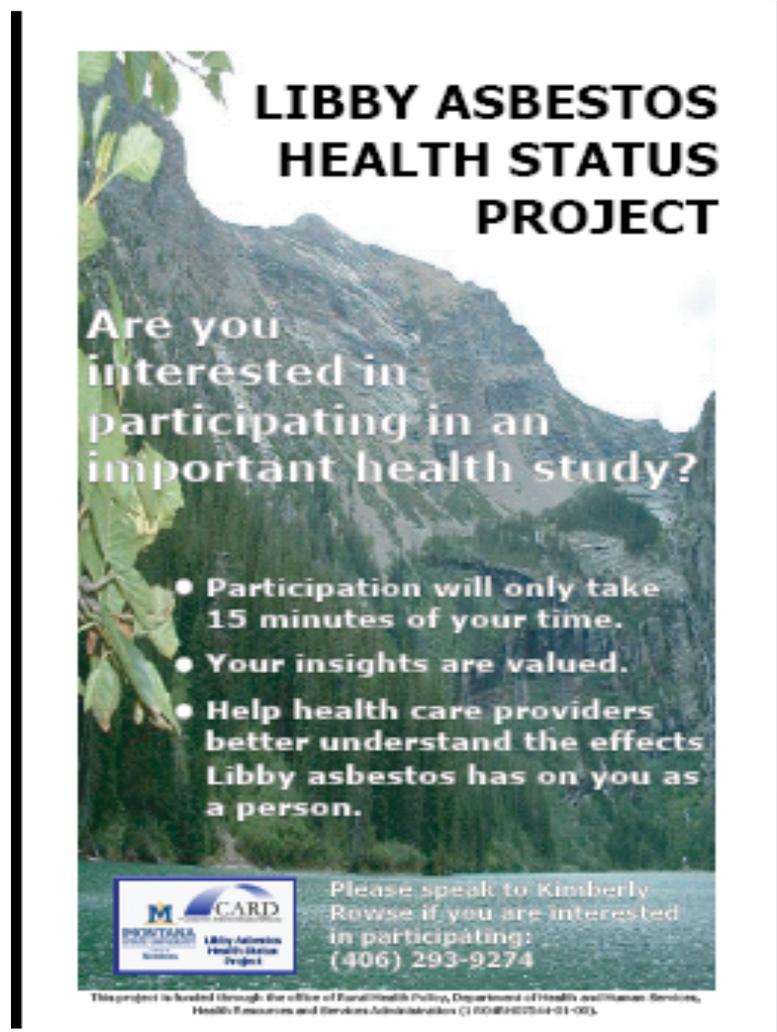


Asbestos-Related Disease (ARD): In Search of Rural Public Health Policy Frameworks to Address a Slow-Motion Environmental Event

Sandra Kuntz, PhD, APRN, BC
American Public Health Association 135th
Annual Meeting and Expo, Washington, DC
November 3-7, 2007

A Community-Academic Partnership



**LIBBY ASBESTOS
HEALTH STATUS
PROJECT**

Are you
interested in
participating in an
important health study?

- Participation will only take 15 minutes of your time.
- Your insights are valued.
- Help health care providers better understand the effects Libby asbestos has on you as a person.

Please speak to Kimberly Rowse if you are interested in participating:
(406) 293-9274

 **MONTANA CARD**
LIBBY ASBESTOS
HEALTH STATUS
PROJECT

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Purpose

Establish a comprehensive understanding of the bio-psychosocial health status and health service needs of persons exposed to Libby asbestos.



