

The Path to Data-Driven Public Health

Introducing the Public Health Data Modernization Maturity Model (DM³)

Unlocking the Potential of Data Modernization for U.S. Public Health
Departments

Introduction

We Get It. We've Been There.

When one of our founders was serving as a health department CIO, they watched a promising data integration project stall for eighteen months.

The technology was ready. The funding was secured. But without a clear framework for assessing where the department actually stood in its data journey, every stakeholder had a different vision of success. The project team spent more time in meetings debating priorities than actually modernizing anything. That frustration, that sense of spinning wheels while communities waited for better public health outcomes, is what drove us to create DM³.

We built F&T Labs because we lived the challenges you face every day. We understand the reality of working within government constraints, navigating complex stakeholder relationships, and trying to modernize systems while simultaneously keeping them running. We know what it's like to have ambitious goals and limited resources, to see the potential of data while wrestling with legacy systems and processes.

The Struggles Public Health Departments Face

Modernizing public health data systems is complex. Like navigating a challenging maze, health departments often grapple with unclear paths, dead-ends, and circular routes that lead them back to where they started. The Public Health Infrastructure Grant (PHIG) funds are a significant step forward. Still, the absence of a clear road map to achieving the goals outlined by the CDC's Data Modernization Initiative can leave many departments feeling lost in a labyrinth of data modernization.

One of the challenges is the intricate and unique nature of the American public health data ecosystem. Each department has different data sources, uses, and stakeholders, making it difficult to find a one-size-fits-all solution that can be developed nationally and implemented locally.

Moreover, while many public health departments recognize the importance of data modernization, moving from recognition to implementation is another story. With no shared understanding or benchmark for data modernization, departments can struggle to know where to begin, measure progress, and identify the best paths forward.

"For data modernization to become a reality in the U.S., a prescriptive, adaptable, and holistic framework is needed."

The Current Health of Data Modernization

The journey to data modernization in U.S. public health departments is a work in progress. The drive and intent to modernize exist, but the roadmap is blurred, and the journey is filled with hurdles.

While some public health departments are already making strides in modernizing their data ecosystem, others are struggling to get started. Those making progress have identified a clear strategy for data modernization, invested in robust technologies, and established partnerships to boost their efforts. However, these departments are more the exception than the rule.

For the majority, the thought of data modernization is overwhelming. Lack of clarity on the process, insufficient technical know-how, and resource constraints are just a few of the challenges they face. For public health practitioners to flourish and their communities to thrive, public health departments need a guide, a partner who can help them chart their course, set achievable targets, and navigate the obstacles.

Your Compass on Your Data Modernization Journey

When embarking on a journey as complex as data modernization, a dependable guide can make all the difference. That's where Flourish & Thrive Labs (F&T Labs) and our Public Health Data Modernization Maturity Model (DM³) come in.

WHAT IS DM³?

DM³ is a **structured assessment and strategic planning engagement** that evaluates your department's current data maturity across six key dimensions and provides a customized roadmap for modernization. It combines expert-led conversations with your staff, comprehensive data ecosystem mapping, and evidence-based recommendations tailored to your specific context.

What makes DM³ unique is its ability to adapt to your department's specific circumstances. We understand that each health department's needs, challenges, and goals are as unique as the communities they serve. Our model provides clear benchmarks to measure progress, making it easier for departments to monitor and report on their data modernization efforts.

A NOTE ON SCOPE

DM³ is a comprehensive assessment designed to give you a complete picture of your data modernization maturity. While we recommend this thorough approach, we recognize that some departments may be looking specifically for data governance guidance or have more targeted needs. We're happy to discuss how DM³ can be adapted to meet you where you are.

