

FINDING BALANCE IN THE SYSTEM FOR NATURE-BASED HEALTH INTERVENTIONS

→ PAPREN Parks and Green Space Presentation



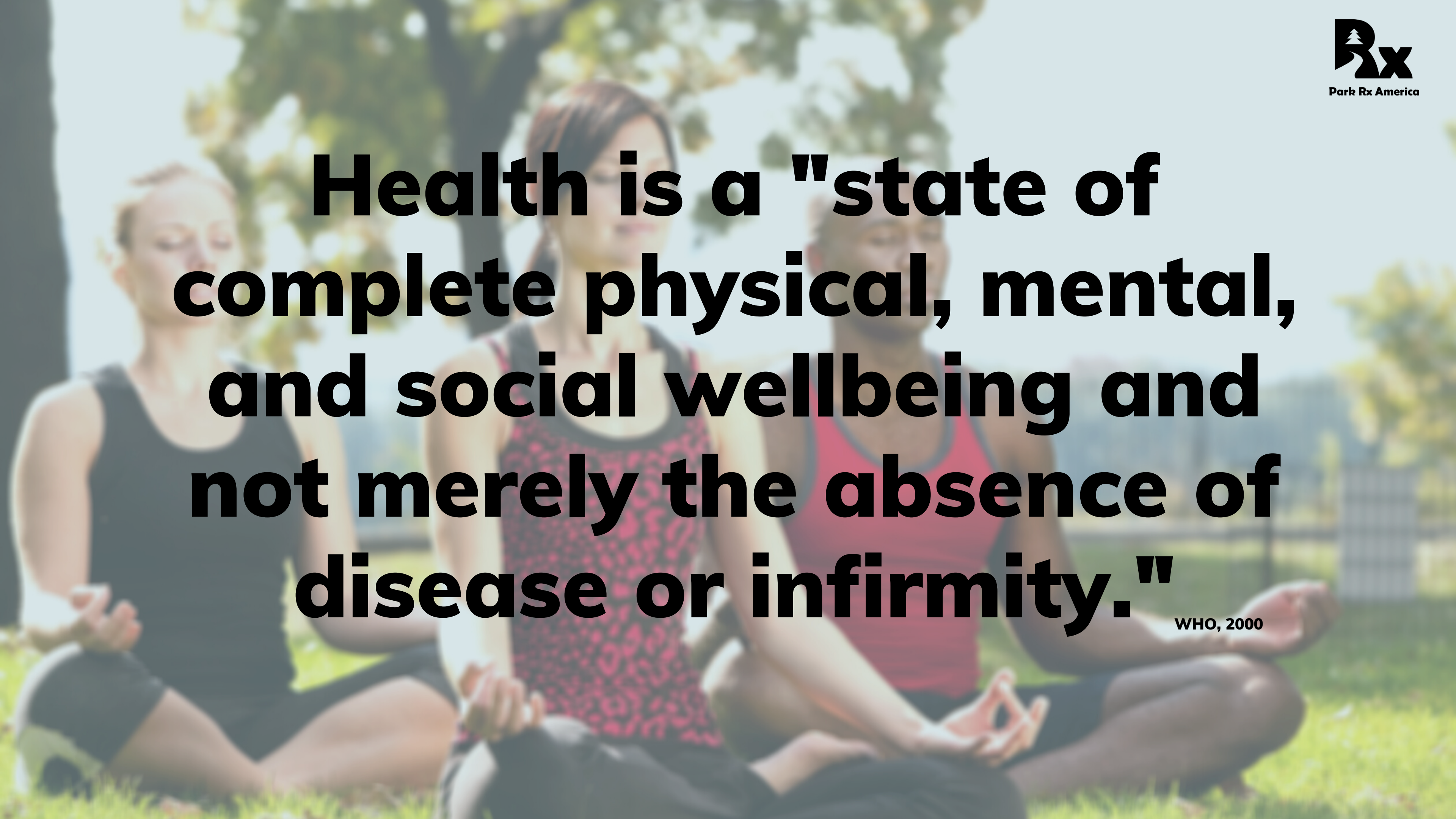
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Health is a "state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity."

