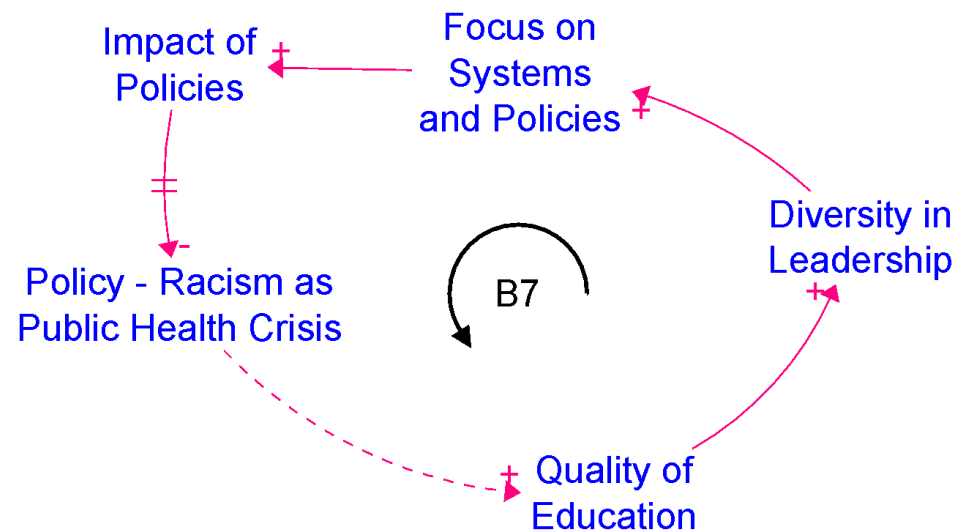
For example, this same link also implies that a decrease in the quality of education will lead to less diversity in leadership.

Introduction to system dynamics conventions

Increasing the diversity of leadership leads to a great focus on systems and policies, which in turn “feeds back” to increase the impact on policies.



Introduction to system dynamics conventions

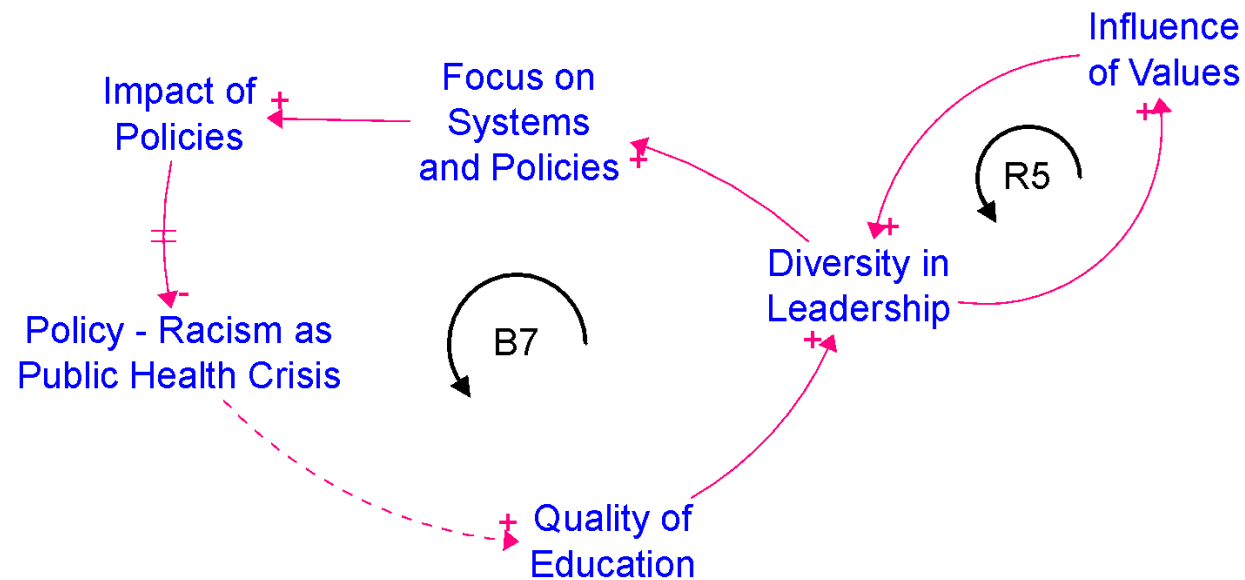


This forms a *balancing feedback loop* because an initial *decrease* in the impact of policies will lead to an increase in policy declaring racism as a public health crisis (after some delay), which will lead to an increase in the quality of education, increase in diversity of leadership, and increase in focus on systems and policies, which will result in an *increase* in the impact of policies.

It's a *balancing* feedback loop because the result was in the *opposite* direction of the initial change.

