Public Health Data Annotated Bibliography for Indiana Governor's Public Health Commission

#	Title	Source/Author	Date	Link	Document Headlines, Summary or Results
1	Public Health Data Systems Task Force-Report to the Health Information Technology Advisory Committee	Office of the National Coordinator for Health Information Technology	July 2021	PHDS_TF	Report reviewing effectiveness of PH data systems for a new normal where PH is a strong partner with health care. Focuses on analyzing interaction between PH and clinical data systems. Provides analysis and recommendations that focus on the challenges, gaps, and ideal future state for data sharing. Focuses on topics highlighted by the COVID-19 pandemic and provides recommendations supporting development of 21st century public health data systems.
2	Data Modernization Initiative Strategic Implementation Plan AND Roadmap	Centers for Disease Control	December 2021	DMI Strategic Implementation Plan DMI_Roadmap	Outlines the CDCs strategic plan for achieving a modernized national public health infrastructure. Acknowledges that this is not only a national challenge but that state and local data policies impact overall success. Outlines 5 key priorities and related objectives. Notes that the technical solutions may be quicker than changes to laws, polies, and authorities that govern data use and that broader factors including workforce skill will impact success. Roadmap include as an appendix and also available via separate link.
3	Data Modernization Initiative: Case-bases surveillance capabilities and technology recommendations	Public Health Informatics Institute	August 2021	Public Health Informatics Institute	Interviews were conducted with stakeholders to collect recommendations on how to modernize public health systems at state and local health departments. Developed recommendations include enhancing PH systems that were not build to be real time by establishing some automation via integration; developing ability to pull data from electronic health record (HER) systems and not only rely on data push from these systems; establishing uniform system standards and functionality and include public health stakeholders in standard development; reduce data silos and harmonize data across programs and adopt standard data sets such as USCDI; modernize systems and capabilities with agile, modular and cloud based approaches; and improving cross jurisdictional data sharing. Enhancing predictive analytics functionality with AI is also recommended, though it is noted that foundational

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					improvements to systems are more urgent and necessary to capitalize on the opportunity presented.
4	Public Health Surveillance: Preparing for the Future	Office of Public Health Services, CDC	2018	PHSurveillance	Provides overview of current state and future PH system goals. CDC maintains over 100 surveillance systems and relies on over thousands of agencies at the federal, state, local and tribal levels to support gather information. This structure creates a reporting burden and duplication of effort across the PH system. Report provides overview of needs for improving surveillance systems and processes at the federal level and the corresponding impacts on states, includes mortality reporting, electronic lab reporting, electronic case reporting and workforce.
5	Charting a Course for an Equity-Centered Data System: Recommendations from the National Commission to Transform Public Health Data Systems	Robert Wood Johnson Foundation	October 2021	Equity-Centered Data Systems	Provides recommendations for transforming public health data systems to promote equity. These recommendations include: Identifying and engaging relevant stakeholders in PH data, promoting data availability, improving workforce data understanding and analytical capacity, tracking positive as well as negative outcomes, making sharing and pooling data across agencies that receive public funds the default, engaging business and technology companies in supporting public health, collection of sufficient equity indicators in data, broadening the definition of public health data to include more emphasis on social context and not just focus on health data, and engaging the community in interpreting public health data among others. Includes state and local government, public health, health system and business calls to action for advancing equitable PH data systems.
6	Connecting Health Care and the Nation: A 10-Year Vision to Achieve an Interoperable Health IT Infrastructure AND Roadmap	Office of the National Coordinator for Health Information Technology	2015	10-year Vision ONC Roadmap	Paper provides overview of how interoperable health IT infrastructure supports more cost-effective health care and better population outcomes. Defines an interoperable health IT system as a system that provides the right data to the right people at the right time. Promotes modular approaches that best serve local interests with the ability to interface regionally and nationally. Places public health data in the context of the entire health ecosystem. Defines to goal of developing a Learning Health System that

