THE MISSOURI QUALITY INITIATIVE FOR NURSING HOMES (MOQI)
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On March 15, 2012, the US Department of Health and Human Services Centers for Medicare and Medicaid Services (CMS) Innovations and Medicare-Medicaid Coordination Office released a funding opportunity (FOA), *Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents*, asking groups like ours to test an intervention for long-stay Medicare-Medicaid enrollees in our state to:

- Reduce the frequency of avoidable hospital admissions and readmissions;
- Improve resident health outcomes;
- Improve the process of transitioning between inpatient hospitals and nursing homes (NHs) and;
- Reduce overall healthcare spending without restricting access to care or choice of providers.

THE INTERVENTION HAD TO INCLUDE THESE KEY ACTIVITIES

Partner with NH staff in good quality facilities to implement preventive services and improve recognition, assessment, and management of conditions that are *common causes of avoidable hospitalizations*:

- Work in cooperation with existing providers, NH staff, and families to implement best practices and improve the overall quality of nursing facility care…
- Facilitate residents' transitions to and from inpatient hospitals and NHs, including *facilitating timely and complete exchange of health information among providers…*
- Provide the information technology to support for *improved communication and coordination* among hospital staff, NH staff, primary care providers and others…
- Coordinate and improve management and monitoring of prescription drugs to *reduce risk of polypharmacy and adverse drug events for residents…*

MISSOURI QUALITY INITIATIVE (MOQI) PHASE I (2012-2016)

KEY FEATURES AND RESULTS

- Full time Advanced Practice Registered Nurses (APRNs) in sixteen (16) NHs to promote early interventions for residents with declining health conditions
- Multidisciplinary Intervention Team, focus on implementing INTERACT, end of life care, health information technology (HIT), and quality improvement using performance feedback reports
- *Reduced potentially avoidable hospitalizations (2014-2016) by 50% and all cause hospitalizations by 32%*[1]
- 56.0% reduction in potentially avoidable ED visits and 41.7% reduction in all-cause ED visits[1]
- *Reduced Medicare expenditures (2014-2016) per resident per year by 40.2% for potentially avoidable hospitalizations; 28.6% for all-cause hospitalizations;* 36.3% for all-cause ED visits; 42.8% for potentially avoidable ED visits; and 6.3% for all Medicare services[1]

Missouri was one of 7 national sites in Phase 1 (2012-2016) and one of 6 sites in Phase 2 (2016-2020). ***The MOQI intervention was the most effective of the models tested in Phase 1 of the CMS Initiative.***[2, 3]

WHY APRNS (ADVANCE PRACTICE REGISTERED NURSES) ARE EFFECTIVE IN NHS IN MOQI

- Major focus is not primary care, but improving illness recognition of all staff and improving care delivery systems to prevent dehydration, promote activity, nutrition, communication, help agree on goals of care
- Role model evidence-based care to facility nursing staff for effective recognition, assessment, and communication about residents' change in condition to Primary Care Providers
- APRNs support the use of INTERACT and quality improvement to reduce unnecessary hospital transfers
- Promote medication review, end-of-life planning, communication, and HIT use
- Supported by MOQI Multidisciplinary Team (HIT, QI, SW, Med Director) and feedback reports

MISSOURI QUALITY INITIATIVE (MOQI) PHASE 2—PAYMENT REFORM (2016-2020)

Phase 2 tested a new payment model to encourage caring for acutely ill NH residents within facilities to reduce avoidable hospitalizations.

- $19.8 Million grant awarded in March 2016 from the **CMS Innovations and Medicare-Medicaid Coordination Office**
- The new payment intervention and continuation of APRNs working full time in the **16 Phase 1 Missouri NHs** (referred to as **Group B in Phase 2**)
- **Phase 2 added another 24 nursing homes** (**Group A**) where the MOQI intervention was NOT implemented to evaluate the effect of the payment model only

CONCLUSIONS

The Phase 2 Payment Intervention **did *not* have the intended effect in either Group**. Hospitalizations nor costs were reduced as intended.[17]

Group B (16 NHs with APRNs and MOQI support team in Phase, then Phase 2 with Payment Intervention). ***The MOQI Initiative was successful in sustaining improvements (reducing hospitalizations) gained in Phase 1 throughout Phase 2 in the participating 16 Group B NHs.***[14] Embedding full time APRNs in NHs has clear advantages of improving quality,[8] reducing avoidable hospitalizations by 55-60%[1, 3, 4] and sustaining those reductions[15] as measured throughout the duration of both Phases 1 and 2 of MOQI.

Additionally, in Group B, there were significant cost savings using the methods of MOQI. In a cost analysis of the Group B homes, ***each home averaged revenue recapture valued at $500,000 per year per* 200 beds.**[16] **The Payment Intervention of Phase 2 did *not* have an effect in Group B.**[17]

Group A (24 NHs, Phase 2 Payment Intervention Only) For Phase 2, there were **no significant improvements in reducing hospitalizations in Group A**, the payment only intervention.[17] However, much was learned about necessary efforts to sustain engagement in new payment opportunities for NHs and providers.

Group B NHs, with assistance of full-time APRNs, were able to do timely confirmation of acute changes in condition and provide treatment within the NHs, then bill for those additional treatments. However, the **additional payment did not further reduce hospitalizations** in Group B.[17]

Without the MOQI intervention, despite much billing support team assistance and follow up, Group A homes were unable to bill as consistently as Group B. ***It is highly likely the changes made within the***

payment intervention while delivering the intervention after year 1 (recoupment and guideline changes) resulted in decline in billing for the new payment after strong initial use of the billing opportunity. It is unknown if billing would have continued as strong in subsequent years, as it began in year 1, with an unchanged payment intervention.

As the population of older people increases in the upcoming decades, good solutions are urgently needed to deal with the increasing costs of health care expenditures. The MOQI intervention tested and evaluated in these CMS Innovations Center grants for the *Initiative to Reduce Avoidable Hospitalizations among Nursing Facility Residents* provides such an excellent solution. ***APRNs working with multidisciplinary support teams of social work, HIT, and INTERACT/QI coaches has the potential for large-scale implementation in NHs nationwide.[15,18]***

It is critical for older people living in NHs to have access to care provided by APRNs to help the NH staff to implement and maintain systems of care delivery that can prevent avoidable changes in health status. When there are changes in health status, APRNs can help staff detect those quickly, get interventions in place to restore health, and help people be comfortable at end of life.[4, 10] Analyses are clear: ***there are significant positive effects of APRNs on quality of care,[8] major cost savings to Medicare, and revenue recapture to NHs that implement the MOQI model.[1, 3, 4, 16] Federal regulations need minor adjustments to spread access to APRNs nationwide.[18]*** It is time for all NHs to have full-time access to APRNs.

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Website: https://nursinghomehelp.org/moqi-initiative/

Excellent videos of the key clinical interventions on this site as well as all publications