Balancing loops are labeled with a 'B' prefix inside an arc.

Introduction to system dynamics conventions



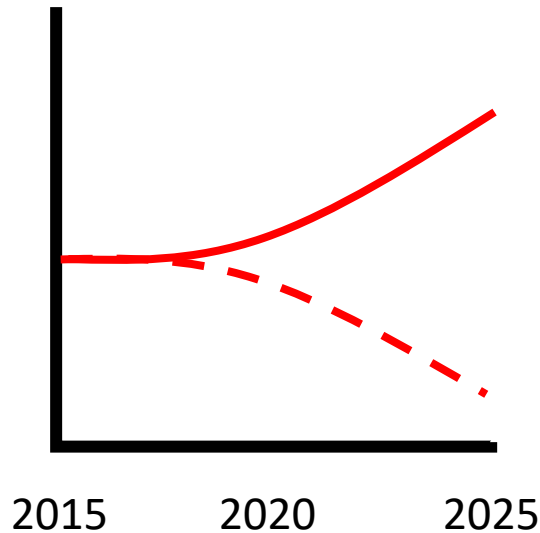
Diversity in leadership also increases the influence of values. And, the influence of values increases the diversity of leadership.

This forms a *reinforcing feedback loop* because an initial *increase* in the diversity of leadership leads to an increase in the influence of values, which in turn "feeds back" to *increase* the diversity in leadership.

It's a *reinforcing* feedback loop because the result of the initial change *reinforces* direction as the initial increase. Reinforcing feedback loops are labeled with a 'R' prefix inside an arc.

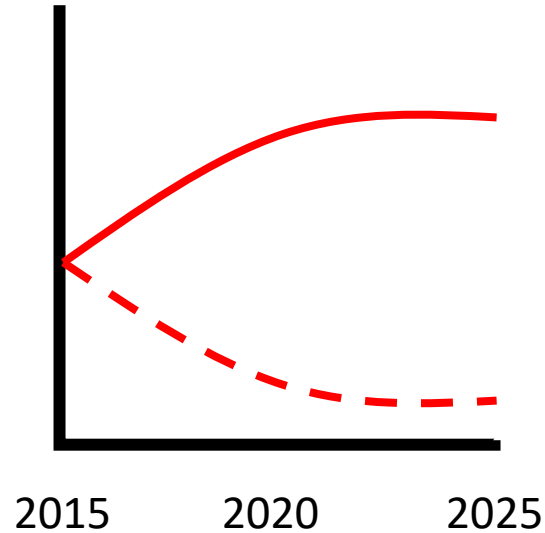
Introduction to system dynamics conventions

Impact of
Policies



Exponential
behavior associated
with reinforcing
loops

Impact of
Policies



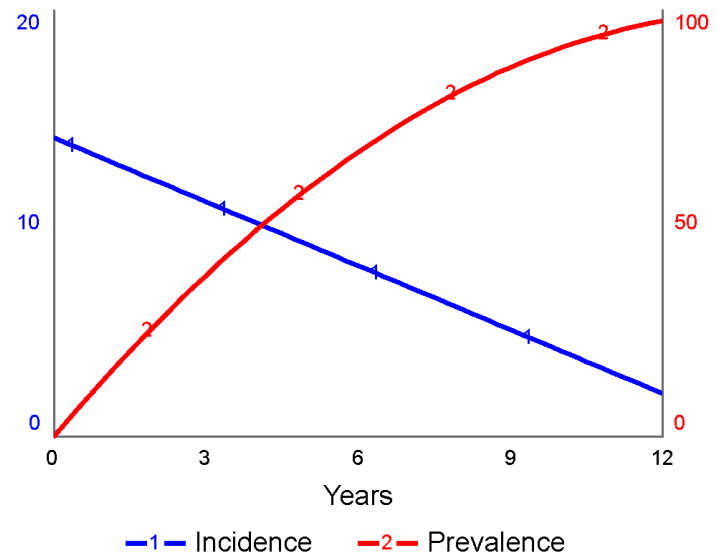
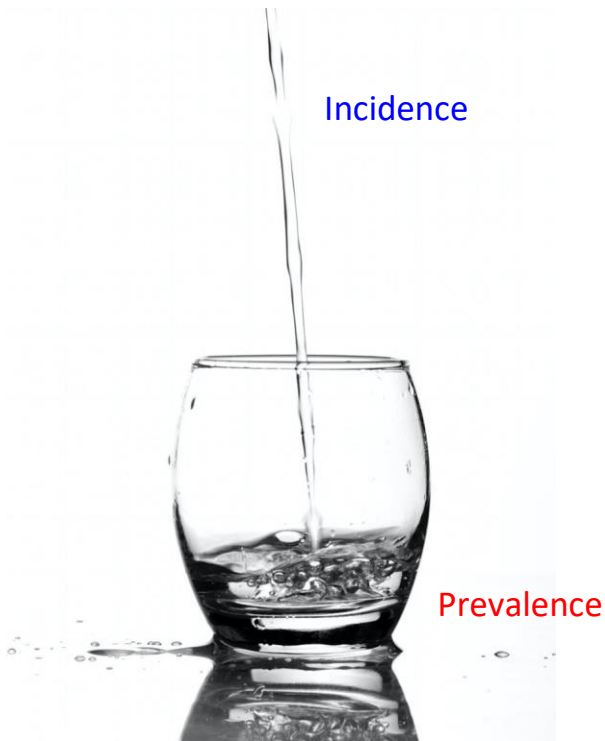
Goal seeking
behavior associated
with balancing
loops

