Improving Cancer Surveillance – Enhanced Registries and Beyond

Co-Moderators

Lisa Richardson, Centers for Disease Control and Prevention Robin Yabroff, American Cancer Society

Speakers

Session 1: Lisa Richardson and Nadia Howlader

Session 2: Scarlett Lin Gomez and Larissa Nekhlyudov

Session 3: Lawrence Shulman and Peter Paul Yu

Session 4: Bryan Palis (participating virtually) and Lisa Richardson

Session 5: Robin Yabroff and Cathy Bradley



Overview of the Current State of Cancer Surveillance

KEY ISSUES IDENTIFIED BY SESSION SPEAKERS AND PANELISTS AND

POLICY OPPORTUNITIES TO ADVANCE PROGRESS

Issue 1:

- **Data Collection Challenges**: all presentations highlighted the difficulties in capturing comprehensive, real-world cancer data due to rapid advancements in treatments, variability in data sources, and limitations in current reporting systems.
- Policy Opportunity 1: Encourage Comprehensive Disease Status Reporting Linked to Reimbursement
- **Rationale:** Linking cancer reporting to reimbursement to incentivize healthcare providers to ensure complete and accurate data submission (all payers and/or institutions)
- Develop standardized reporting protocols to ensure consistency and accuracy across different healthcare facilities and encourage use of the standardized report.
- Provide training and resources to healthcare providers and others to facilitate compliance with the new reporting requirements.
- Consider the use population-based registry as a sampling frame to obtain detailed clinical information (e.g., recurrence, biomarkers, treatment) on a population-representative sample and use this information to make inference for the whole population.

Overview of the Current State of Cancer Surveillance

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Issue 2:

- **Need for Improved Data Integration**: there was a shared emphasis on the need for better integration and interoperability of data sources to enhance cancer surveillance and reporting.
- Policy Opportunity 2: Enhance Data Integration and Interoperability through National Standards
- **Rationale:** Establishing national standards for data exchange can streamline the process and ensure effective integration of data from various sources.
- Develop and enforce national standards for cancer data exchange, such as the FHIR Implementation guide for cancer case reporting.
- Encourage collaboration between government agencies, healthcare providers, and technology vendors to ensure the widespread adoption of these standards and platforms.
- Provide funding and technical support to healthcare facilities, labs and others to upgrade their data systems and comply with the new standards.

Lessons Learned from U.S. and International Cancer Surveillance Efforts

- State/governmental regulatory policies play a major role (barrier/facilitator) in data access, linkage & sharing
- Level/flat/reduced funding challenging, especially to support innovations when having to maintain current procedures & lack of IT support
- Delays in data availability for reporting and research
- Insufficient funding for cancer surveillance
- Existing data gaps recurrence & disease progression
- Challenges in linkages to other data and patient surveys leads to other important gaps (for example, survivorship outcomes including patient experience)
- Lack of denominator data → disparities in reporting for population groups & granular geographies
- Underutilization of patient advocacy for surveillance/tumor registry

Lessons Learned from U.S. and International Cancer Surveillance Efforts

POLICY OPPORTUNITIES TO ADVANCE PROGRESS

Surveillance data need to be more rapidly available and complete with no gaps in key elements

- Multi-pronged approach (e.g., recurrence)
- Efficient, seamless linkages with other data sources
- Ability to use and link data with patient surveys
- Ensure efforts do not exacerbate disparities

Revise state policies to facilitate data access, linkages & sharing while protecting patient privacy

- Leverage Privacy Preserving Record Linkage (PPRL) methods & federated query model
- NAACCR's Virtual Pooled Registry as model
- Partner with patient advocates

Increase funding for cancer registries

- Registries remain costly (human review still essential) and need to be supported
- Need additional support for technological innovations
- Need more investment towards robust data integration infrastructure
- Need for more rapid data availability

Ensure health equity always when looking to advance innovations

Data Collection Methodologies and Technological Advances in Cancer Surveillance

- Data entered are not in a digitally readable format.
- Not all critical clinical and testing (path/radiology) data points entered at all.
- Registry data currently not as timely as needed
- We don't have good data intra-operability and sharing standards.
- What data do we really need do we need use cases that help to define what data we really need.
- What will be the balance between structured data capture, generative AI and human curation.
- Documentation burden on physicians and nurses is already at a critical point
- Current payment incentives do not support good data entry
- What is the business case for doing better with data entry and extraction and registry population.