WHO, 2000

WICKED PROBLEM

noun | 'wikid | praa-bluhm

A problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize.

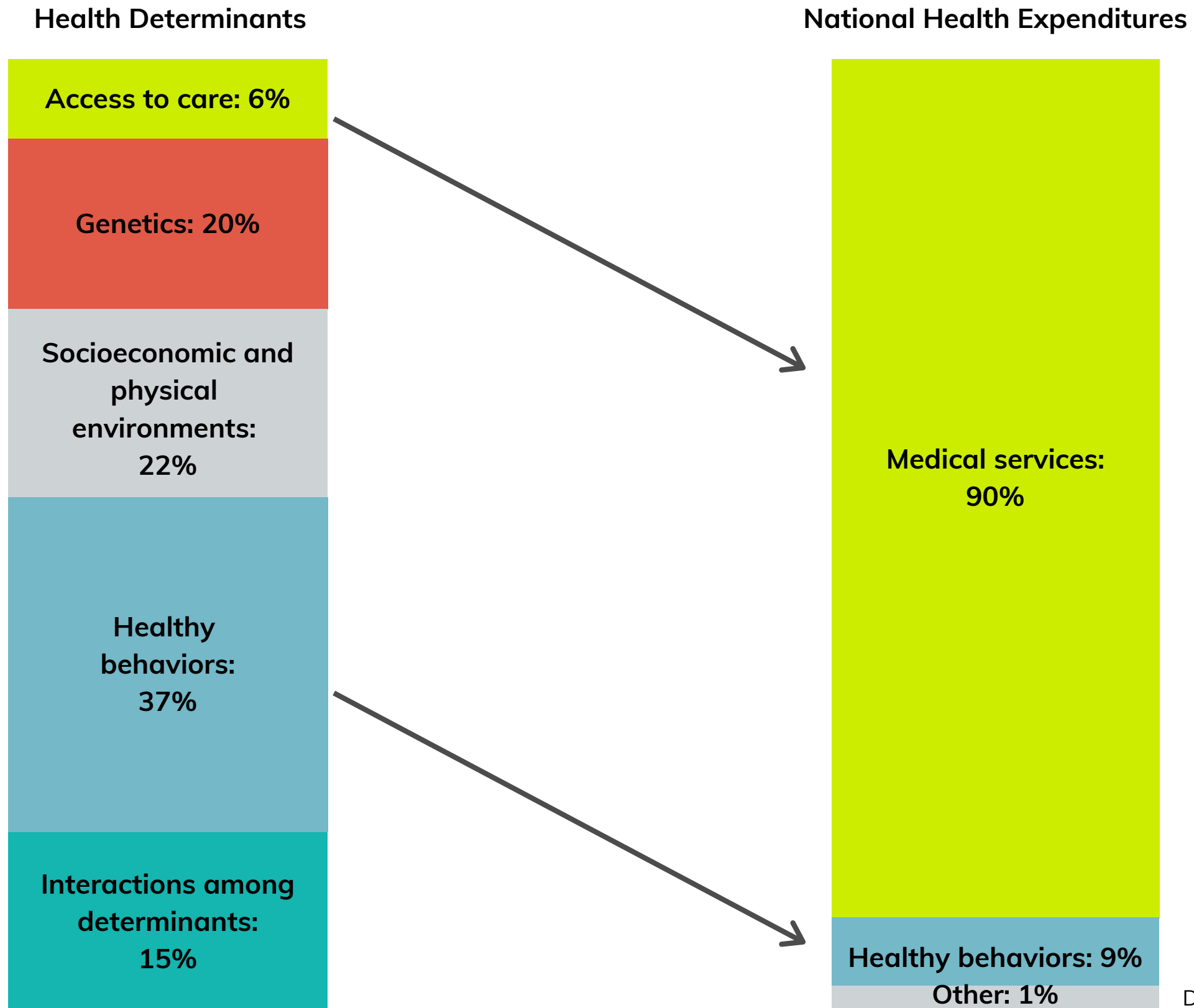
Rittel & Webber, 1973



**90% OF THE NATION'S
\$3.3 TRILLION SPENT ON
ANNUAL HEALTH CARE
