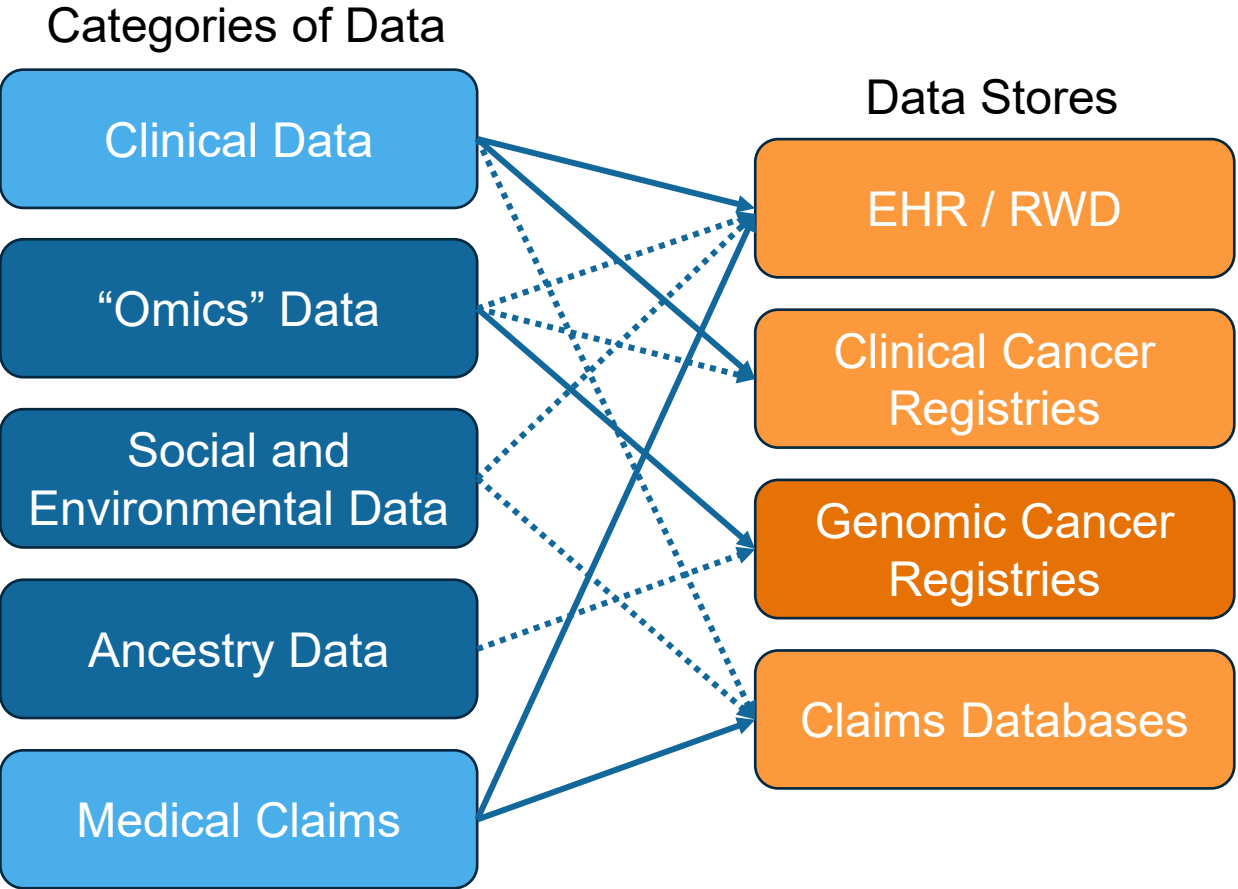


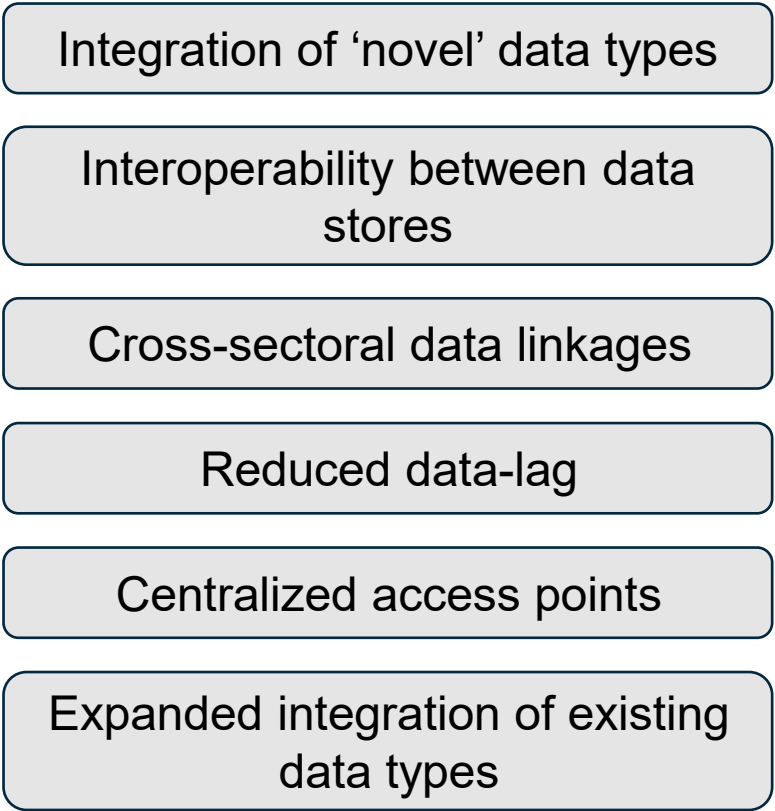
Policy Opportunities from Technological Innovations

Enhancing data integration and interoperability

Current State:



Future State:



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Established Link



Tentative Link

Policy Opportunities from Technological Innovations

Getting from the Present to the Future

- Integrating precision from cell to society – “DNA to ZNA”
 - Innovations within translational research tiers:
 - T1: multicancer early detection, high dimensional omics, etc.
 - T2: mHealth, novel wearables, simulated patients
 - T3: decentralized cancer surveillance platforms, clinical decision support AI
 - T4: smart environmental monitoring systems, centralized data access points
 - Innovations between translational research tiers:
 - Publicly available NLP for harmonizing and standardizing data for interoperability
 - Infrastructure-focused research funding to advance capture of unstructured and multimodal data
 - Blockchain-based data integrity and data security across systems

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Policy Opportunities from Technological Innovations

Getting from the Present to the Future

- Policy recommendations
 - Enhancing funding opportunities, especially for T3-4, interoperability, and infrastructure enhancements and implementation
 - Adaptive regulatory approaches for novel cancer surveillance technologies
 - Clarify AI regulation within and beyond the traditional drug/device pathways
 - Promoting interoperability and data integrity standards
 - Cross-standardization projects between OMOP, FHIR, HL7, etc.
 - Data integrity technologies (e.g., block-chain)
 - Expanding public-private partnerships with direct or indirect impacts on cancer surveillance
 - e.g., CHAI, Project Datasphere, NCI Cancer Research Data Commons

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