Session Objectives

- **Describe the disease trajectory of ARD.**
- **Identify past, present, and future routes of environmental exposure to asbestos.**
- **Examine three public health policy frameworks consistent with the challenges inherent in this slow-motion environmentally-induced chronic illness.**

Background & Significance

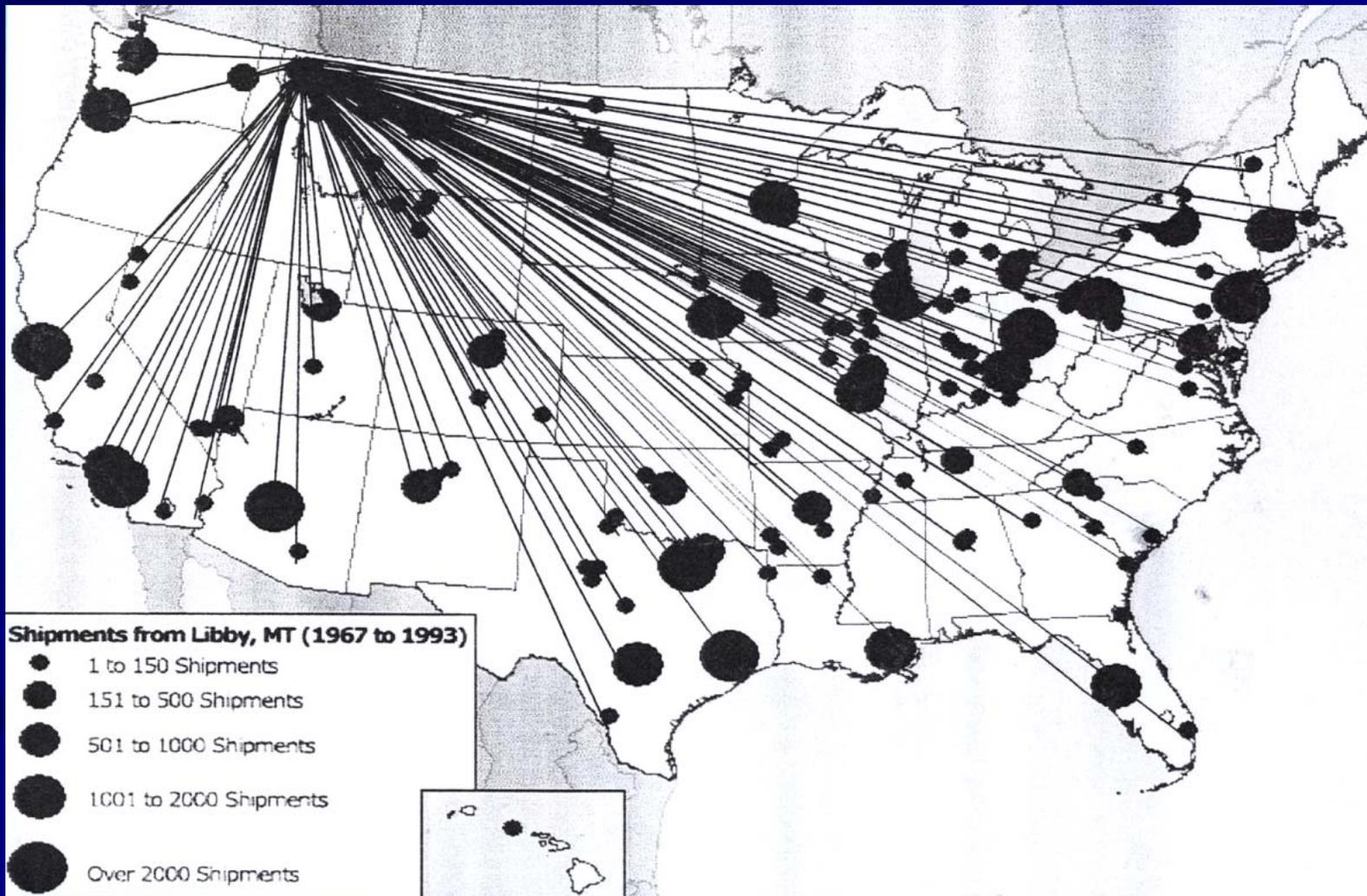
- 1881 Vermiculite discovered in Libby, MT
- 1920-1990 vermiculite mined, processed locally & shipped to 300 processing plants around the country
- Libby vermiculite was used in homes, gardens, public sites in Libby & around the country.
- Product was widely used in building products, insulation, as a soil conditioner, & fire-proofing materials