IS FOR CHRONIC AND
MENTAL HEALTH
TREATMENT**

CDC, 2018

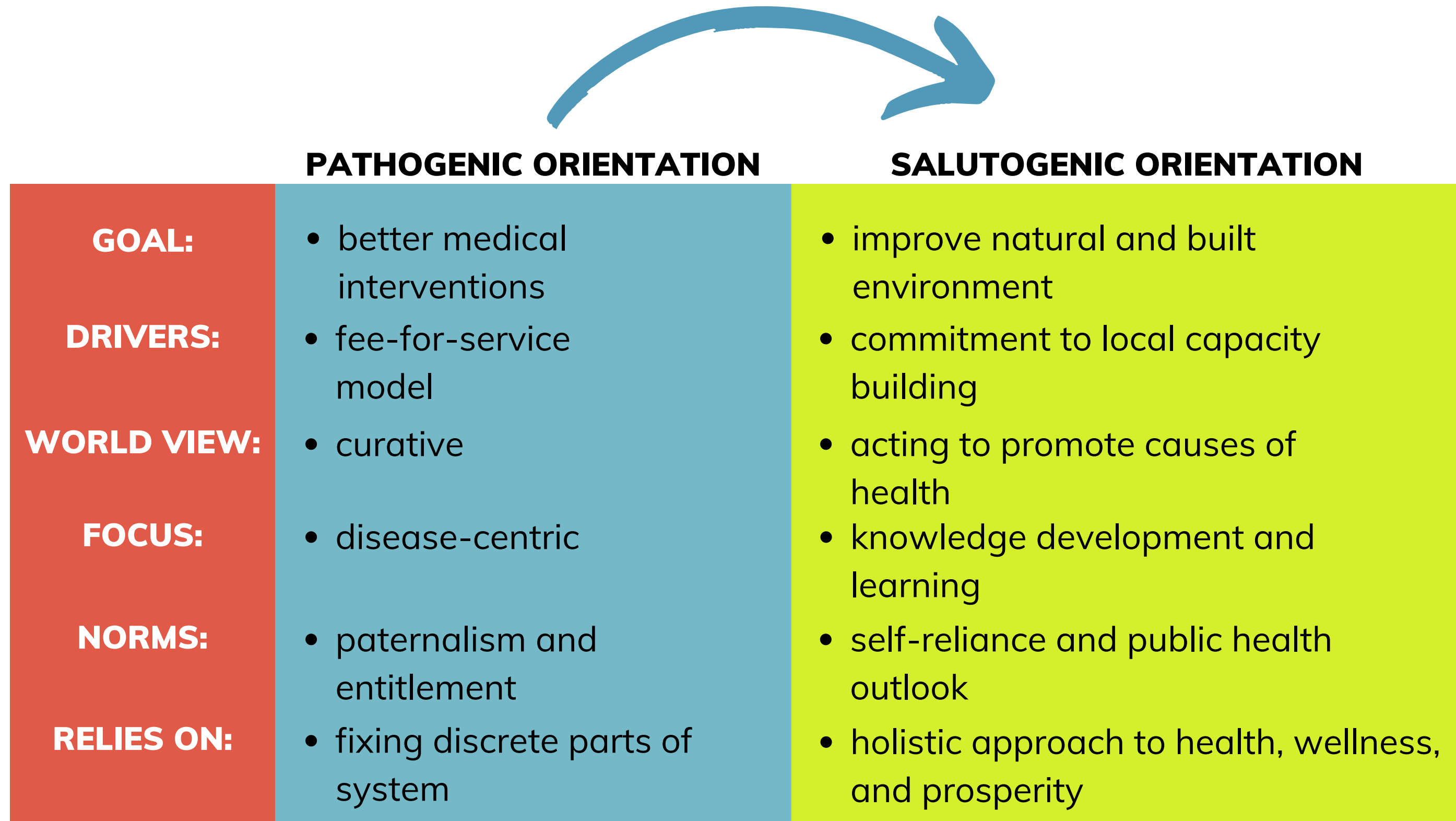
A Legacy of Spending Mismatches




Data from NEHI 2013

**59% of an individual's
health determinants could
be positively influenced by