How DM³ Helps You Navigate Your Journey

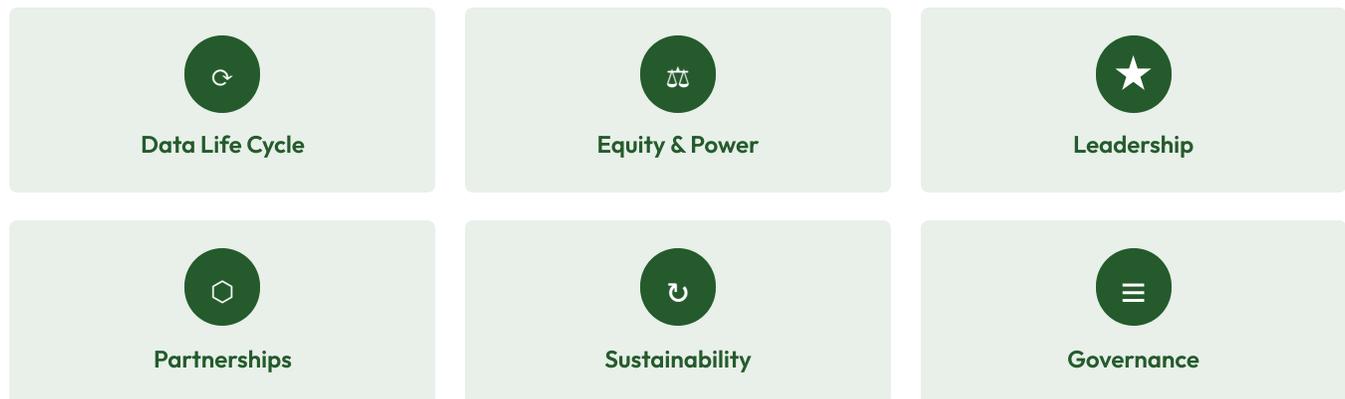
The Goal of DM³

DM³ aims to facilitate your journey to a robust and resilient public health data ecosystem. A mature, modernized data ecosystem is one where data is accessible, actionable, and accurate. It is where data doesn't just exist but is injected into the everyday decisions we make to improve the health of our communities.

The focus is not on data collection or storage or creating reports. Rather, a modern health department should see data as an enabling factor that enables them to achieve public health outcomes and operational excellence.

The Six Key Dimensions

DM³ evaluates your department across six interconnected dimensions:



The Data Life Cycle

Every piece of data has a life cycle - it's collected, processed, stored, analyzed, shared, and ultimately used to inform decisions. DM³ takes a holistic view of the data life cycle, considering how each stage interacts and impacts the others. During the data collection stage, DM³ helps you evaluate your data sources and collection methods. In processing and storing data, the model guides you in assessing practices that ensure data quality and security.

Equity and Power

Equity and power dynamics should never be sidelined when pursuing the public's health. Data is power in our culture and can be an incredible tool for addressing health disparities. Central to DM³ are considerations of equity and power: who collects the data, who interprets it, and whom it serves. We evaluate whether data interpretation processes are transparent and inclusive, and whether they

Leadership

Leadership plays a pivotal role in steering data modernization. This journey is not merely about implementing new systems; it requires a shift in thinking and a commitment to creating a data-driven culture. Leaders must clearly envision data modernization and articulate its value for public health. Our DM³ model helps leaders understand their role in creating an environment conducive to change and empowers them to monitor progress through benchmarks and key performance indicators.

Partnerships

Partnerships are the bridges that connect you to the resources, expertise, and support needed to navigate data modernization successfully. Community organizations can translate data into actionable insights. Academic institutions can provide research support and analytics expertise. Technology vendors can offer the latest data solutions. Partnerships with other health departments provide shared learning opportunities. DM³ helps departments identify current and potential partners.

Sustainability Practices

Data modernization is a continuous process. We think about sustainability in two dimensions:

Organizational sustainability includes the longevity and continuity of resources necessary to continue modernization practices. Progress can stall as enthusiasm wanes if efforts are not made to secure long-term funding or to nurture and retain needed talent.