Data Collection Methodologies and Technological Advances in Cancer Surveillance

POLICY OPPORTUNITIES TO ADVANCE PROGRESS

- Increase incentives to document critical data points in structured data
 - Clinic notes
 - Pathology reports
 - Radiology reports
- Understand the right balance between entry of structured data, use of AI/MML, and manual abstraction for both cancer quality and surveillance registries
- We need to figure out how to get more granular data intro registries to help better understand treatment patterns and related outcomes, without increasing the clinical or registrar burden
- We need to populate registries in a more timely fashion using technology, etc
- Align federal agencies around data capture, EHRs, registries CDC, ONC, CMS, NCI, FDA, mCODE/CODEX
- Move to a more coherent data standardization and sharing mechanisms/policies
- Foster public-private partnerships to solve some of these challenges
- Federal legislation to harmonize state legislation that inhibits data usage and sharing
- Re-structure privacy laws that continue to protect privacy but advance the common good.

The Infrastructure and Workforce Supporting Cancer Surveillance

- The cancer registry workforce is evolving as evidenced in the NCRA survey
- Use of CAP Protocols improve patient outcomes, quality, efficiency, and cost
- Workflow relative to pathology/EHR has the potential to transition workforce to concurrent abstraction
- Linkage of registry and electronic health records yield a comprehensive view of patient cancer experience
- Enhanced quality control may be achieved through education and use of machine-learning for data integration; there are clear benefits and challenges associated with linkages
- Structured data elements will shape EHR with value in using AI and ML to extract data from synoptic reports

The Infrastructure and Workforce Supporting Cancer Surveillance

POLICY OPPORTUNITIES TO ADVANCE PROGRESS

- Continued education is necessary to navigate the ever-changing landscape of data capture
- We need to retain and recruit more registry staff highlighting the important work they do with data quality and quality improvement (market the benefits of the ODT profession)
- We need to ensure we count everyone, capturing everyone from rural patients from small hospitals to those treated in hospitals with fewer resources (keeping equity at the forefront)
- Use existing tools and develop new ones to assist registries with case finding could accelerate the reporting process (Epic example)
- Combined structured and unstructured electronic health record data could provide a more complete cancer patient journey, however with linkage challenges to overcome (ADT notifications as a solution)

Policy Opportunities for Advancing Progress

- Lack of interoperability between systems
- Labor intensive with duplicative efforts
- Workforce needs for cancer data analytics
- Multiple data sources, data types, distinct processes
- Lack of real-time resources for patients and families, patient trust
- Lack of real-time, high quality registry data for quality improvement and evaluating care delivery and payment models.
- Challenges with data linkages
 - Restrictions on data use and sharing; de-identification
 - Funding for maintaining and updating linkages
- Sustainability of specimens and registries
- Data protections can limit data sharing without addressing patient privacy
- Ethical challenges and false dichotomies

Panel Discussion on Policy Opportunities for Advancing Progress

POLICY OPPORTUNITIES TO ADVANCE PROGRESS

- Incentivize data integration and interoperability through qualified health information networks
- Mandated reporting electronic cancer pathology data to cancer registries
- Fund collaborations with EHR vendors and registry data
- Investment in Artificial Intelligence/Machine Learning and other novel methods for data capture and transformation
- Facilitate, fund, and maintain data linkages (e.g., Medicare, APCD, genomic data) for longitudinal surveillance of treatment, non-cancer care, and new primaries
- Multi-pronged approaches (e.g., recurrence: NED, progression, recurrence)
 - Synoptic reporting
 - Payor mandates
- Unified data governance
- Workforce education and training
- Model legislation for state data linkages and sharing; removing NIH barriers
- Communication and education
- NAACR as potential convener