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**DECISION PRECISION+: ENABLING LUNG CANCER SCREENING SHARED  
DECISION MAKING INTEGRATED WITH THE ELECTRONIC HEALTH RECORD**

**Isaac Warner (Kensaku Kawamoto)  
Department of Biomedical Informatics**

Lung cancer is the leading cause of cancer deaths worldwide. Screening with a low dose chest CT could save more lives than breast cancer screening, however the current screening rates are at about 5%. An important barrier to improving these rates is the need for individualized shared decision making. A tool to help providers with this shared decision making process, Decision Precision has been developed by collaborators at the University of Michigan, available at ScreenLC.com. We extended this tool by using state-of-the-art prediction models from the National Cancer Institute, as well as integrating it with the Electronic Health Record (EHR). This tool, Decision Precision+, by integrating directly with tools that providers already use, will enable efficient shared decision making for a complex clinical decision in primary care. This has been identified as a key research need by the US Preventive Services Task Force. We have successfully integrated this tool with the EHR using the SMART on FHIR interoperability framework, deployed it into clinical care at University of Utah Health, and it will be disseminated nationwide across the customer base of Epic Systems, which manages the records of over half the US population. Decision Precision+ will be one of the first SMART on FHIR clinical applications to be widely distributed across the nation. Performance improvements have been made to the application which have decreased the load and rendering time to approximately 3 seconds, which represents about 100% improvement over the initial version. Interface errors have also been reduced, which have improved the overall user experience. These time-saving features are critical for providers, who have limited time during busy encounters. Other improvements to the code base have been made, including reducing code duplication, allowing for a faster development cycle and application validation.