

# Chapter 3.1

## Asset Mapping to Consider Outcome Measurement and Stakeholder Engagement

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# Learning objectives

To understand key factors to consider when using asset mapping to support research into Health EDRM, including:

- The tradition of community health outcome measurement in disaster research.
- The concept of asset literacy and how it can be leveraged as an outcome of asset mapping to support disaster risk reduction.
- The value of engaging key stakeholders from the outset in order to develop a common vision of health deficits and assets and identify solutions to maximize community resilience.
- The use of an asset lens in outcome measurement studies in pre- and post-disaster contexts.

# Introduction

- Disaster research uses a **deficit-based approach** involving methods to develop risk and vulnerability profiles, map hazards, and assess adverse outcomes following events
- Measurement of outcomes and associated predictors should be based on wider considerations, including **protective factors** and **positive consequences** arising from disasters.
- **Disaster Risk Reduction (DRR)** has more balanced approach to understanding resilience, which focuses not only on risk and deficits, but also on physical and social assets within a community that can support resilience.

## **Case study:** *Psychosocial Impacts of the Lac-Mégantic Train Explosion (1)*

In 2013, a train accident in Lac-Mégantic, Quebec had major human, environmental, and economic impacts:

- 47 deaths.
- 44 homes and businesses destroyed.
- 2000 citizens evacuated.

Estrie Public Health Department and the University of Quebec in Chicoutimi conducted cross-sectional health surveys in 2014, 2015, 2016, and 2018, to study samples of adults living in and around Lac-Mégantic, gathering data on a variety of physical and mental health outcomes.



## **Case study:** *Psychosocial Impacts of the Lac-Mégantic Train Explosion (2)*

- 1 in 6 adults were considered to be intensely exposed to the disaster.
- Adverse psychosocial outcomes were associated with intensity of exposure.
- Persistent and widespread health needs, such as PTSD, anxiety and increased volume of people seeking mental health services were identified.
- When studying asset-based outcomes, the researchers found that intensely exposed adults were less likely to report optimal mental health in 2015 (as opposed to less exposed adults).



## **Case study:** *Psychosocial Impacts of the Lac-Mégantic Train Explosion (3)*

- The Public Health Department hosted a collective reflection day, which brought together local stakeholders who constructed a historical timeline together that traced key milestones in the recovery of their community and the progress made.
- By highlighting the interventions and initiatives that were implemented, they were able to identify the individual and community-level benefits, and the actions that created positive effects.



## **Case study:** *Psychosocial Impacts of the Lac-Mégantic Train Explosion (4)*

- A PhotoVoice project allowed local citizens to explain what made their community attractive and to map assets that support resilience within their community.
- They hosted 2 exhibitions to share their ideas with the public, politicians, and decision-makers.
- This initiative empowered citizens of Lac-Mégantic by
  1. Fostering community engagement.
  2. Allowing them to identify their assets and needs.
  3. Emphasizing the importance of social capital to activate individual and community resilience in post-disaster contexts.



# Outcome Measurement (1)



**Outcome measurement** is used to assess prevention and preparedness programmes, response and recovery activities, and community health impacts in the months and years after a disaster.

This is important for understanding the impact on a population over time and developing services to meet the changing needs.



## Outcome Measurement (2)

It is important to consider asset-based outcomes in addition to deficit-based outcomes.

**Salutogenesis** [*Saluto* (health) | *Genesis* (origin of)] is a model for public health by Morgan and Ziglio that is the foundation for asset-based health promotion. It is different from the traditional deficit-oriented approach, which focuses on what produces disease and psychosocial problems rather than health and well-being.

Positive health concepts include self-efficacy, resilience, social support/participation, and civic engagement.



## Outcome Measurement (3)

### **Physical Health** (acute consequences)

- Disasters can lead to primary health problems (wounds) and secondary health problems (infections or accidents).
- Somatic symptoms are also common in victims of disaster (sleep disorders, headaches and fatigue).

### **Mental Health**

- PTSD is the most common mental health outcome studied in a post-disaster context.
- Other psychosocial outcomes include psychological distress, depression, anxiety, phobia and grief.
- Positive outcomes include a sense of belonging to the community, a sense of coherence, positive mental health and post-traumatic growth.

## Outcome Measurement (4)



Surveys can be clinical or community based, cross-sectional or longitudinal.