Zonolite Mountain, Libby, MT

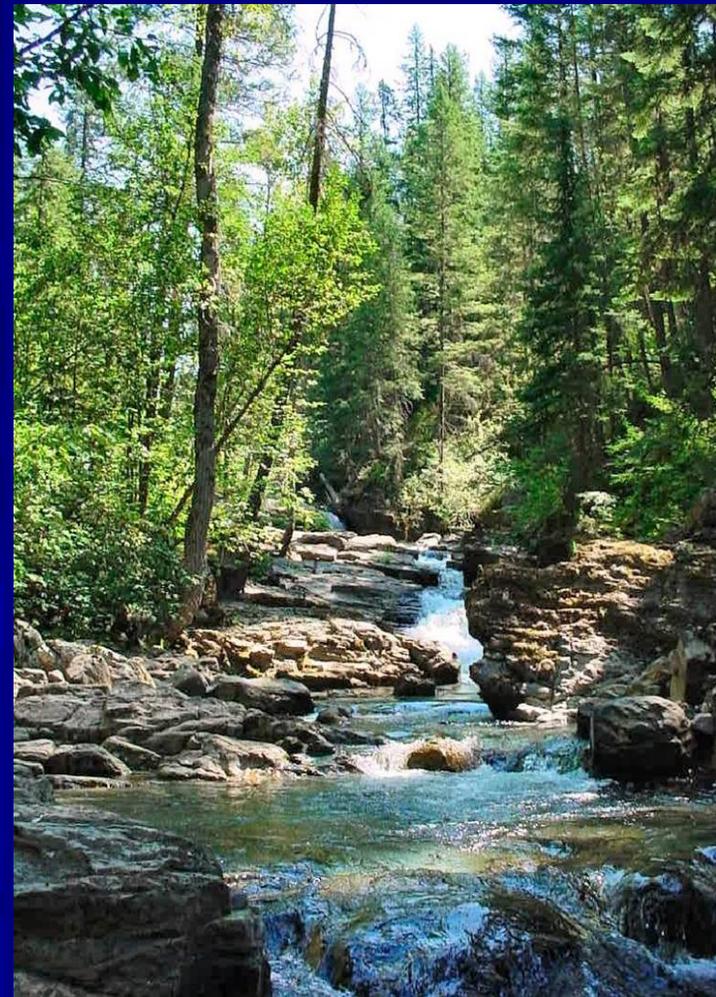
photo credit, ATSDR

Shipments from Libby, MT



Background & Significance

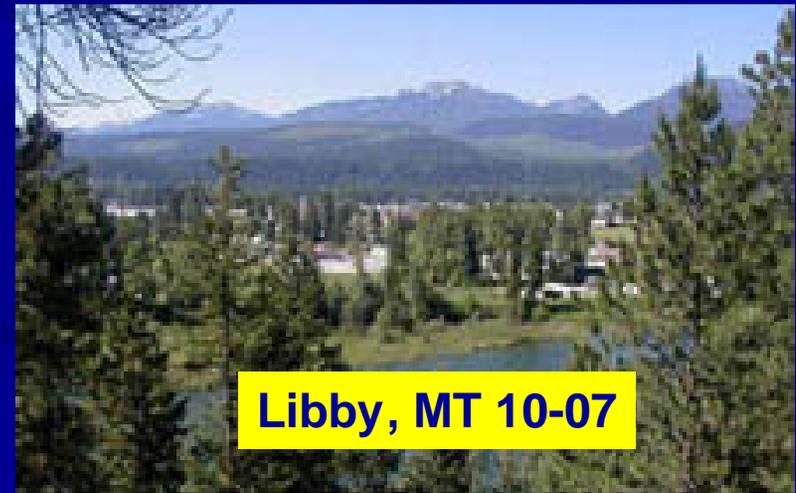
- The Libby mine produced 80% of the world's supply of vermiculite 1920-1990
- Libby vermiculite was contaminated with a particularly toxic form of asbestos
- 1999 EPA Emergency Response Team began sample collection in Libby
- 1999 ATSDR Mortality Review 1979-1998