The behavior over time of any variable is determined by whether the system is driven by balancing or reinforcing loops.

Reinforcing loops generate exponential growth and decline. Balancing loops generate goal seeking growth and decline.

Note that balancing and reinforcing loops are not inherently good or bad. Whether they are good or bad depends on the context and what people see as the desired behavior of a system.

Introduction to system dynamics conventions

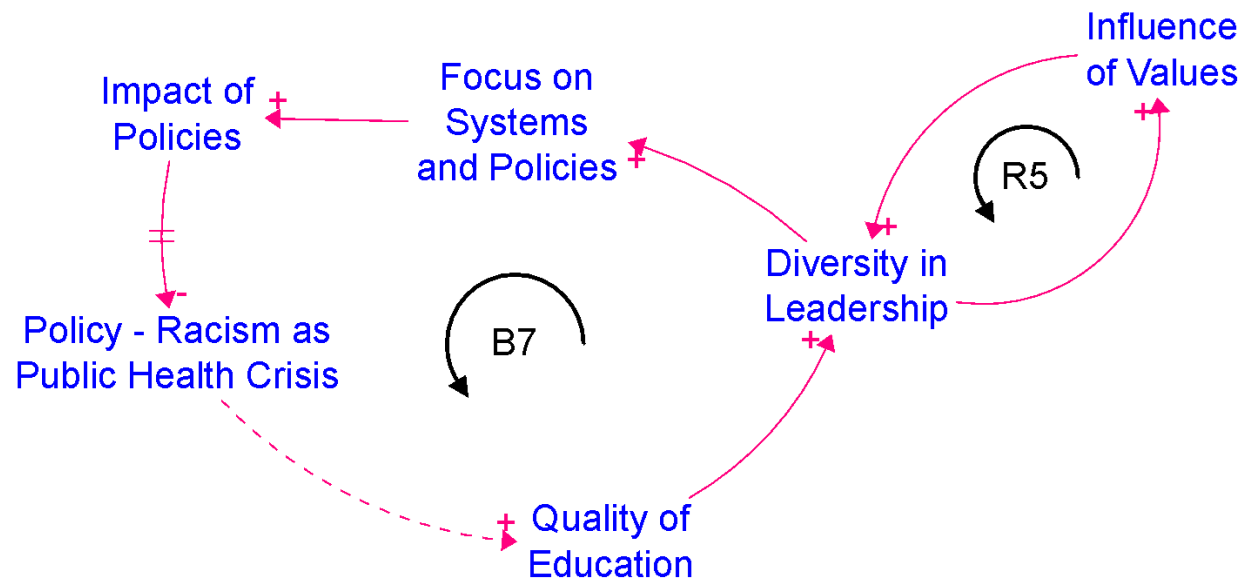


Delays in a system are represented by accumulations. The behavior of accumulations is often counterintuitive.

Consider the relation between incidence (a rate or flow) and prevalence (an accumulation or stock). The incidence rate can be **decreasing** while the prevalence **continues to climb**.

It's counterintuitive because we tend to think in terms of associations where one might expect a decrease in incidence to be associated with a decrease in prevalence. However, prevalence doesn't begin to decrease until the incidence rate < recovery rate.

Example with legend



Legend

Impact of Policies → Policy - Racism as Public Health Crisis

Quality of Education → + Diversity in Leadership

Impact of Policies || Policy - Racism as Public Health Crisis

Policy - Racism as Public Health Crisis - - - + Quality of Education

Label for a balancing feedback mechanism or loop typically associated with goal seeking growth and decline