nature-based health
interventions**

SALUTOGENESIS AND HEALTH

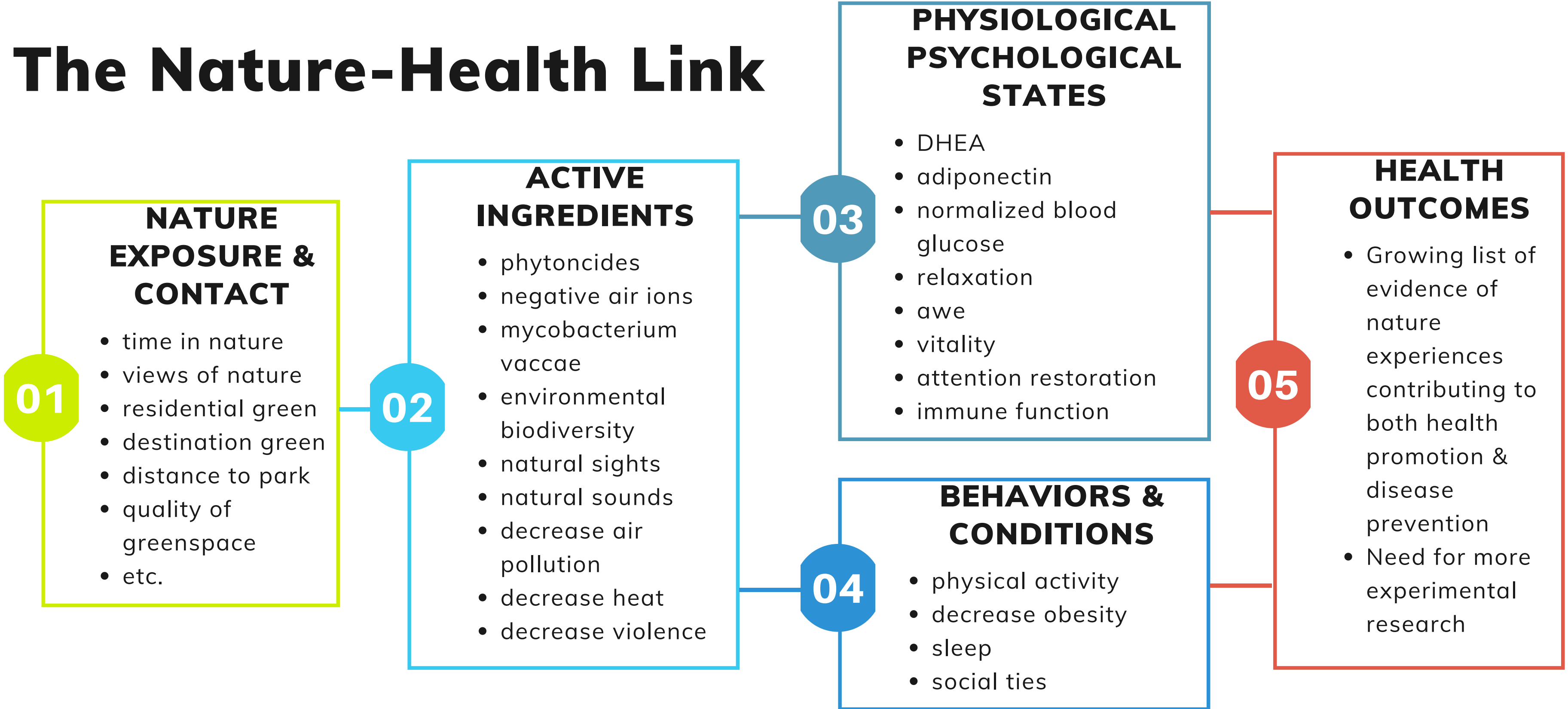


A background image showing a person in a light blue shirt hugging a large tree trunk, with green foliage and a blue sky in the background.