Background & Significance

- 2000 Center for Asbestos Related Disease (CARD Clinic) established in Libby, MT
 - 1500+ patients from 32 states
 - ARD is complicated by a long disease latency period (exposure to diagnosis)
- 2002 Libby added to EPA's National Priorities List as a superfund site
- 2007 Libby clean-up & restoration continues
- Little known about the overall health status and health care needs of persons exposed and/or living with ARD

Disaster: a sudden & calamitous event (NIMS)



Event Characteristics Compared



Place	Tempo	Type	Pop.	Impact*	PHED**	Resilience
CA	Sudden	Natural+	Urban	11+(P)	Yes	+
KS	Sudden	Natural	Rural	8+(P)	Yes	+++
LA	Sudden	Natural+	Urban	1300+(P)	Yes	-
MT	Emerging	Technological	Rural	270+(P)	No	++

* Loss of Life + Property/Possessions (P)

**Public Health Emergency Declaration—a public health policy issue

Policy Implications:

Failure to Enact a Public Health Emergency Declaration in Libby

- What will happen to the 15-35 million homeowners, businesses, and schools unwarned regarding asbestos-contaminated insulation?
- What amount of exposure to Libby asbestos is a health threat?
- What access to health care issues remain for people sickened by Libby asbestos?

Results

Risk for what has been described as a “patchwork” approach to health care services for those exposed to Libby asbestos and living with ARD.



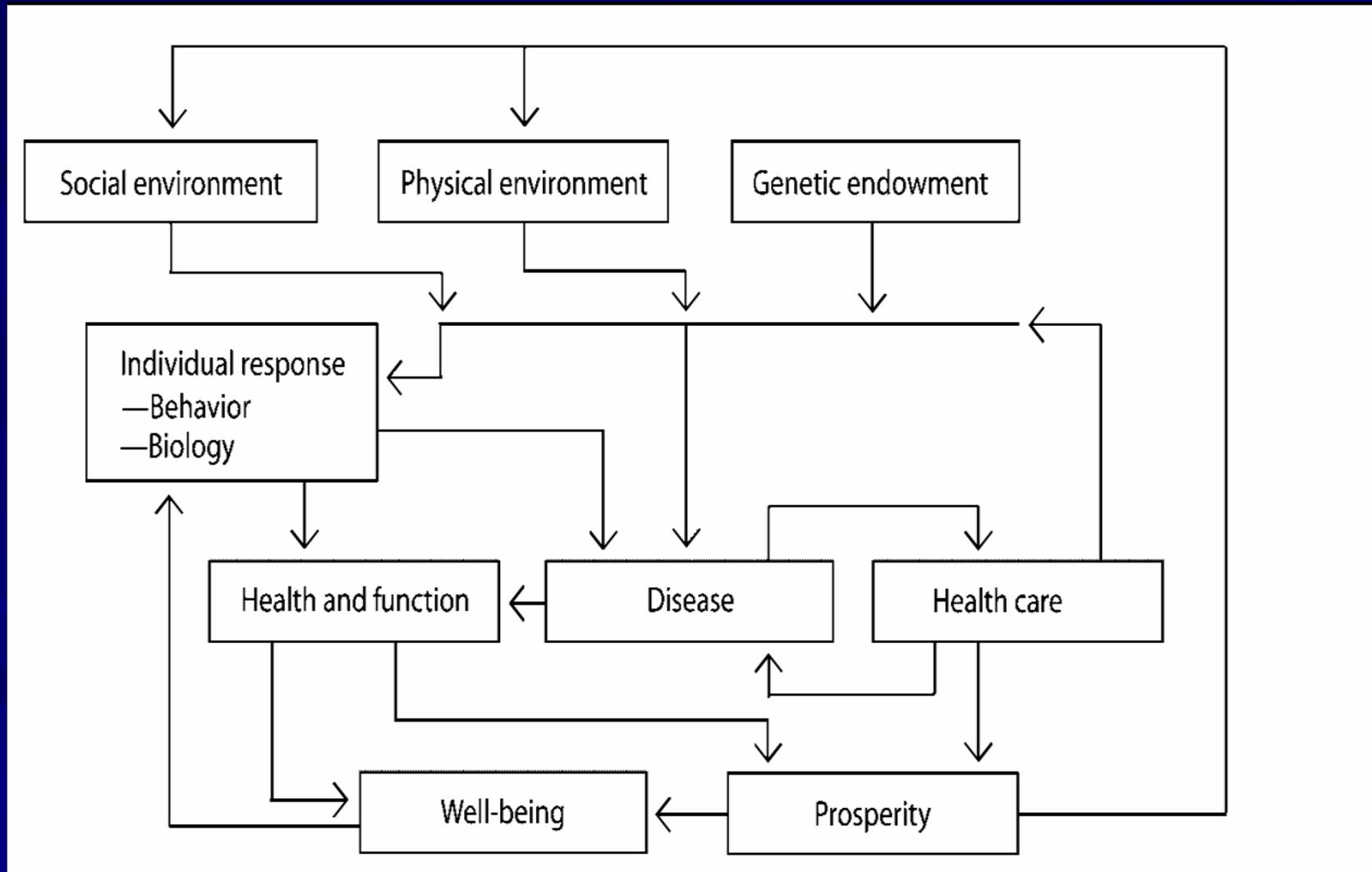
Which policy framework would best support the multi-determinants of asbestos-related exposure/disease & address access to care issues?

