

EXECUTIVE SUMMARY

Evidence demonstrates that Social Determinants of Health (SDOH), such as housing instability, food insecurity, and exposure to interpersonal violence, drive health care utilization and impact health outcomes. Therefore, the leadership of ImprovingHealth strongly believes that only 20% of health outcomes are determined by medical factors, and that social factors are responsible for 80% of health outcomes.

Six months ago, they mandated that each of their clinical delivery sites screen all Medicare Beneficiaries using the HRSN screening tool. However, the average rate of completed screenings in all sites were as low as 8% of candidates (ranging from <1 to 16%). Using Ishikawa diagram, 6 deficiency aspects of the project have been identified which are likely to be the root cause of this failure: accountability, training, capture, technology, reporting and workflow.

As observed in the on-site visit, the current workflow is inefficient being conducted by team members who are not well trained or educated, lack a leader and fair workload distribution, use only paper forms without clear roles, patient engagement, deadlines, incentives, or motivation. The data is sent to the leadership very late (every 2 months) which prevents their ability to address and manage any deficiencies.

Through design thinking process, a proposed new digital-based workflow is developed. In this workflow, most of the process is done digitally even before the beneficiary arrives the care delivery site. This saves staff's time and effort as well as cost of printing large stacks of inefficient paper forms. Utilising a decision support software for the simple repetitive steps of the process, like scoring and directing, preserves the human effort and time for the more important part of the process that needs empathy and human-to-human interaction. This results in improving care of the patients both clinically and socially. Central leadership timely monitoring helps for early detection and management of issues as well as highlighting the good performance that deserves appreciation of the staff.

Although, the new system could face some barriers such as high financial cost, possible system failure (downtime) and personal resistance to change. Many strategies could be followed to overcome those barriers including -but not limited to-: cost-effective study and evaluation of the software, policies for downtime periods, and Kotler's 8-step model of change, respectively.

To evaluate the success of the new system implementation, many Key Performance Indicators (KPIs) can be suggested, thanks to the digital recording system. These encompass percent of screened patients among Medicaid beneficiaries, level of patient satisfaction, percent of referred patients to community resources who followed the advice, difference in health outcome (resolve of the presenting medical complaint) between patients who received social support and those who did not follow the advice.

To conclude, based on health informatics principles, several deficiencies in the current HRSN screening process have been identified. These deficiencies have resulted in a low screening rate, which has limited the ability of the organization to address the SDOH that are impacting the health of their patients. A new digital-based workflow has been proposed to address these deficiencies. The new workflow would save staff time and effort, improve patient engagement, and allow for more timely monitoring of the screening process. The success of the new workflow can be evaluated using several key performance indicators (KPIs). The implementation of the new workflow would represent a significant improvement in the ability of ImprovingHealth to address the SDOH that are impacting the health of their patients.