**Health depends on our ability
to understand and manage the
interaction between human
activities and the physical and
biological environment.**

WHO, 1992

The Nature-Health Link





Park Rx America

Nonprofit connecting communities to nature through personal goals (e.g. prescriptions)

Mission is to decrease the burden of chronic disease, increase health and happiness, and foster environmental stewardship by virtue of prescribing nature during the routine delivery of healthcare by a diverse group of health care professionals.

What is Nature Rx?

Intentionally linking public lands and park programs to the medical community.

The use of natural areas such as parks, green spaces, or blue spaces to improve health and wellness among individuals through a formal prescription, or referral, by a healthcare provider.



Health and Nature Program Continuum

Public land focused programming can creatively repackage existing efforts

Healthcare-centric programs can use prescriptions, referrals, or even be provider led

Outdoor Recreation

Health Behavior

Community led programming directly engages community members with nature through plug-and-play options to bespoke approaches

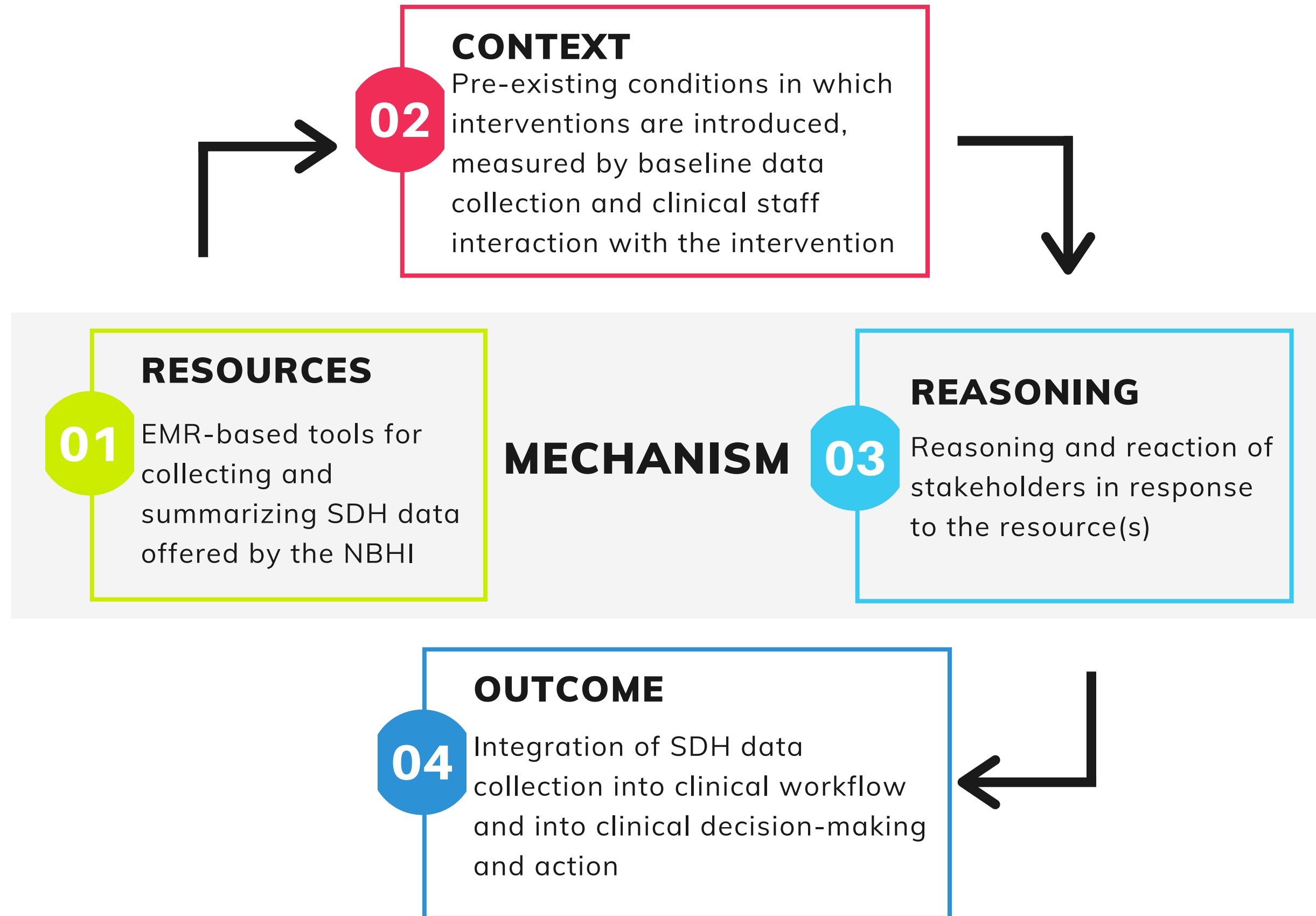


Ecosystem Approach to Healthcare Utilizing NBHI



Current Projects and Research





Evaluation Model for Factors Influencing NBHI Impacts within Clinical Settings

Based on Gold et al., 2019



Schools and Youth

The Exercise Outdoors! Program

DC Public & Public Charter School 2 Year Project



Engaging Schools



Enrolled 5 schools
and 28 teachers
into the study



Trained educators
to create
personalized park
prescriptions for
students



Monitored the
program; interviewed
staff and created
additional solutions
to classroom
integration

EXERCISE OUTDOORS!™

A curriculum with student activities that is ideal for middle school aged youth.

The "Exercise Outdoors!" curriculum is designed to teach youth about the health benefits of nature and to support their development of nature-based physical activity behaviors.



Middle School Curriculum

The Exercise Outdoors! curriculum is designed to teach middle school aged (6th-8th grade) students about the health benefits of nature and to support their development of nature-based physical activity behaviors.





