



Use Case Title: Cancer Reporting to Public Health

Overview: During a routine primary care visit, Isabel’s physician finds a lump in her breast. A biopsy is taken and sent to the pathology lab for analysis. The results are returned as positive for breast cancer. Pathology results are submitted to the cancer registry along with required provider reporting detailing the cancer case.

Value: Standard transaction and content enables ready access to pathology results for both clinical care and routine reporting to public health. Structured clinical content, including details of the cancer case, can be shared among and between care providers and cancer registries. Improved timely access to consistently structured data enable cancer registries to monitor the population and provides early access to information. For the provider, the same information is used for both clinical care and public health reporting reducing the overhead for required reporting.

Scheduled times: Tuesday: 10:00-10:30
 Tuesday 2:30-3
 Tuesday 5:30-6
 Wednesday 10-10:30
 Wednesday 1-1:30
 VIP Tour: Tuesday 11:30-12



Scenario	Vendor	Products	Standards
<p>Stop 1: Primary Care Provider Electronic Health Record</p> <p>Isabel Strong visits her Primary Care Provider (PCP), who finds a lump in Isabel’s right breast. The PCP performs a diagnostic mammogram and a biopsy of Isabel’s right breast. The PCP places a laboratory order for microscopic evaluation of the biopsy tissue and three biomarker tests: Estrogen Receptor (ER), Progesterone Receptor (PR), and human epidermal growth factor receptor 2 (HER2).</p>	Qvera	QIE	HL7 v2.5.1
<p>Stop 2: Pathology Laboratory</p> <p>The laboratory performs the ordered tests and reports the results back to the PCP and to the state cancer registry.</p>	iConnect Consulting	Lab Web Portal	HL7 v2.5.1 IHE ARPH
<p>Stop 3: Primary Care Provider</p> <p>Based on the biopsy results, the PCP diagnoses Isabel with invasive ductal carcinoma of the upper outer quadrant of the right breast, determines that it is stage IIA, and records this information in the Electronic Health Record</p>	Qvera	QIE	HL7 v2.5.1 IHE ARPH SDC

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<p>(EHR). The EHR automatically generates a cancer report and transmits it to the state cancer registry, using the ONC 2014 capability for transmission to cancer registries. The pathologist completes the College of American Pathologists (CAP) electronic Cancer Checklist (eCC) breast biomarker form designed for structured data capture for the breast biomarker results.</p> <p>Stop 3: Oncologist Electronic Health Record—Qvera</p> <p>The PCP refers Isabel to a surgeon for a mastectomy and to an oncologist for additional treatment. The oncologist administers chemotherapy to Isabel and documents the treatment information in the EHR. The EHR automatically generates an updated cancer report, which includes the treatment information, and transmits it to the state cancer registry.</p>			PRPHca IHE XDR
<p>Stop 4: Public Health Infrastructure</p> <p>The breast biomarker form is retrieved from the public health infrastructure Form Manager by PCP and pre-populated with information available from the laboratory results. The completed form is submitted to the state cancer registry through the Form Manager.</p>	InteropX, LLC	InteropX-DR	SDC
<p>Stop 5: State Cancer Registry</p> <p>The State Cancer Registry receives laboratory and case reports and uses the data to monitor the community health, guide planning and evaluation of cancer control programs, help set priorities for allocating health resources, and advance clinical, epidemiologic, and health services research. The State Cancer Registry system performs validity and consistency checks on the data. The Registry's Certified Tumor Registrar resolves any discrepancies and the final information is stored in the Cancer Registry System. The Cancer Registry System submits de-identified data to the Centers for Disease Control and Prevention (CDC). CDC receives de-identified data from states and performs statistical analysis from the national perspective.</p>	CDC	NPCR	IHE XDR SDC PRPHca IHE ARPH

Data exchange standards:

- **HL7 Implementation Guide for Ambulatory Healthcare Provider Reporting to Central Cancer Registries** (Online at https://www.cdc.gov/phn/resources/guides/documents/implementation_guide_for_ambulatory_healthcare_provider_reporting_to_central_cancer_registries_august_2012.pdf)
- **IHE IT Infrastructure Technical Framework: Profile for Structured Data Capture (SDC)** (Online at https://www.ihe.net/uploadedFiles/Documents/QRPH/IHE_QRPH_Suppl_SDC.pdf)
- **IHE IT Infrastructure Technical Framework: Profile for Cross-enterprise Document Reliable Interchange (XDR)** (Online at http://ihe.net/uploadedFiles/Documents/ITI/IHE_ITI_TF_Vol2b.pdf)
- **IHE Anatomic Pathology Technical Framework: Profile for Anatomic Reporting to Public Health (ARPH)** (Online at https://www.ihe.net/Technical_Framework/upload/IHE_PAT_Suppl_ARPH_Rev2-0_TI_2010-07-23.pdf)
- **HL7 Messaging Standard Version 2.5.1 (HL7 v2.5.1)** (Online at http://www.hl7.org/implement/standards/product_brief.cfm?product_id=144)