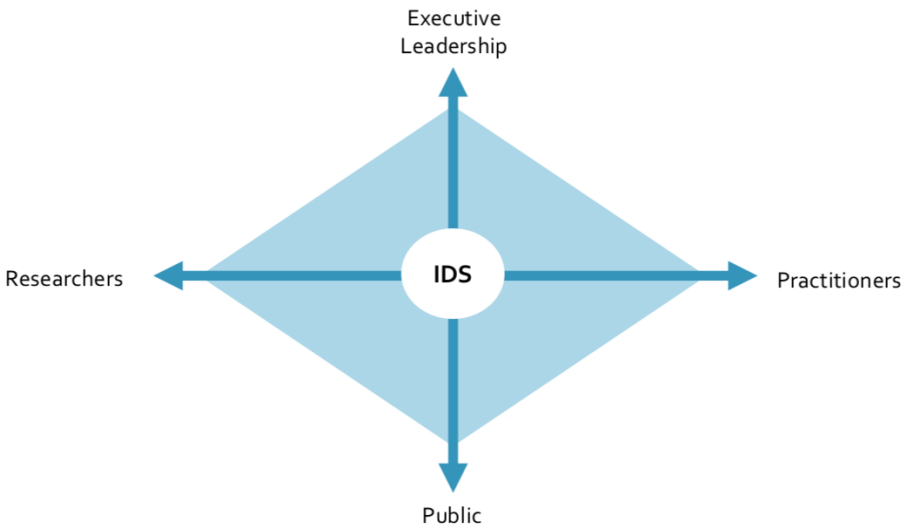
ACTIONABLE INTELLIGENCE
FOR SOCIAL POLICY

Integrated Data Systems:
Lessons from 10 Years of Actionable Intelligence

Government data systems often reflect the siloed agencies and departments through which governments deliver services. Actionable Intelligence for Social Policy (AISP), based at the University of Pennsylvania, works with state and local governments to break down those silos and help jurisdictions develop Integrated Data Systems (IDS). IDS link administrative data across government agencies to provide a more comprehensive "whole-person" view of individuals, families, and communities. Since 2008, we've coordinated a national network of states, counties, and university partners that operate IDS to learn about service utilization patterns, understand risk and protective factors, track long-term outcomes, evaluate programs, inform policy, and drive improvements in practice.

While this may sound like a technical project, we've found that the development and use of an integrated data system is primarily relational, and involves an ever-growing ecosystem that includes agency staff, executive leaders, community stakeholders, clients, practitioners, and researchers.

The IDS Ecosystem



Today, AISP's network of fully-established IDS sites comprises over 36% of the U.S. population, and continues to produce ground-breaking social science research while documenting best practices for data sharing and evidence-based policymaking. AISP is also currently supporting 15 additional states and counties in developing IDS capacity through a formal training and technical assistance program, the AISP Learning Community. Our Learning Community curriculum focuses on key considerations for building and using integrated systems in this complex ecosystem.[1]

Visit www.aisp.upenn.edu to learn more.

[1] These practices and more are detailed in four AISP Expert Panel reports and a white paper entitled "The Integrated Data System Approach: A Vehicle to More Effective and Efficient Data-Driven Solutions in Government."

Leading Practices for Building Integrated Systems

Strong and inclusive data governance. A high-functioning IDS will be supported by a defined governance structure that includes clearly defined policies and procedures to support decision-making, routine meeting structures, and well-documented proceedings, all fostering a culture of trust, collaboration, and openness. The particulars of the policies and procedures will vary widely based on the vision, mission and guiding principles for data sharing established by the data partners involved. A narrow goal of creating an academic research database will suggest one governance approach, which will differ significantly from the approach needed to support an ambitious agenda to create open access use of real time integrated data for any credentialed user. We recommend that each developing IDS site devote time both internally and with partner organizations to building consensus around what the IDS is intended to achieve. Taking the time to do this at the outset allows each site to establish tailored rules of engagement that best meet their needs and goals.

Streamlined legal agreements. As agencies develop a shared understanding of the goals, structures, and processes for operating their IDS, their legal counsel should document the most important of these components in legal agreements. Most high-functioning IDS rely on two types of foundational agreements to allow for routine data sharing in accordance with all relevant privacy laws. A "master" memorandum of understanding (MOU) serves as the foundational agreement between the parties that are contributing data to the IDS and the party that is doing the linkage. Once the MOU is in place, a data use license (DUL) can be used to set forth the terms and conditions under which a researcher, evaluator, or other outside party may access data from the IDS for a specific purpose. This two-tiered process can substantially reduce the time and energy spent executing ad hoc agreements for data sharing.

Data standards. A high-functioning IDS links only data elements that are both relevant to the social problem at hand and of sufficient quality to provide insight. Sites must first define "data quality" and then establish strategies by which quality may be built into the processes of measurement, collection, record transfer, and analysis. This will require continued exchange between those who are building the system and data model (generally agency analysts and technologists) and those who work most closely with the data day-to-day (generally practitioners and program staff). Such dialogue can also help surface issues of bias in the data that must be considered so as to ensure the ethical use of IDS to mitigate rather than reinforce structural inequality.

Clear and transparent communication and stakeholder engagement. The linking and use of sensitive personal data are governed by local, state, and federal privacy laws and regulations, as well as rigorous technical safeguards and ethical norms. Nevertheless, individuals and communities will likely have questions about how their information will be used and protected. The strongest IDS lean into opportunities to talk about why data are necessary for social policy improvement and innovation—and also make time to listen to and address stakeholders' concerns, expectations, and priorities.

Iterative inquiry processes. An IDS is used iteratively, incorporates new data elements over time, and improves with each use. While different uses will require different data and different analytic approaches, the same core infrastructure (governance, legal agreements, staff capacity, etc.) supports each inquiry. The more inquiries answered by using that core infrastructure, the more sustainable an IDS becomes.

Sustained investment in capacity and cross-agency coordination. An IDS cannot simply be "built," it must be maintained and sustained by dedicated staff. Making the case for such investment becomes easier when you consider that tracking the impacts of data-driven decisions is, in the broadest sense, impossible without IDS. For example, interventions in education for single mothers could potentially impact employability (workforce capacity), reduce housing instability (housing and homelessness), improve access to and use of early childhood education programs for their children (education), reduce obesity (health), and reduce the need for public assistance (public welfare). The true economic and social implications of such interventions can only be surfaced with IDS capacity to examine cross-agency data on individuals and families over time.