‣ **BUILDING CAPACITY**

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Building Capacity With State and Local Data Exchanges

You are likely familiar with the phrase, "Environmental health is intensely local." I thought maybe this premise could be attributed to a foundational environmental health leader. I could not find its origin, but my experience proves out the sentiment. Environmental health is intensely local.

Scanning my map of local health departments and health districts, I can mentally attribute local, regional, and statewide precepts. This reason is why broad adoption of the Food and Drug Administration *Food Code* is such an amazing accomplishment; it largely set a standard that dramatically superseded many older and local code bases.

While local health departments have a huge stake in the work they do arm-in-arm in their communities, the state departments of health (or equivalent) also have a significant stake. States are called on to protect the public health through their legislative recommendations, policy making, guidance, and program oversight.

The problem statement is this: Are state departments of health fully informed about the permit inventory, surveillance results, interventions, and outcomes tracked so reliably by local departments? If no, are the states truly employing data-driven policy, guidance, and oversight? Probably not.

A resolution to the problem statement is through data sharing. When I say data sharing, I DO NOT mean hectically compiled summary data—those special project status reports that plague organizations where the data does not flow freely.

Three Data Exchange Models
These three methods are used frequently and can be painted across a U.S. map, showing as regional hot spots.

Statewide Data System
The statewide data system simply means that state *and* local environmental health professionals use the same data system in real time. If all environmental health professionals in the entire state use the same data system, then the local work is not siloed. Problem solved? In many ways, yes.

Modern cloud-based data systems make this process easy. In some ways, a single statewide system is more economical than managing individual local data systems since the cloud is accessible from literally any connected device. It is one administrator, one contract, one configuration, and one training course for new employees.

Statewide data systems foster some blind spots. For one, if the state foots the bill, then the state will prioritize *its* programs and requirements over those of the local department. In fact, a common problem with this model is that local health department programs and goals do not fit within the system.

As an example, I spoke recently with a large health district. They explained that their city council has equity and inclusion targets and monitoring for all city services.

It is not optional. To contribute to those goals, the city needed a couple extra data fields and a couple extra reports. No luck, however, as it was not in the statewide scope and had to be managed outside their core system. Not ideal.

In another department, local ordinance authorized additional programs (e.g., plumbing) that was again out-of-scope according to the state's direct authority and scope.

So, the local departments gain access to a "free" system, but that system is incomplete. It is seen as a "reporting system" and not a solution for managing local environmental health.

State Driven (Downstream) Inventory Push

Some states retain the licensing authority, essentially outsourcing the inspection task to local department. In this instance, the state does maintain its central inventory of permitted facilities, pushing inventory lists to the local level for action.

The inspections performed locally might be summarized for the state or delivered as paper inspection reports, mostly as proof-of-work.

The state driven inventory push establishes statewide inventory that is useful for states to set fees and resource programs. Without detailed inspection data, however, it lacks punch.

State Driven (Upstream) Inspection Push

It is the state driven upstream inspection push that has 1) a lower barrier to entry, 2) conveys a dense amount of information, and 3) preserves local autonomy. It is, however, still not free.

In this model, data are created and maintained locally and received and consolidated by the state. The consolidated data provide the basis for guiding policy, benchmarking within the state, resource planning, etc.

Since there is no national standard (yet) to convey inspection data, each state or its vendor must agree on a file format to be ingested and republished centrally that represents the work across the state.

A full year of inspections might feel like a huge data set. In modern terms, it is not that much. One technique to make this approach more practical is to just send year-to-date data with every upload. That way, any subsequent updates and deletions are reflected in the new year-to-date replacement file, a monthly year-to-date file that is produced by each local department. That file simply replaces the prior month's file in the state's consolidated inspection database. It gets the job done.

Do State and Local Data Exchanges Work?

Yes, they work—but with care and feeding. Like so many other aspects of your job, it is a matter of leadership, education, cajoling, etc.

Tips to Make Statewide Data Systems Work

1. Involve local departments in system creation, selection, configuration, etc.
2. Establish a framework that supports local departments and what they do locally.
3. Promote right-minded interfaces and data exchanges in a manner where local departments can participate without double-data entry when required.
4. Back share the data and make the consolidated data set available to all who contributed. This practice returns value to all.

Tips to Make File Exchanges Work

1. Create a file format that will not change. Make that file format future proof.
2. Make the file format something that anybody can open, read, and understand. A comma-separate value (CSV) format is ideal.
3. Choose a solution that is easily automated. A scheduled report that is automatically emailed on the first of every month is ideal.
4. Back share the data and make the consolidated data set available to all who contributed. This practice returns value to all.

While environmental health is intensely local, it is also significantly regional and critically global. Consolidating and making second- and third-use of those data continue to lift up the profession.

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