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					continuously improves. Notes that advancing towards fully interoperable health IT is not just a technology challenge. Companion roadmap visual accompanies whitepaper.
7	National Profile of Local Health Departments	National Association of County & City Health Officials (NACCHO)	2019	2019 NACCHO Link	The profile study is the only longitudinal study of its kind focused on the infrastructure and practice of local health departments (LHDs). The Informatics chapter provides information on LHDs use of electronic reporting resources by LHD side. Immunization registries and electronic disease reporting systems the most common data reporting mechanism used by LHDs. LHDs are less likely to use electronic lab reporting or Health Information Exchanges.
8	State Strategies to Advance Health Data Interoperability	National Governors Association	March 2021	NGA Health Data	Provides recommendation across the health system including providers, payers, and public health. Encourages bidirectional exchange of standardized PH data, and connection to regional and national data sharing networks. Promotes designation of a health data public utilization to provide common data needs and identifying opportunities for interstate data exchange.
9	Book of Data and Organizations: A census of major health and health related data, capabilities, and talent in Indiana	BioCrossroads	July 2021	Book of Data and Organizations	The Book of Data provides a comprehensive overview of the available health data stakeholders in Indiana. Includes the types of data applicable to each stakeholder and their data capabilities. The intent of the resources is to promote collaboration, support data partnerships and reduce the need to seek data elsewhere.
10	Public Health Data Transformation Initiatives	epiTrends, Washington State Department of Health	2019	epiTrends	Introduces the Washington state data transformation initiative geared towards reducing silos and creating enterprise level PH data solutions.
11	Colorado Health IT roadmap	Colorado Office of eHealth Innovation	November 2021	Colorado Health IT Roadmap: Leading Change Today for a Healthier Tomorrow	Update to Colorado's Health IT roadmap based on lessons learned from the COVID-19 public health emergency. Highlights differences in providers ability to act based on if they had access to a health information exchange, the need for digital health equity access, the success of telehealth visits during the PHE and the need for better access to broadband services that allow them, promotion

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					of EHR systems for small providers. Includes specific recommendations to support achievement of the goals such as adoption of standard data sharing agreements across the state, creating an innovation resource center to support access to digital health solutions, among others. Provides an overview of health IT best practices nationally for funding, services, and policy solutions.
12	Challenges to Public Health Reporting Experienced by Non-Federal Acute Care Hospitals, 2019	Office for the National Coordinator for Health Information Technology	September 2021	Public Health Reporting Challenges	Provides analysis from the 2019 American Hospital Association Information Technology supplement to detail the types of challenges hospitals experienced in reporting to public health agencies. Small, rural, independent, and critical access hospitals were more likely to experiences challenges with reporting, while hospitals that participated in a health information exchange were less likely to experience challenges. The strong HIE infrastructure in Indiana led hospitals in the state to have average or less challenges with reporting information to public health agencies when compared to all states.
13	Improving Notifiable Disease Case Reporting Through Electronic Information Exchange-Facilitated Decision Support: Controlled A Before-and-After Trial	Public Health Reports; Dixon, B. E., Zhang, Z., Arno, J. N., Revere, D., Joseph Gibson, P., & Grannis, S. J.	2020	Improving Case Reporting	Two-year controlled trial in Indiana showed that electronic prepopulated forms as part of provider workflow increases notifiable disease reporting rates, timeliness, and completeness of information.
14	Indiana Public Health System Review	IU Richard M. Fairbanks School of Public Health	December 2020	Indiana Public Health System Review	Provides comprehensive review of the Indiana Public Health system including technological and data challenges. One of the six qualitative findings is that there is insufficient technology and essential infrastructure coupled with insufficient data for evidence-based decision making (pg. 56). One way data sharing (LHD to state), paper based LHD processes and local infrastructure and analytical resources present data challenges. Participant recommendations include a single IT system that connects all parties (pg. 61) which aligns with the report recommendation to leverage information systems that

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					employ a common data platform and ensure real-time reporting at all levels of the public health system (pg. 7).
15	Collaborating for Improved Information Technology systems	Center for Sharing Public Health Services	November 2019	CSPHS_Case Study	Provides case study of FL health departments establishing a centralized IT function via a regional IT office that remained cost neutral for LHDs.
16	Interoperability self-assessment tool	Public Health Informatics Institute	February 2019	Interoperability Tool	Self-assessment tool for health departments that allows them to assess and score their interoperability capacity using the Capability Maturity Model framework.
17	Info savvy self-assessment tool	Public Health Informatics Institute	February 2019	Info Savvy Tool	Self-assessment tool for health departments that allows them to assess and score their informatics and data policies and capacity using the Capability Maturity Model framework. Designed to inform future capacity building needs.

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