- Producing Health, Consuming Health Care (Evans & Stoddart, 1990; 2003)
- Care Across the Continuum Framework (Mueller & McKinney, 2006)
- Multi-Dimensional Model for Community Response to Slow-Motion Technological Disasters (Hernandez, Black, Rowse, & Cline, 2002)

Producing Health, Consuming Health Care (Evans & Stoddart, 1990; 2003)

- Addresses “non-medical” and a broad range of health determinants
- Encourages interdisciplinary communication
- Features:
 - ❖ Influence of psycho-social, economic, cultural, and physical environments
 - ❖ Complex interactions can modify outcomes
 - ❖ Focus on health promotion
- Health outcomes improve when a community organizes to address medical and non-medical health determinants.

Producing Health, Consuming Health Care (Evans & Stoddart, 1990; 2003)

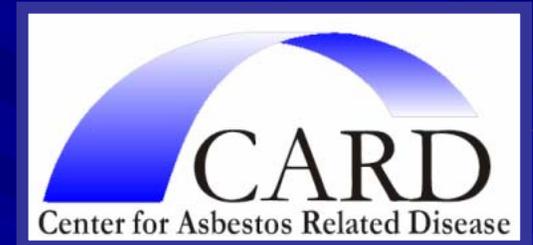


Care Across the Continuum Framework (Mueller & McKinney, 2006)

