

Assessing Actionability of Public Health Data Dashboards

Itzhak Yanovitzky, PhD
Rutgers University



Society for Prevention Research (SPR) 34th Annual Meeting
May 26-29, 2026 | Washington, DC

Improving URE in public policymaking

- Use of research evidence (URE) in public policymaking is complex, dynamic, and at times unpredictable. This greatly complicates the task of measuring and assessing the impact of interventions to improve URE in policymaking.
- Developing and testing logic models of URE interventions that are theory-grounded and adequately situated in the context of the underlying policymaking process (i.e., the who, what, when, how, and why of formulating and implementing policy) can significantly enhance the rigor and value of evaluations.
- However, this assumes that all relevant variables (antecedents, mediators, moderators, outcomes) are considered, and that the research methods employed are appropriate for tracking URE and effects across actors, levels, time, and complex causal chains (e.g., indirect, cross-level, and unintended effects).
- Design thinking offers an alternative (or rather, a complementary) approach to assessing URE and its impact on public policymaking via engineering user-centered tools that provide optimal fit for purpose and use.



A TAXONOMY OF INTERVENTION APPROACHES

METAPHOR	INTERVENTION RATIONALE	STRATEGIES
Two-communities metaphor	Researchers can more effectively connect research with policy if they better understand and adapt to policymakers' culture and routines and seek to build trust between the two communities.	-Science communication training -Opportunities for direct engagement
Market metaphor	Closing gaps between supply (available research) and demand (research policymakers need); competition (other inputs) and inaccessibility of research to policymakers merit investments in improving the "product" (but not also marketing it).	-Research synthesis/translation -Passive/active dissemination -Production of timely/relevant research
Brokerage metaphor	Leverage intermediaries to enhance flow of research inputs to policymakers and collect feedback (passive brokering) and/or filter, synthesize, package, and disseminate research findings (active brokerage). Brokers can be internal or external.	-Evidence clearinghouses/portals -Policymaker-researcher matchmaking -Knowledge brokerage -Research-based partnerships
System metaphor	Establish or rearrange exiting (sub)systems to build/improve capacity (internal or external, via networks and partnerships) to acquire and use relevant research and/or improve interorganizational sharing of research and coordination of research activities (e.g., evaluation).	-Organizational rearrangement -Promote a culture of evidence use -Build internal research capacity -Partner with a knowledge network
Policy dialogue metaphor	Introduce research into conversations among stakeholders regarding policy matters to raise issues, propose policy solutions, and facilitate agreement or consensus, if possible, on evidence-informed policies.	-Co-production of research -Collaborations with journalists -Policy advocacy



URE by design

- Most URE interventions are focused on the problem of research transfer/dissemination ([knowledge-to-policy](#)). As a result, they employ strategies and tactics that are too simplistic, rigid, prescriptive, and linear to produce consistent effects across users, levels, and settings or that can be scaled. This extends to interventions that seek to access or influence policymakers to use research evidence by building or leveraging relationships (e.g., brokerage).
- A user-centered design perspective on improving URE in policymaking is focused instead on enabling policymakers to acquire and use relevant, credible, and timely research evidence they need, when they need it, and in the format they prefer, to successfully navigate a complex and dynamic policymaking process and achieve their goals ([knowledge-for-policymaking](#)).
- The emphasis, therefore, should be on designing usable and useful tools that provide an optimal fit for the user's purpose, capacity, circumstances, and constraints on using research evidence.

Affordances of data dashboards as research brokers

Dissemination and translation

- Efficient, timely, and universal access to data/evidence
- Clear, accessible, and intuitive communication of complex information
- Interactive experience with data (exploration)

Pattern recognition and discovery

- Trends and patterns
- Subgroup differences (inequities)
- Key performance and outcome indicators
- Bottlenecks and opportunities

