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In spring 2018, the Centers for Disease Control released a call to action to address health disparities among Americans with diabetes, heart disease, and stroke through CDC-1815. In response, the South Dakota State University College of Pharmacy and Allied Health Professions and the South Dakota Department of Health collaborated to create a five-year plan to identify barriers and develop viable solutions to improve the care of South Dakotans with diabetes and cardiovascular disease (CVD). A key focus area is the expansion of the role of the pharmacist as a key member of the healthcare team as it relates to medication therapy management (MTM) and pharmacy's role in patient care.

In Year One, a landscape analysis was conducted to gain a better understanding of the current status of disease management and identifying gaps and facilitators in care. The project included three stakeholders: practitioners, patients, and payers/others. Elicitation interviews (EIs) and focus groups (FGs) were conducted for each of the stakeholder groups. Participants in the patient group were recruited with advertisements placed in newspapers, posters, social media, and by word-of-mouth. Practitioners were actively recruited by contracting with outside organizations that identified practitioners who cared for patients with diabetes and CVD. Those in the practitioner and patient groups were screened to ensure they met the eligibility requirements and then assigned to EI or FG sessions based on their preference. For those in the payers/others group, team members recruited third-party payers, self-insured employers, and other groups that helped facilitate communication, billing, and/or reimbursement for healthcare services. Participants spent 1-3 hours taking part in the project, depending on their assigned group (EI vs. FG). These sessions were audio recorded, transcribed, and qualitatively analyzed.

Between the stakeholder groups, there were 127 participants in the first year, totaling 1000+ pages of transcripts. Participants came from all across South Dakota (SD) and represented various professions, cultures, and backgrounds. In the patient group (n=50), more than half of the participants lived in rural communities, leading to invaluable insights into disease management for rural patients. Patients had a variety of health characteristics that helped to shape the EI and FG sessions into incredible and, at-times, emotional discussions about their healthcare journeys in SD. Patients expressed concern about affording their medications and not having enough education on their chronic diseases. There was also a general consensus and awareness of pharmacists' changing roles, although many of the patients were not fully aware of the services that pharmacists could offer. When presented with information about these services, patients perceived them as extremely valuable and wished they had prior knowledge of them.

In the practitioner group (n=69), participants represented a variety of roles, including pharmacists, dietitians, nurses, physician's assistants, certified nurse practitioners, diabetes educators, and physicians. Participants worked in clinics, in-patient hospitals, health systems, independent pharmacies, and chain community pharmacies. Practitioners were asked about their experiences in caring for patients with diabetes and CVD. Pharmacists were asked about their experience in providing MTM services and other services they offer their patients. Non-pharmacists were asked about their perception of pharmacist services and their role in a patient's health care journey. Overall, non-pharmacists generally were unaware of all the services that pharmacists could offer patients but did

recognize the needed perspective they would add to a patient's healthcare journey. Additionally, these practitioners recognized the need for patients to utilize pharmacy-based services to improve patient outcomes. Most non-pharmacists were unaware of MTM and the benefit it could provide to their patients with chronic diseases. Pharmacists expressed interest in obtaining more education on MTM and helping patients improve their health outcomes. Practitioners identified these practice goals: Improving Star Ratings; Increasing ability to meet needs of low-income patients; Developing new programs; Obtaining larger practice spaces; Increasing usage of diabetes education programs; Increasing MTM completion and medication adherence; Decreasing A1Cs in their patients; and Increasing referrals to weight management. This project will attempt to address these goals in the upcoming years.

The payers/others group (n=8) represented two health plans and an organization that manages a statewide electronic health record database. Participants in this group were asked about billing and reimbursement mechanisms, specifically when it comes to pharmacy services. They were also asked about their perceptions of pharmacists and their ability to play a larger part in a patient's health care journey. Most participants in this group understood the unique role that pharmacists play in a patient's healthcare journey, particularly that they often see patients more frequently than others on the health care team. Participants of the health plan expressed a need for more training on reimbursement practices for pharmacy services, like MTM, and education about pharmacist roles and services. Participants also explained that they can see how pharmacists could begin to take the burden off providers, allowing them more time to spend with patients. The next four years of the project will involve continued engagement of stakeholders, with an effort to onboard additional participants in the payers/others group and practitioner group. Educational efforts will begin in Year Two to increase awareness of services that pharmacists offer among patients as well as efforts to develop programs and trainings with practitioners and the payers/others group, which will leave a lasting impact and benefit SD healthcare for years to come.

There continues to be lack of awareness of MTM, pharmacy-based services, and the enhanced role that pharmacists could play within the healthcare system. This unawareness was present among participants in all groups of the project. However, upon providing additional information about these services and the various roles pharmacists play across different settings, there was a general consensus that pharmacy-based services would be a welcomed addition to chronic disease management. SD pharmacists have the potential to improve access to care by providing medication-related services, which have shown to improve patient outcomes, quality of care, and improve return on investment (12:1 and in some cases, well beyond). Services such as medication reconciliation, adherence packaging, medication synchronization allow pharmacists to utilize their skills to take some burden off practitioners. By providing practitioners guidance on cost-effective medication therapy options and recommendations on drug therapy protocols through collaborative practice agreements with physicians, pharmacists can play a key role in improving star ratings and enhancing practitioner well-being. South Dakotans with chronic conditions are vulnerable to poor health outcomes, decreased quality of life, and expensive hospitalizations, this project hopes to change all of that by working to increase awareness, improve practitioner well-being, and enhancing the utilization of pharmacy-based services throughout the state.