have an enormous impact on the people, processes, and technology throughout KP and other Health Care Organizations. ICD-9 is running out of codes. Hundreds of new diagnosis codes are submitted annually. ICD-10 will allow not only for more codes, but also for greater specificity and thus better epidemiological tracking. How will this change impact data? Where do analysts find the new codes and what process should they follow to get ready for this conversion. What Clarity tables and columns will carry the new codes and how should the mapping be done? This presentation will provide tools for the programmers and guide them to make this conversion less painful.

Keywords: High-Level Overview of ICD-10; Difference between ICD-9-CM and ICD-10-CM; Health Informatics

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PS1-44:

Experiences in Designing a Simple Education Interface for Shared Decision Support for Cardiovascular Risk

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Background/Aims: Shared decision making (SDM) tools are advantageous to support clinical decisions consistent with patient values and preferences. Numerous tools that convey cardiovascular risk have been developed and tested while showing mixed results. **Aims:** To develop and assess a simple SDM tool that helps patients identify and prioritize lifestyle or pharmacological actions that will most effectively reduce their cardiovascular (CV) risk.

Methods: A prototype patient SDM tool developed for point of care use is presented to the patient as a companion piece that is congruent with a physician clinical decision support tool called CV Wizard. The patient tool was designed to convey clear, succinct and personalized information about blood pressure, lipids, blood sugar, weight, smoking, and aspirin use. Reversible CV risk associated with each of these risk factors is conveyed using a combination of symbols and text accommodating a range of patient educational and literacy levels. The patient tool was presented to the HealthPartners Patient Council (HPC), the patient education specialist and a number of physician and leadership groups for feedback on content and design. **Results:** The HPC found the initial version confusing. They wanted more specific information on the values of their current CV risk factors and preferred the more complex tool like the CV Wizard physician tool because of its quantitative detail on reversible CV risk and pharmacologic recommendations. However, they did acknowledge that not every patient would understand that level of detail. They noted that dialogue between the patient and the physician in conjunction with the tool was more important than the tool itself. Others thought the tool was a good start with minor modifications suggested. **Conclusion:** The HPC preferred more specific CV risk factor values and recommendations than were included on the low literacy, or simple tool we presented. Tools that are tailored or able to accommodate a wide range of educational and literacy levels may be desirable to facilitate provider-patient shared decision making discussions. The version of the patient tool discussed here will be implemented in summer of 2012.

Keywords: Shared Decision Support; Cardiovascular Risk; Health Informatics

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PS1-45:

Evaluating the Quality of VDW Pharmacy Data

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Background/Aims: The HMO Research Network (HMORN) Virtual Data Warehouse (VDW) is a series of dataset standards and automated processes that aim to streamline the process of multi-site research. The Pharmacy file contains data on all outpatient dispensings captured within the HMORN. The

objective was to assess the overall quality and completeness of the Pharmacy file. **Methods:** The VDW Pharmacy Working Group created a data verification protocol to assess the overall quality and completeness of Pharmacy file data (e.g., to identify missing data or out-of-range values). A distributed SAS program was run at each HMORN site that maintains a VDW Pharmacy file (n=14 of 19 HMORN sites), and de-identified summary data were returned for analysis. Pharmacy file variables that were assessed included National Drug Code (NDC), days supplied, amount dispensed, and prescribing physician (which joins to the VDW Provider Specialty file). An "invalid" NDC was defined as any value not having exactly 11 digits or containing a non-numeric character. The days supplied variable was considered out-of-range if the value was < 0, = 500, or missing. Amount dispensed was defined as out-of-range for values < 0, = 1000, or missing.

Results: Fourteen HMORN sites had Pharmacy data from 2000-2009 and participated in this analysis; some sites had > 20 years of data. There were 93.4 million dispensings in 2009, with an average of 7.8 million dispensings per month among 3.1 million monthly users (average per user: 2.6 dispensings per month; range across sites 2.3-5.8). Across all sites from 2000-2009, 0.082% (712,131/870,182,026) and 0.072% (629,656/870,182,026) of dispensings had missing or "invalid" NDCs, respectively; and 0.083% (724,210/870,182,026) and 0.315% (2,736,756/870,182,026) had out-of-range days supplied and amount supplied, respectively. The prescribing physician was identified in 96% (1,038,725,660/1,079,370,265) of all dispensings. The prescriber's specialty was identified in 62% (539,944,688/870,182,078) of dispensings overall and improved from 61% (46,678,731/77,078,104) in 2000 to 63% (60,160,629/95,867,812) in 2009. **Discussion:** The VDW Pharmacy file has excellent overall data quality results, and has improved in identification of prescriber specialty. It has measurably comprehensive and consistent outpatient dispensing data across 14 HMORN sites.

Keywords: Electronic Record Data; Pharmacy Dispensing; Health Informatics

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PS1-46:

HMORNnet: Shared Infrastructure for Distributed Querying by HMORN Collaboratives

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Background/Aims: The HMO Research Network (HMORN) is at the forefront of the development and operation of distributed research networks for secondary use of routinely collected health information. PopMedNet™ is a distributed querying platform developed by HMORN investigators to meet HMORN and other large-scale distributed networks needs. PopMedNet is serving as the distributed querying platform for several large multi-site projects, including the FDA Mini-Sentinel and the Scalable PArtnering Network for CER: Across Lifespan, Conditions, and Settings. The substantial overhead costs associated with use of PopMedNet for HMORN activities would be best shared across projects. The ability to share secure infrastructure while maintaining compliance with national security and privacy standards such as those embodied in the Federal Information Security Management Act and those required by HMORN health plans was uncertain. **Objectives:** Investigate the viability for creating HMORNnet, a secure architecture for implementing a single shared distributed querying infrastructure based on the PopMedNet platform that meets the privacy, proprietary, security, and research integrity demands of HMORN projects. **Methods:** A three stage evaluation approach was undertaken in which (1) business requirements were specified that would allow multiple HMORN projects to share a single secure hosting environment, (2) software architecture was developed to meet the business requirements, and (3) an investigation was conducted to determine if the approach meets security requirements. **Results:** The business requirements specified a shared hosting environment that would: (1) meet federal security standards, (2) allow networks to implement their own governance policies, (3) allow cross-network meta-data searches and activity audits, (4) permit a single sign-on capability to facilitate multiple network activity, and (5) allow sharing of hosting costs across projects. The architecture meets all the specified business requirements while maintaining