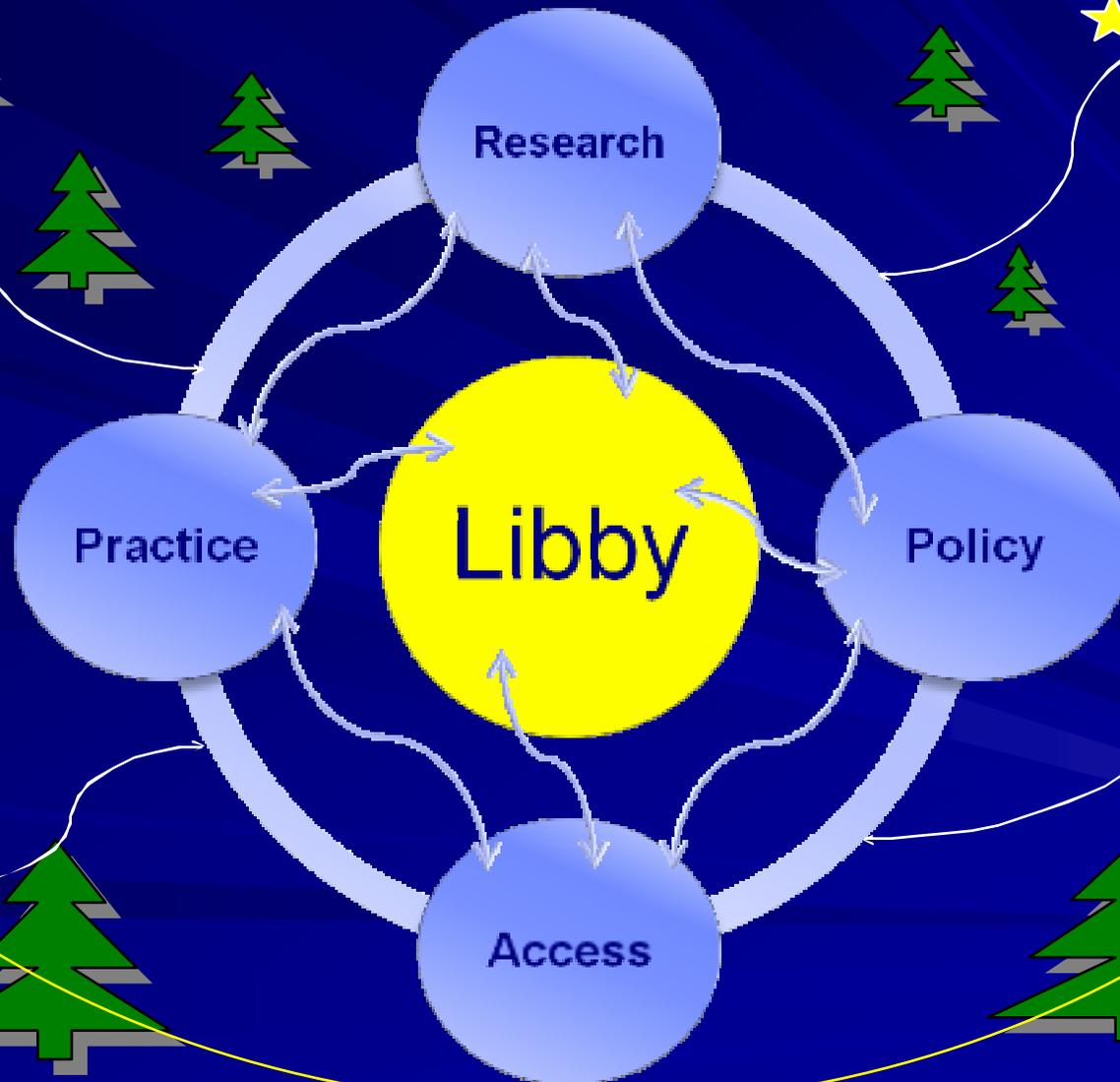
- Based on two IOM reports—Committee on Quality of Health Care in America and Committee on the Future of Primary Health Care
- **Derived five principles to guide health care policy**
 - ❖ **Health of the individual is paramount**
 - ❖ **Health is an individual's capacity to pursue aspirations and happiness, unfettered by disease or disability.**
 - ❖ **All individuals must have comparable opportunities to obtain services needed to ensure good health**
 - ❖ **Local resource capacities to deliver health care services must be considered**
 - ❖ **Public policy should facilitate an individual's understanding and navigation of the continuum of care.**

Multi-Dimensional Model for Community Response to Slow-Motion Technological Disasters (Hernandez, Black, Rowse, & Cline, 2002)