- *Both* exposed and unexposed individuals should be monitored.
- *Both* negative and positive consequences should be considered.

# Asset Mapping (1)

- A **strengths-based approach** that focuses on identifying resources that promote health and resilience in a community or organization, in contrast to the traditional deficit-oriented mapping which has a pathogenic orientation to identify what makes people ill.
- Recently, asset mapping has been recognized as a strategy for DRR as well as for use in recovery.
- It is important to engage communities in identifying both physical resources that can support resilience and social assets across multiple ecological levels.



## Asset Mapping (2)

- A list of asset indicators that can be used for asset mapping was developed by Tracey and colleagues using data from essential service organizations.
- Emergent themes related to organizational resilience were identified and used to develop asset-oriented indicators to measure adaptive capacity within organizations to support disaster resilience.
- For Health EDRM research, a diverse set of assets should be considered in pre- and post-disaster contexts, although it can be a challenge to define and categorize them.

## Asset Mapping (3)

Asset Category	Description
Social	Assets that involve people, community networks, social programs, and are related to the social environment.
Personal characteristics	Assets within a person that can be mobilized to support resilience.
Energy	Assets that can be converted into other assets to support prevention/mitigation, preparedness, and response and recovery.
Physical	Assets that are tangible and support the needs and operational functioning of different systems in the community.

# Asset Literacy

Asset literacy requires:

- **Awareness**: helps people and organizations understand the potential value and contribution of different types of assets to support resilience.
- **Empowerment**: helps citizens understand how to mobilize different assets in their communities and how to get involved to contribute their own assets to support their communities.
- **Social Participation**: necessary to make asset literacy actionable.
- **Innovation and Engagement**: supported when people have self-efficacy and motivation to act on their knowledge of assets.

# Stakeholder Engagement (1)

The purpose of **stakeholder engagement** is to:

- Enhance the relevance of research to policy and practice.
- Increase the transparency of the process.
- Reduce the time between knowledge generation and adoption into practice.

Contributions of stakeholders can include:

- a) Providing input on study design.
- b) Participating as research participants.
- c) Supporting data collection.
- d) Attending town halls and meetings to provide feedback



## Stakeholder Engagement (2)

The **7P Framework** was developed to identify relevant stakeholders:

1. Patients and the public
2. Providers
3. Purchasers
4. Payers
5. Policymakers
6. Product makers
7. Principal investigators

# Applying an Asset Lens to Outcome Measurement (1)

An **asset lens** can be applied to assess the strengths and capabilities of a community (before, during, after a disaster).

A socioecological model can help to differentiate the levels that the assets reside in:

1. Individual
2. Organizational
3. Community/Society

Local knowledge is as important as scientific knowledge and should be considered accordingly.

## Applying an Asset Lens to Outcome Measurement (2)

The experiences of communities before, during or after a disaster provide in-depth and comprehensive information about an event. They should be used as case studies when studying disasters and should include:

- a) Needs and assets in the local community.
- b) How and by whom these needs and assets should be addressed.
- c) Barriers and success factors for sustaining resilience and recovery.



# Conclusions

- Health EDRM research should complement the traditional deficit-based approach of focusing on risks, hazards, and vulnerability, with an asset-oriented lens.
- Asset mapping involves fostering community engagement and is the essence of an all-of-society approach to disaster health research.
- However, it requires support from leaders and meaningful opportunities for participation by all.

# Key messages (1)

- A balanced paradigm which recognizes both assets and risks is needed to support better outcome measurement in disaster research.
- Stakeholder engagement must be part of asset mapping to ensure broad community perspectives and that local context is included in assessment and measurement.

## Key messages (2)

- Asset mapping can inform outcome measurement, but it is important that indicators reflect a balanced paradigm by including appropriate measures that consider assets in a community.
- Asset literacy is both a process and an outcome measure, which emphasizes local knowledge and intervention strategies that support community participation.

## Further reading

McKnight J. A Basic Guide to ABCD Community Organizing. Illinois: Northwestern University. 2003.

This report provides information about asset mapping, which can help decision-makers identify resources that promote health and resilience in a community or organization.

# References

**This chapter:** Généreux M, Tracey S, O'Sullivan T. Asset Mapping to Consider Outcome Measurement and Stakeholder Engagement.

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**A new taxonomy for stakeholder engagement in patient centered outcomes research.** *Journal of General Internal Medicine*. 2012;27(8): 985-91.



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