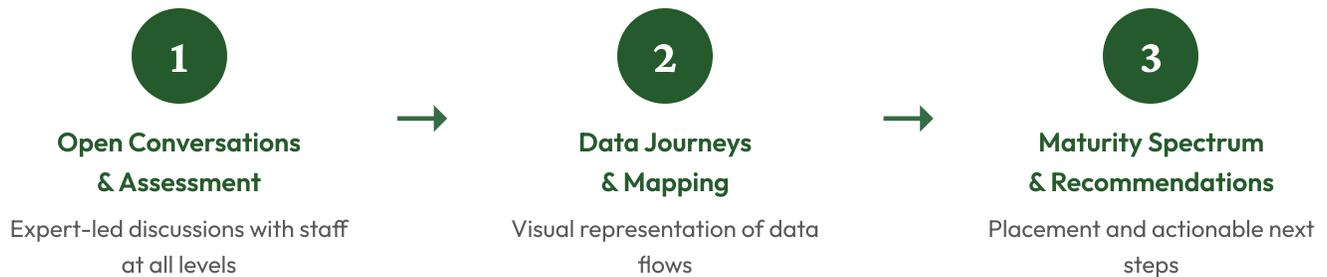
Environmental sustainability recognizes that public health and environmental health are deeply interconnected. Data infrastructure has a physical footprint: servers consume energy, data centers require cooling. DM³ encourages departments to consider the environmental impact of their data practices as part of their modernization planning.

Governance

In data modernization, governance is not just about control but about establishing a clear vision, setting strategic direction, and ensuring accountability. Good governance ensures data is used responsibly, ethically, and effectively. The DM³ model incorporates governance as a fundamental component, helping departments establish effective governance structures tailored to their needs.

"Data governance is the foundation upon which successful data modernization is built. Without clear policies, roles, and accountability structures, even the most advanced technology investments will fail to deliver their promised value."

How We Do DM³



Phase 1: Open Conversations & Assessment

DM³ begins with an assessment that allows us to take a comprehensive look at your current data ecosystem. It involves expert-led open conversations with staff members at all levels of your health department. These conversations occur over multiple days and are facilitated through a meticulously developed set of questions and prompts.

We recognize the role that power dynamics may play, particularly for frontline staff and technical personnel who often have valuable insights that may not surface in traditional top-down assessments. We actively seek to hear from voices at all levels.

In addition to conversations, we gather supplementary information including current data collection mechanisms, existing surveys and assessments, data dictionaries, and system documentation.

Phase 2: Data Journeys & Mapping

This is where we convert our learning into a tangible, visual form. Data Journeys & Mapping involves creating a detailed representation of your existing data flows—from origins to final destinations and every point in between. This includes who collects, processes, analyzes, and uses the data, how they do so, and the tools and systems involved.

This process highlights the people, processes, and technology that shape your data journey. We identify bottlenecks, vulnerabilities, and opportunities for enhancement. The data map serves as a tool for clear communication, a guide for strategic planning, and a benchmark for measuring progress.

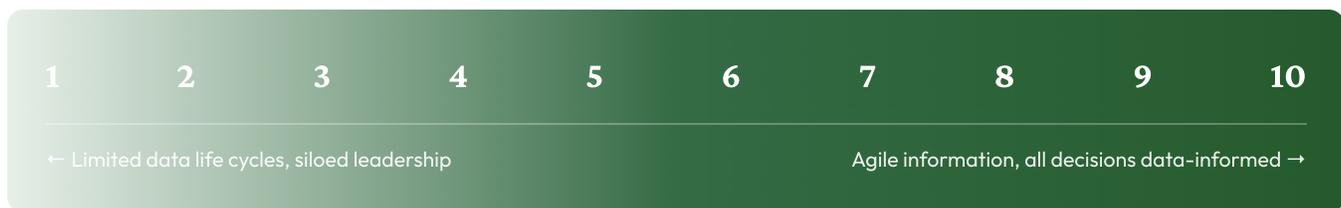
Phase 3: Maturity Spectrum & Recommendations

The Maturity Spectrum & Recommendations phase is the culmination of the DM³ process. It takes the insights from the previous stages and uses them to place your department on the DM³ maturity spectrum.

The 10-Level Maturity Framework

The DM³ maturity spectrum maps your department's progress along two key axes:

- **Information Transparency:** How available trusted, reliable information is to those who need it to make decisions
- **Optimal Decision-Making:** How close you are to making the most equitable, data-informed decisions possible



Levels 1-3: Limited data life cycles, siloed data leadership, governance exists in pockets rather than across the organization.

Levels 4-7: Known and robust data life cycles, champion leaders emerge, governance processes formalize, standards-based data sharing becomes possible.

Levels 8-10: Efficient and continuous data life cycles, governance supported by robust systems, data widely available, every workforce member capable of interpretation.