Healthcare Providers

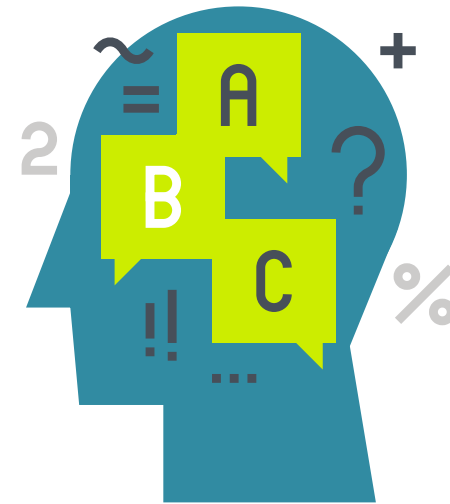
Addressing knowledge and awareness gaps through Continuing Medical Education/Continuing Education (CME/CE) credits



Why aren't more healthcare providers writing nature prescriptions?



What are the barriers?



What education is needed?



How do we provide a solution?



NIH R01 Randomized Control Trial

- Large-scale RCT on Park Prescriptions among low-income children
- 5 year collaborative with Unity, RAND, and Park Rx America
- Ages 6 to 16 yrs

Development of CME

- Funded by USFS
- 1.0 AMA PRA Category 1 Credit through the American Public Health Association
- Enduring self-paced online educational activity



Employee Wellness Intervention in Salt Lake City, Utah

01

Year 1

Registered n=525
Completed n=335

- 84% reported being likely or very likely to continue completing their Park Rx
- 93% improved mood
- 84% decreased stress

02

Follow Up

Survey to all
Year 1 participants

03

Year 2

Launch in May
2021

04

Longitudinal Study

What is the impact of COVID?
What are the long-term health behavior impacts?

“During COVID, being outside has been my lifeline. My greatest motivator was knowing that I'd be able to spend time with loved ones I wouldn't be able to visit inside. I'm outside a lot already but the program pushed me to be outside even more.” Participant Quote



RANGER
STATION



Land Managers

Forest Therapy Trails Guidelines for
Design and Management Study



**What should be
considered when
designing, developing,
or designating and
managing a forest
therapy trail?**



Study Methods

01

Scoping Literature Review

Review of literature to identify key natural, built, and social attributes of forest settings, trails, and other natural and designated outdoor environments relevant to forest therapy experiences.

02

Interviews with Forest Therapy Guides

Structured phone interviews with 13 ANFT certified guides.

03

Expert Review & Dissemination

Provide feedback on the report and final edits before releasing the final report.



HIPAA

Finding the tipping point
from leisure behavior to
health behavior intervention



Questions?



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