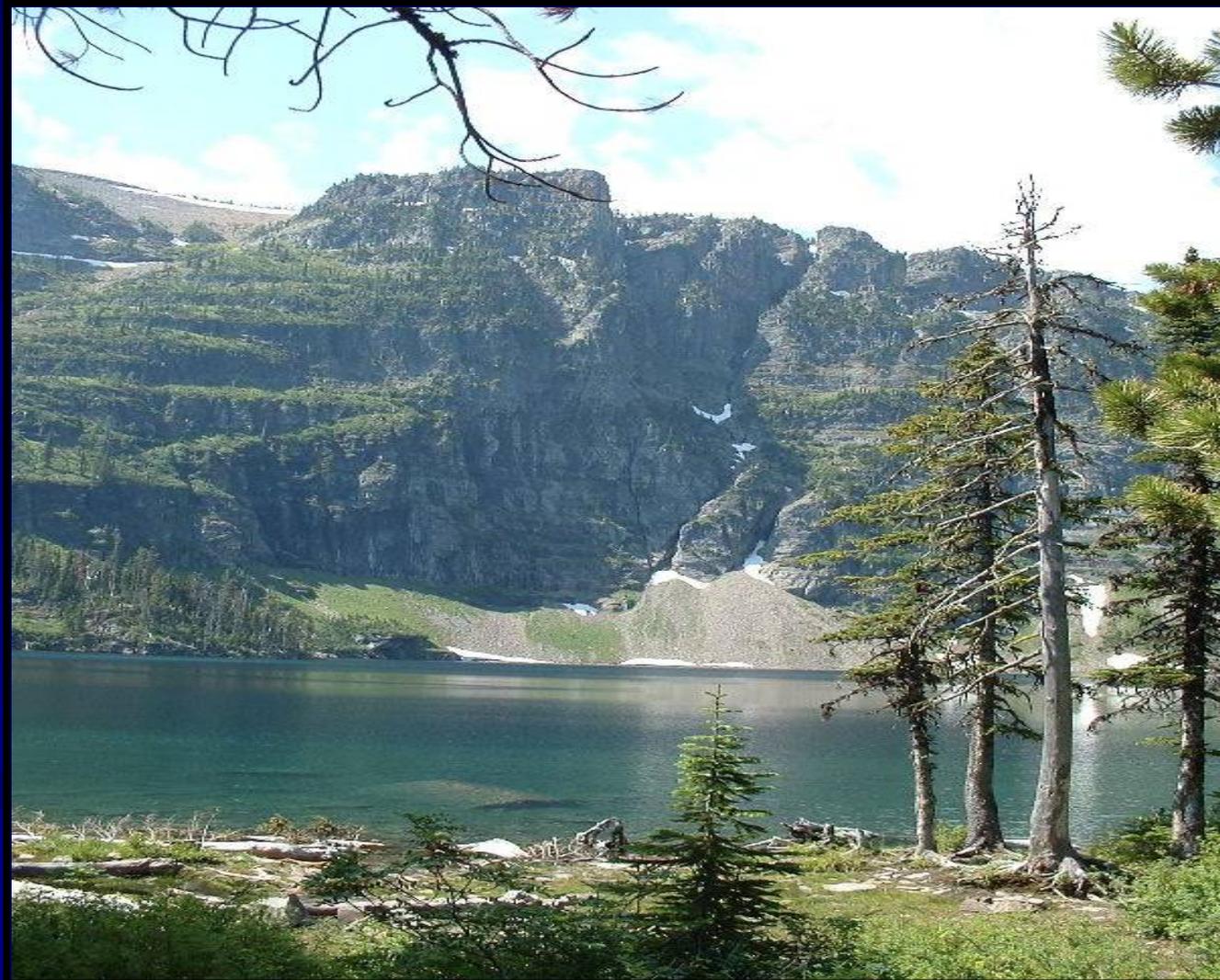
- Created to address the complex public health issues of the an environmental disaster and the lingering aftermath.
- Supports a community's successful adaptation and recovery over time and generations.
- Includes an interdisciplinary staff to:
 - ❖ Address a continuum of health issues
 - ❖ Advance education and research
 - ❖ Encourage political action to meet population, family and individual needs
 - ❖ Serve as advocate, broker, facilitator, and leader to improve community, family, and individual ARD outcomes both locally and nationally.



Public Health Policy Plan for Asbestos-Related Disease



Libby = Framingham
ARD = Heart Disease



To Learn More . . .



Session	Title	Time	Presenter
3058	Communication and Disasters: Challenges and Needs Associated with Three Types of Disasters	11/5 8:30-10	Rebecca Cline
3058	Communication Challenges in Responding to a Slow-motion Environmental Disaster: Exposure to Asbestos-contaminated Vermiculite in Libby, MT	11/5 9:30 am	Tanis Hernandez
4327	Stigmatizing Responses to Asbestos-Related Disease as a Barrier to Health Behavior	11/6 4:45 pm	Rebecca Cline
5074	Public Health Consequences of Family Dynamics in a Slow-motion Technological Disaster	11/7 9:15 am	Rebecca Cline