Most departments we work with fall between Levels 3 and 6. The goal is not necessarily to reach Level 10, but to understand where you are and identify impactful next steps.

Based on your placement, we provide specific, actionable recommendations that align with your strategic goals. These pragmatic recommendations prioritize high-impact, feasible changes. The process is designed to be revisited as you implement changes and progress on your journey.

The DM³ Difference

DM³ was built by public health professionals for public health departments.

This isn't a generic framework borrowed from the private sector and adapted for government use. Our team has worked inside health departments, navigated the same constraints you face, and understands that public health data modernization requires a different approach than what works in other industries.

Traditional Models	DM ³
Technology-focused	People, process, AND technology
Rigid, sequential stages	Flexible, meet-you-where-you-are
One-time assessment	Iterative, designed to be revisited
Generic frameworks	Built specifically for public health
Theoretical recommendations	Grounded in real-world constraints

What Sets DM³ Apart

- **Breadth:** We consider not just systems and tools, but people, processes, technology, culture, and power dynamics.
- **Flexibility:** We don't prescribe a rigid sequence of stages. We meet you where you are and help you identify your best path forward.
- **Iteration:** We see data modernization as an ongoing journey. DM³ is designed to be revisited as you progress.
- **Practicality:** Our recommendations are grounded in what's actually feasible within public health budgets and constraints.

Using DM³ To Support Your Journey

Needed Pre-work

Unlike other maturity models, there are only two key requirements to get started:

- **Desire for Growth:** Your department's willingness to understand its current data maturity and aspiration to improve it.
- **Availability of Staff Time:** Active participation from staff across your health department. In most situations, we can consolidate the interviews to 1-2 days.

DM³ is not about overhauling your entire system or labeling your current processes. It's about understanding where you stand and what steps can be taken to advance.

Expected Outcomes

By leveraging DM³ as your foundation to understand where you are and where you're going, you can expect:

✓ IMPROVED DATA PRACTICES

Enhanced reliability, security, and utility of your data by aligning with best practices and incorporating lessons from peers.

✓ INCREASED TRUST

Greater transparency and accountability that builds trust with community members and fosters engagement.

✓ ENHANCED DECISION-MAKING

More informed, evidence-based decisions that enhance your ability to identify and address public health issues.

✓ STRENGTHENED WORKFORCE

A modern, data-driven approach that helps attract and retain talent who want to make an impact using modern approaches.

When To Use DM³

There is never a bad time to use DM³ on your data modernization journey. However, certain circumstances may signal a particular need:



Data Challenges

Struggles with outdated, ineffective, or insufficient data systems



Resource Allocation

Uncertainty about where to invest in improving your data ecosystem



Strategic Alignment

New goals that require better data or more mature data practices



Inefficient Processes

Time-consuming manual processes or duplicated efforts



Governance Gaps

Lack of clear policies, roles, or accountability structures

Any of these circumstances signals a need for DM³.

About Flourish & Thrive Labs

Flourish & Thrive Labs (F&T Labs) is a woman-owned small business with federal 8(a) designation, founded by former public health officials who understand the challenges of government health departments from the inside. Our team includes former health department CIOs, epidemiologists, and public health informaticists who have walked in your shoes.

We are not consultants offering advice from the outside. We are former colleagues who have experienced firsthand the challenges of modernizing data systems within the constraints of government budgets, procurement processes, and regulatory requirements. We built F&T Labs because we saw a gap between what health departments needed and what was available in the market.

Our Services

Beyond DM³ assessments, F&T Labs offers a range of services to support your data modernization journey:

Data Governance Development

Establish clear policies, roles, and accountability structures for data management.

Strategic Planning

Develop actionable strategic plans aligned with your data modernization goals.

AI Implementation Support

Navigate the emerging landscape of AI in public health responsibly and effectively.

Training & Capacity Building

Build data literacy and technical capacity across your organization.

Whatever stage you're at in your data modernization journey, F&T Labs is here to partner with you.

"We believe that when public health departments flourish, their communities thrive."

Ready to Start Your Journey?

Schedule a conversation with our team to discuss your department's needs and learn more about how DM³ can support your data modernization journey.

[Schedule a Meeting →](#)

fandtlabs.com/schedule-a-meeting