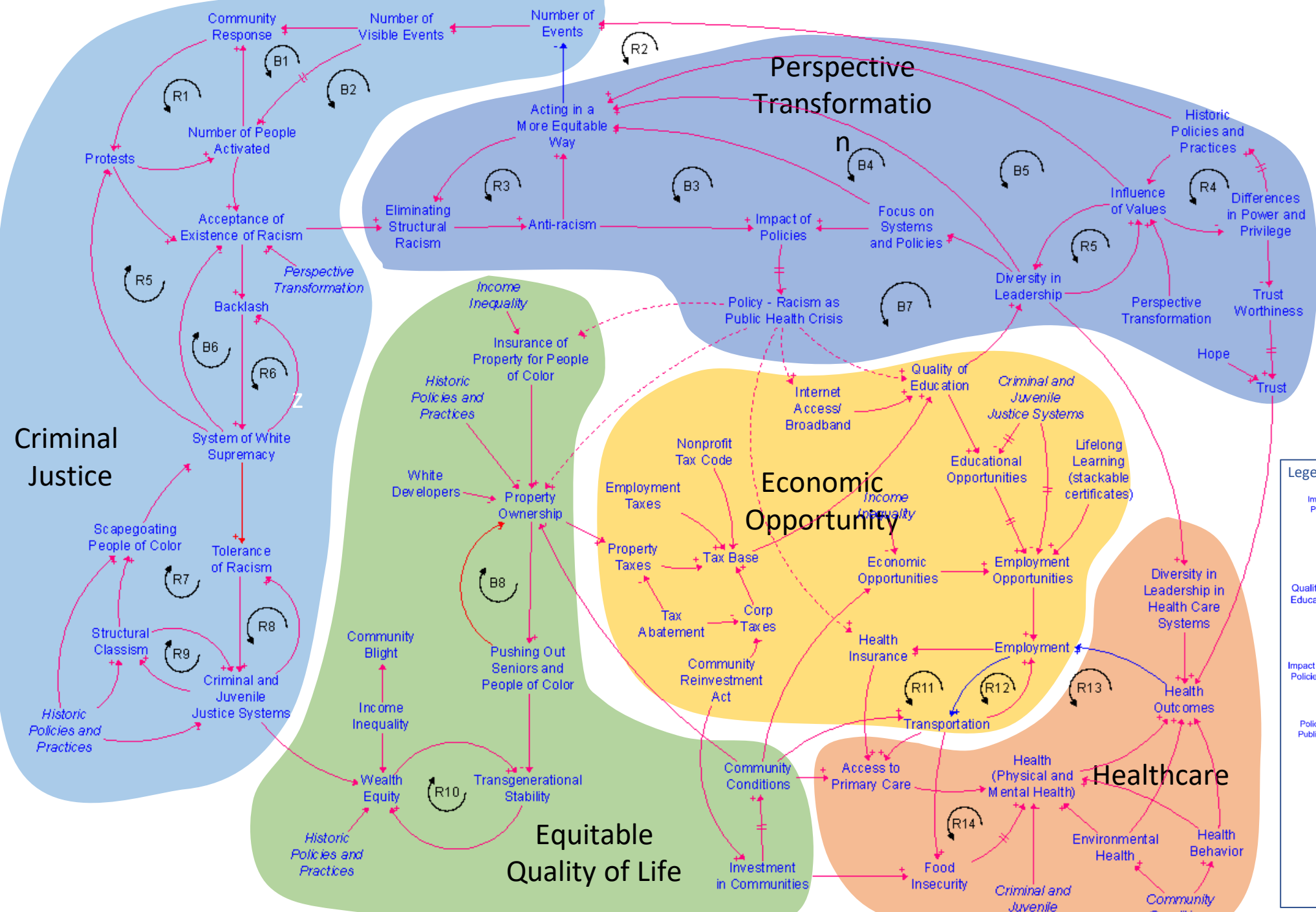
Label for a reinforcing feedback mechanism or loop typically associated with exponential growth or decline.

Causal link between two variables where the + sign indicates that increasing the cause *increases* the effect, AND decreasing the cause *decreases* effect

Causal link between two variables where the - sign indicates that increasing the cause *decreases* the effect, AND decreasing the cause *increases* effect

Double line across a causal link represents a delay between causes and effects

Dashed line represents a causal link that is not yet established



Legend

- Impact of Policies → Policy - Racism as Public Health Crisis: Causal link between two variables where the + sign indicates that increasing the cause *increases* the effect, AND decreasing the cause *decreases* effect.
- Quality of Education → Diversity in Leadership: Causal link between two variables where the - sign indicates that increasing the cause *decreases* the effect, AND decreasing the cause *increases* effect.
- Impact of Policies ||| Policy - Racism as Public Health Crisis: Double line across a causal link represents a delay between causes and effects.
- Policy - Racism as Public Health Crisis - - - Quality of Education: Dashed line represents a causal link that is not yet established.
- B7: Label for a balancing feedback mechanism or loop typically associated with goal seeking growth and decline.
- R5: Label for a reinforcing feedback mechanism or loop typically associated with exponential growth or decline.