

approach is used to analyze the data. Approval for the study is received from the Center's Human Subject Review Office. **Results:** Preliminary results indicate an urgent need to resolve care fragmentation, and concepts of coordination and integration of care being interrelated and partially overlapping. By identifying a plethora of factors and stakeholders involved, the complexity of resolving care fragmentation gets revealed. Diversity is reflected by the type of indicators being identified to measure the impact of coordination or integration on care. **Conclusions:** Final conclusions will be drawn after completion of the data analysis and available in April 2009. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and should not be attributed to The Commonwealth Fund or its directors, officers, or staff.

PS1-15:

What has the HMO Research Network Done for You, Lately? How the Network is Responding to Investigators' Needs

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In late 2007, HMORN leaders surveyed investigators to learn how to better foster and support multi-site projects. This poster recaps survey results, reviews 2008 progress to address findings, and summarizes ongoing efforts. **Methods:** The 2007 HMORN investigators' survey was anonymously administered via www.surveymonkey.com. Directors emailed the survey link to their faculty, including one email reminder. A total of 279 surveys were reportedly distributed. **2007 Survey Results:** Surveys were completed by 161 investigators (58%) from 14 of 15 Centers. Full/senior Investigators represented 49% of responders, 19% were associate and 24% assistant level researchers. Years of experience averaged 15. The top 5 features investigators identified that would make multi-site research more attractive were: ways to find and connect with colleagues (32%); central or streamlined IRB (12%); more opportunities and better dissemination of them (11%); coordinated budget development and grant administration (10%); boilerplate, website, guides, clear processes (9%). Investigators also shared the top five ways the HMORN could assist investigators. These were: PI directory with bios, virtual scientific interest groups, streamlined grants and contracts administration, web based guides and resources and improved communications. **2008 Progress Made:** The Network responded to investigator priorities in 2008 in a number of ways, and there are now many more resources available than when the survey was conducted. A directory of Investigators by site and research interests is now on the HMORN website with links to biographical information on external Center websites. Search features will be added to the PI Directory in 2009. An SOP for streamlined, facilitated IRB review of low-risk, data only studies was adopted across the Network. Templates for coordinating budget and grant development are available as well as a variety of boilerplate, guides, toolkits and best practices. The Network is working to finalize template subcontract and data use agreements and expand functionality of the Network's website. To support and maintain all of this, every HMORN Center has made a financial commitment to the Network, beginning in 2009. **Next Steps:** With the funding of the 2009 HMORN Operating Budget, the Network is continuing to implement improvements to the website, administrative resources, VDW, communications and more.

PS1-21:

Evaluation of Commercial Workflow Engine for Modeling Clinical Processes in Quality Improvement and Decision Support

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Background: Workflow technology (WT) is a new emerging technology which offers support for modeling, execution and analysis of processes within information systems. WT has been successfully implemented in many industries resulting in increased efficiency and decreased variability and costs. Similar potential exists in healthcare; however the penetration of this technology, according to Gartner, is less than 5%. Marshfield Clinic is

considering integration of a workflow technology within their electronic health record system to enable user friendly creation and customization of numerous EHR features. **Methods:** We have evaluated the suitability of a commercially available workflow editor and engine for modeling clinical processes. The evaluated editor was used to model several sample processes (e.g., osteoporosis QI process and laboratory monitoring processes). Robustness of the features was evaluated with three target users in mind: programmer, designated workflow process engineer, and champion clinician. Compliance with the XPDL standard (XML process definition language) was also evaluated. Modeled sample processes were then loaded into the tested workflow engine and support for process deployment and execution was evaluated (specifically ability to interface with external databases, web services and legacy systems). We have also briefly evaluated modules for process analysis and discovery (ability to mine process definition from existing healthcare event logs). **Results:** We have successfully installed both the workflow editor and engine of a chosen commercial WT Vendor and were able to execute several example processes. The installation of the engine required some assistance from the vendor. The evaluated workflow editor did not provide a separate perspective for a non-expert in WT (e.g., champion clinician) and lacked several graphical and modeling features. The tested editor did use XPDL as the underlying standard, however make heavy use of external attributes which is a special part of the standard for vendor specific features. Deployment of interfacing processes required repeated assistance from the vendor and a few duplicate steps in the editor and the workflow engine. **Conclusion:** Marshfield Clinic is one of the very few healthcare institutions pioneering the integration of workflow technology with an EHR system. Our results were shared with the vendor and further collaboration talks are planned.

PS1-25:

Patient Outcomes in Systemic Lupus Erythematosus: A Collaborative Study Fostered by a New CTSA-based Partnership

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Introduction: This project catalyzes a strategic partnership between Marshfield Clinic Research Foundation (MCRF) and the University of Wisconsin (UW), supported by an NIH Clinical and Translational Science Award (CTSA), to explore outcomes of systemic lupus erythematosus (SLE) in a community setting. The study pairs pilot funding and study staff from MCRF with a KL2 scholar/rheumatologist from the UW Institute for Clinical and Translational Research (ICTR). The project also uses ICTR-supported core resources at MCRF (Marshfield Epidemiologic Study Area [MESA]) and at UW (biostatistical support). **Background:** Survival among SLE patients has improved in recent decades, although studies continue to demonstrate excess mortality and cardiovascular disease. Whereas typical SLE studies represent urban tertiary referral populations, this study explores a community base, where the presence and extent of any mortality or cardiovascular excess is not clearly established. A past study described the spectrum of SLE in MESA from 1991-2001, finding cases were older, were less predominantly female, and had milder disease than in published reports from tertiary referral centers. **Methods:** Incident cases from 2002-2007 in this rural, population-based cohort are being ascertained and validated using the same American College of Rheumatology diagnostic criteria as the previous study. All incident cases 1991-2007 are being followed longitudinally to examine rates of all-cause and cardiovascular mortality, and of non-fatal cardiovascular events including MI, stroke, or heart failure hospitalization. Outcomes are to be compared with a matched set of MESA cohort members without SLE. **Results/Conclusions:** Automated data queries identified 167 new potential cases of SLE. After applying proportions of invalidation and non-incidence from the previous study, we estimate there will be an additional 31 incident cases from 2002-2007 to join the 44 cases previously identified. This represents one of only two rural US-based SLE cohorts with reported mortality outcomes. We anticipate that study results will support future funded research opportunities to ultimately inform evidence-based prevention strategies for SLE patients in real-world community practice.