Decision support

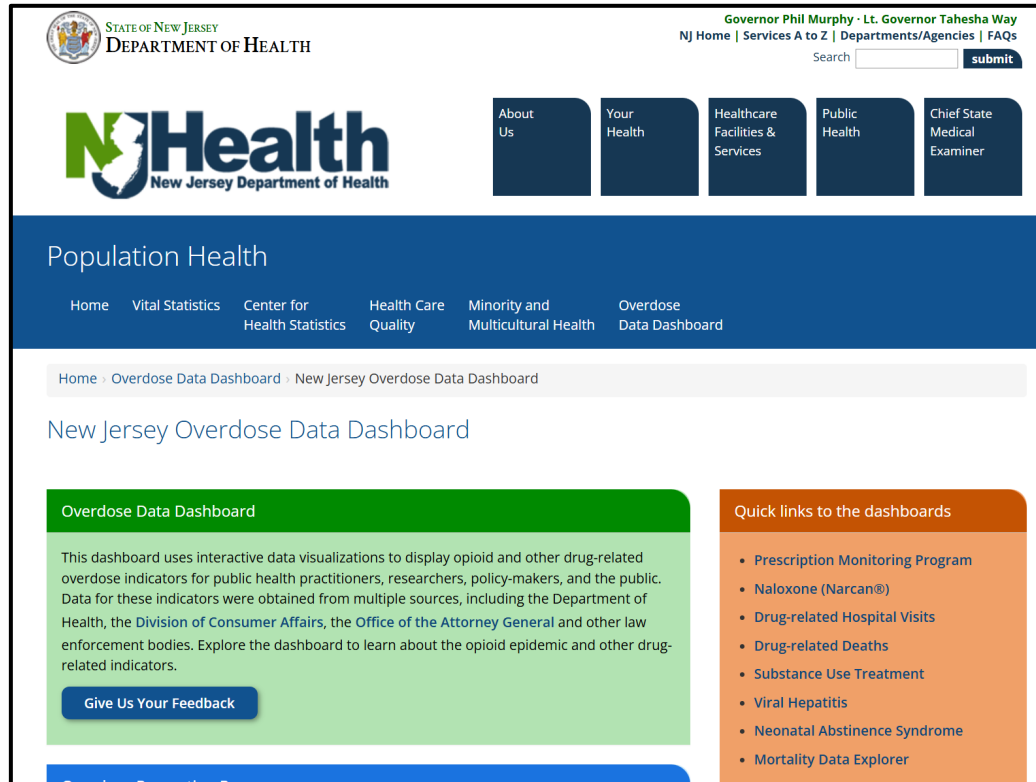
- Learning / enlightenment
- Goal-setting / prioritization
- Actionable insights (strategic/tactical/operational decisions).
- Evaluation and accountability

Collaboration, mobilization, and engagement

- Knowledge sharing and exchange
- Collective problem-solving and coordination
- Resource and asset mobilization / crowdsourcing
- Stakeholder and public engagement/dialogue



Multilevel interventions with dashboards



Links To Additional Dashboards/Resources:

- News and alerts
- List of state-wide hotlines and helplines
- Supports (e.g., NJ Harm Reduction Coalition)
- Safe drug disposal locations
- Medication-Assisted Treatment (MAT) centers
- Pharmacies participating in free Narcan program
- Local syringe access program
- Overdose response in-person training calendar

Additional Affordances:

- Users can download data for analysis (beyond what is possible with the dashboard)
- Users can download or embed data visualizations to improve communication with stakeholders
- Dashboard use contributes to building and maintaining relationships among users, including robust mechanisms for exchanging knowledge and sharing best practices
- Unrealized potential: linking and harmonizing opioid surveillance and response dashboards across states

- Dashboard was co-designed through inter-agency collaborations to improve coordination and access to all potentially relevant data.
- Town hall meetings and listening sessions informed understanding of diverse users' actionable knowledge needs and range of actions involved.

Dashboard design optimization

- Dashboards are already ubiquitous and familiar to users; rather than being designed or redesigned, they ought to be optimized.
- Fit for purpose (usefulness) optimization:
 - Enable critical knowledge needs (e.g., situational awareness, surveillance, monitoring, and benchmarking) and information functions (e.g., knowledge sharing and exchange, translation, and communication).
 - Support different types of decisions (strategic, tactical, operational) at multiple levels by generating useful (actionable) insights or forecasts.
 - Facilitate collaboration/coordination and stimulate dialogue among partners/stakeholders.
- Fit for use (usability) optimization:
 - Timely, reliable, and universal access to data.
 - Ease of navigation, interaction, and customization.
 - Workflow/task integration.
 - Relevant contextual information, prompts, and disclaimers.
 - Technical assistance and adaptivity.



This study was funded by a grant from the Robert Wood Johnson Foundation (#805640). To learn more about the project, please visit <https://ph3d.rutgers.edu/>.

Consolidated framework of dashboard actionability



- Guide co-design of actionable dashboards with users.
- Inform logic models, measurement, and evaluations.
- Enable the creation of customizable prototypes of dashboards and use cases.

