

# Using storytelling to translate science for health promotion, disease prevention

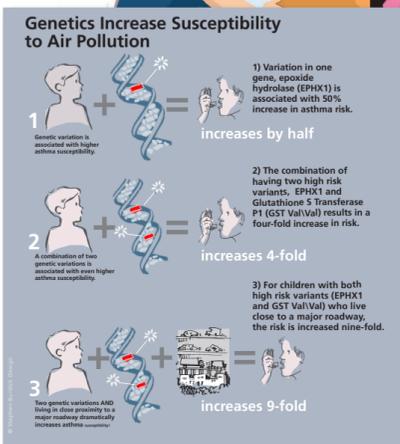
## The Power of Personal Stories:

Cased-based learning has long been used in medical education. Our eBook grounds the science of health in stories of fictional people, their families, and communities to enable readers to explore the collection of risk factors for increasingly common illnesses that are a serious problem for the health of our nation.

### Examples:

“Brett is a nine year old boy who lives with his mother in an urban area. Like many children, Brett suffers from asthma...”

Gene-environment interactions, such as in this example from the asthma story, can have dramatic effects.



### Stress-environment interactions:

“...For example, prenatal and early life exposure to social stressors, such as violence, can increase the risk of asthma as well as increase the impacts on respiratory health from allergens, air pollution, and tobacco smoke.”

Stress affects our health. Watch this video by Dr. Rosalind Wright to see how social stressors, along with environmental factors, can be linked to asthma. (5 min.)



## Multiple factors influence health

Our individual stories highlight the many ways our health is influenced by the complex environments where we live, eat, work, exercise, gather and socialize.

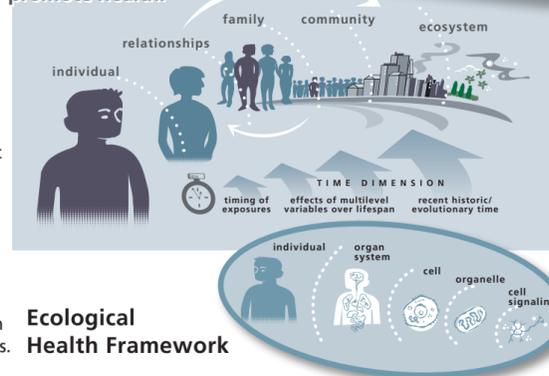


Individuals and families are progressively nested within communities, societies, cultures, and ecosystems. Each of these levels has significant influences on the others.

In many instances, each can influence levels of healthy or harmful biologic markers, such as inflammatory mediators or stress hormones, that can be measured in people's blood.

We call this an ECOLOGICAL FRAMEWORK because it recognizes the contribution of each level to the health status of individuals, families, communities, ecosystems.

### Ecological Health Framework



The ecological health framework also extends to the sub-cellular level.

# A Story of Health

## A Multi-media eBook

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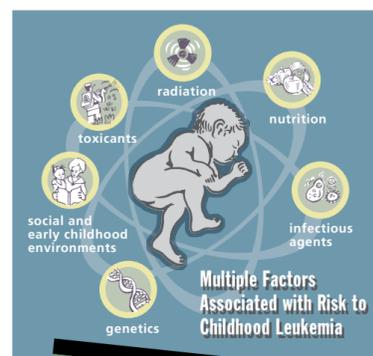
This poster was supported by the American College of Medical Toxicology and funded (in part) by the cooperative agreement from the Agency for Toxic Substances and Disease Registry (ATSDR). It was also made possible by U.S. Environmental Protection Agency (US EPA) grant RD83451101 and National Institute for Environmental Health Sciences (NIEHS) grant P01ES018172 and the California EPA/OEHHA. Its contents are solely the responsibility of the grantee and do not necessarily represent the official views of the US EPA, OEHHA, NIEHS, or ATSDR, nor do they endorse the purchase of any commercial products or services mentioned in the poster.

Using the setting of a family reunion as a backdrop, we explore how multiple environments influence our health across the lifespan.



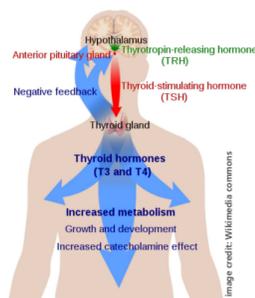
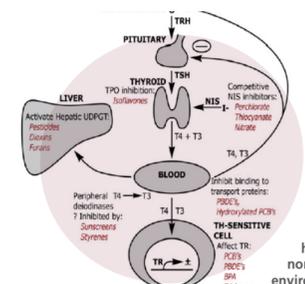
“Stephen is a 3-year-old boy in treatment for childhood leukemia...”

## Early life exposures contribute to lifelong effects



“Amelia is a 13-year-old. Like one in six young people in America, Amelia has a developmental disability...”

### PRENATAL HEALTHY CARE A Rationale for Thyroid Screening Before or During Pregnancy



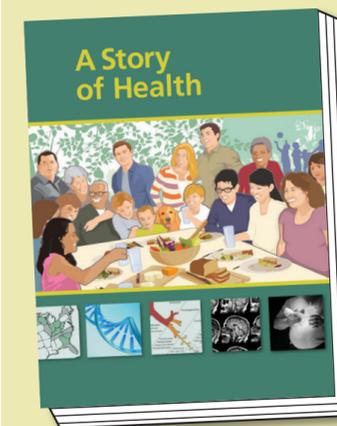
### Thyroid disruption technical diagram

Adequate levels of thyroid hormone are necessary for normal brain development. Some environmental chemicals can disrupt thyroid hormone levels and function through several mechanisms.

Although not an exhaustive account, the eBook is a presentation of current scientific evidence to help readers make informed decisions and take actions to promote health.

## About the eBook:

An interactive document with multiple chapters features prompts for embedded information and links to online resources.



Finally, a resource that clearly explains the multiple factors that influence our health across the lifespan – the natural, built, chemical, food, economic, and social environments – and how they interact with genetics and each other.

A Story of Health is the first installment of a new eBook on how to promote health and prevent disease.

Pop-up graphics and rollover functions reveal key concepts, relevant graphics and links to videos presented by researchers – in-depth information for clinicians.

- key concept
- watch a video
- additional resources, tools
- technical details for health professionals
- skip this section
- definition

A Story of Health is written by health experts with content relevant to a wide audience, from clinicians, to health advocates, to policy makers.

The stories are accessible to an educated lay audience with more technical sections for scientists and medical professionals who can access free continuing education credits through the eBook.



Watch: Dr. Mark Miller discusses the Barker hypothesis (1:40 min.)

Our goal: Improve the health of individuals, families, communities and patients.



Download the Story of Health announcement flyer at [www.healthandenvironment.org/resources/story\\_of\\_health](http://www.healthandenvironment.org/resources/story_of_health)

## Acknowledgements

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A Story of Health will be available as an eBook with free Continuing Education credits available for health professionals. For more information contact Maria Valenti, [mvalenti@igc.org](mailto:mvalenti@igc.org) or Brian Tencza, [bht1@cdc.gov](mailto:bht1@cdc.gov).