under-coded. Clinician notes offer an alternative source for identifying depression. Natural language processing tools can be used to enhance case identification where clinician notes are available in electronic form. **Methods:** The sample was comprised of 2680 health plan enrollees that had received a new diabetes diagnosis within the previous two years. Using phrases that included the embedded term 'depress', two reviewers coded all cases with an appropriate indication of depression, excluding inappropriate uses of the term ('denies depression'; 'depressed fracture'; 'no history of depression'). On cases where there was disagreement, the two reviewers looked at the full note to determine the appropriate decision. The depression cases identified through the administrative database were compared to those identified through NLP in terms of clinical and demographic characteristics. **Results:** Of the 2680 incident diabetes patients, 260 (10%) were identified through both methods, and an additional 141 were identified with depression through NLP only. There were 37 depression cases identified through administrative codes with no NLP evidence of depression. There were no significant differences between NLP versus administrative data criteria in terms of gender, age, comorbidity, or A1c of those identified with depression. However, patients identified through the administrative system had more primary care visits and had longer continuous enrollment in the health plan. **Conclusions:** Use of NLP increased numbers of identified depression cases by almost a third. The NLP tool provides an efficient way to enhance the identification of depression cases, both for research and population-based quality improvement efforts. As more and more medical providers establish paperless offices, NLP will be an increasingly useful and efficient tool that can be used by both clinicians and researchers for a variety of purposes. This study was funded by NIH/NIDDK: Grant #DK066050.

Quality Improvement

Abstract C-C2-01

Guided Care: The Translation of Research Into Cost-Effective Primary Care for Persons With Chronic Conditions

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Background: 'Guided Care' (GC) is primary care into which several successful innovations in chronic care have been translated, in accord with the 'chronic care model.' This study examines the effect of GC on the quality of medically complex older adults' health care. A registered nurse based in a primary care practice and supported by a web-accessible, evidence-based electronic health record, works closely with 2-4 physicians in caring for 50-60 of their multi-morbid older patients. For each patient the nurse performs a comprehensive assessment at home and then collaborates with the physician, the patient and the caregiver to customize an evidence-based 'Care Guide' for healthcare professionals and a personal health 'Action Plan' for the patient and caregiver. Thereafter, the nurse monitors the patient's chronic conditions proactively, coaches the patient in self-management, smoothes transitions between settings of care, coordinates multiple providers, educates and supports caregivers, and facilitates access to community resources. **Methods:** Using claims-based predictive modeling, we identified the top 25% chronically ill older patients at highest risk for health care utilization in the subsequent year within three Kaiser Permanente practices. A total of six primary care teams representing 20 primary care physicians and 403 of their patients consented to participate in the trial of which three teams were randomized to receive a GC nurse. We assessed quality of care after 6 months using the Patient Assessment of Chronic Illness Care (PACIC), an instrument which measures self-reported quality of care in five domains. **Results:** Eighty-six percent of GC patients (n=204) and controls (n=199) responded to baseline and follow-up interviews. Patients receiving GC were two times more likely to rate the quality of their care as 'highest quality' compared to patients in the control group after adjusting for baseline sociodemographic characteristics, health status, functional ability, practice site, satisfaction with healthcare and PACIC score (OR, 1.99, P=0.054). GC patients had a significantly higher rating of care within the following domains: goal setting (OR, 2.55, P=0.003), coordination of care (OR, 3.09, P=0.006), and decision support (OR, 1.73, P=0.026). **Conclusion:** Preliminary results suggest GC improves the quality of care for complex, chronically ill older adults.

Abstract C-C2-02

iList (Intervention List) – Planning Care for a Large Population

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Background: Improvement of diabetes care for a population of 17,993 has been a system-wide initiative since 2004. Multiple strategies have been implemented to meet this aim. The Intervention List, also known as iList, is a software application that was introduced to help physicians and staff plan interventions at the individual patient level to improve care. iList contains lists of patients with diabetes who are not meeting quality metrics and may lack a follow-up appointment. **Methods:** Algorithms to identify high-risk patients who are not at goal for diabetes quality metrics and link them to personal care providers were developed by the Data Warehouse. iList was deployed to all primary care practices in the system. Standing orders were developed for staff to use in conjunction with iList to schedule necessary test or office visits. Training was held to assist staff and physicians in improving care through iList, a defect recovery list. In addition, the process of diabetic foot exams was standardized and support staff was trained to perform foot exams. **Results:** Significant improvement in diabetes care has been demonstrated by the improvement in the composite diabetes process and outcome measures. The percent of patients who have met all diabetes process measures has increased from 13.4% prior to iList implementation to 42.4%. The percent of patients who have met all diabetes outcome measures has increased from 10.1% to 19.1%. **Conclusions:** iList has helped physicians and staff to attach names to those patients in their practice who are not meeting all of the quality metrics and take action to improve care where there may be gaps. Awareness of the need to plan chronic care is not necessarily self evident and education of providers and staff has been helpful. Planning care builds trust with patients. Use of the application has emphasized the staffs' ability to help patients improve their health. Standing orders have facilitated the process of planning care. Planning care saves time and physicians recognize the efficiencies. Adaptive change needs to accompany technical change for successful implementation.

Abstract C-C2-05

Taking Advantage of Natural Experiments for Implementation Research: a DIAMOND Opportunity

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Background: Faced with the challenge of how research can help medical care cross the quality chasm separating what we think we know and what we actually do, new approaches and designs for research are needed. We especially need research that helps us understand problems in implementation and how to improve care. Since care and financing changes occur at an increasingly rapid pace, they provide huge opportunities for learning if we can only build and fund appropriate parallel research studies. This paper will describe such a study of a major statewide initiative to change the financing and care for depression in Minnesota. **Methods:** The DIAMOND (Depression Improvement Across Minnesota – Offering a New Direction) study proposal was developed in conjunction with a similarly named collaborative plan for changing the way all health plans and the state paid for primary care of depression and for facilitating care changes that would implement evidence-based care. The implementation was planned in a way that would be most feasible for stakeholders while also being compatible with a sophisticated quasi-experimental research design that involved staggered implementation with multiple baseline measures of practice systems, care processes, and patient outcomes. It also featured evaluation of changes in worker productivity and in healthcare utilization/costs while also measuring the extent of penetration through the RE-AIM framework (Reach, Effectiveness, Adoption, Implementation, and Maintenance). **Results:** The research proposal to NIMH