



SOUTH DAKOTA  
STATE UNIVERSITY

College of Pharmacy and  
Allied Health Professions



# Improving the Health of South Dakotans through the Prevention and Management of Diabetes & Cardiovascular Disease (CVD): A Landscape Analysis-The Patient Journey

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## INTRODUCTION

### DIABETES IN SOUTH DAKOTA (SD)

- 11.6% of the adult population has diabetes.<sup>1</sup>
- Approximately 5,000 people are diagnosed yearly.<sup>1</sup>

### CARDIOVASCULAR DISEASE IN SD

- 21.4% of all deaths were due to heart disease.<sup>2</sup>

### CURRENT SD LANDSCAPE

- The South Dakota Department of Health (SD DOH) works with partners to provide evidence-based programs for chronic disease management.<sup>3</sup>
- Additionally, medication therapy management (MTM) is one pharmacy-based service that pharmacists can provide to improve chronic disease management for patients. Despite the presence of these programs and access to pharmacy-based services, both are vastly underutilized by South Dakotans.
- Due to the low utilization of these programs and services by South Dakotans with chronic diseases, a further examination was warranted to determine why patients are not accessing services that could improve their chronic disease management.
- This poster highlights the landscape analysis that took place in the first year of a five-year project focused on improving the health of South Dakotans with CVD and diabetes.

## OBJECTIVE

- Map the health care journey of South Dakotans with CVD and diabetes
- Identify barriers and facilitators to disease management

## REFERENCES

1. The Burden of Diabetes in South Dakota. American Diabetes Association. 2019. Accessed 18 Dec 2019.
2. South Dakota Fact Sheet. American Heart Association. 2017. Accessed 18 Dec 2019.
3. Good & Healthy South Dakota. <https://goodandhealthysd.org/communities/betterchoicesbetterhealth/>. Accessed 16 Dec 2019.
4. Zgibro, J, Songer, T. External Barriers to Diabetes Care: Addressing Personal and Health Systems Issues. *Diabetes Spectrum*. 2001;14(1):e23-28.

## METHODS

### SAMPLE

Recruitment methods consisted of flyers, social media ads, newspaper ads, and word-of-mouth.

#### Participants were:

- Adults living in SD
- Diagnosed with diabetes and/or CVD
- Willing to share thoughts one-on-one or in a group setting

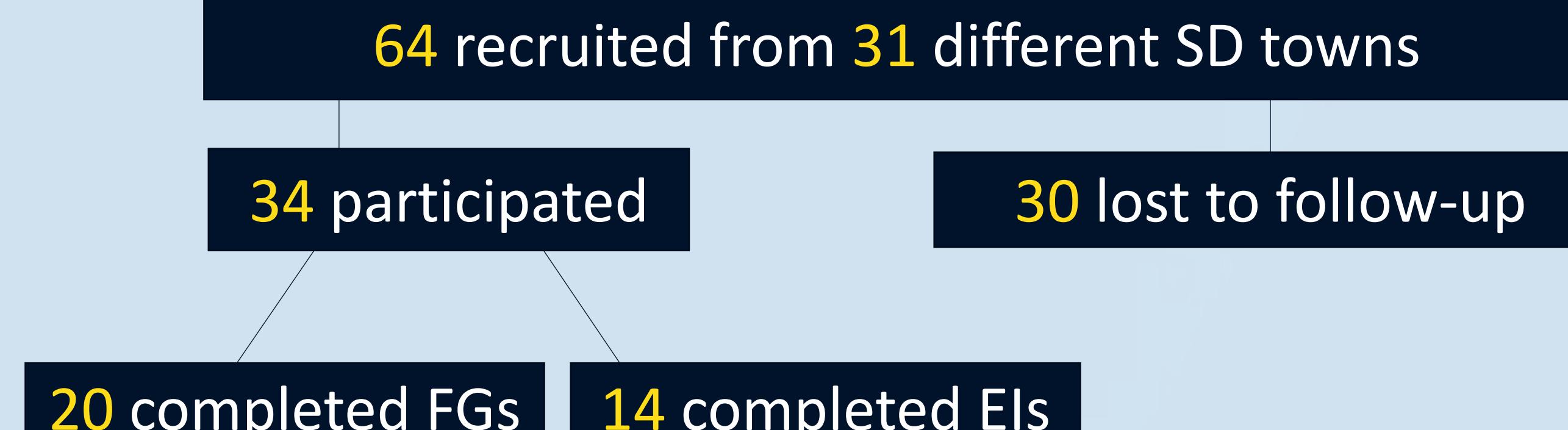
### DATA COLLECTION

- Semi-structured 1.5-hour one-on-one elicitation interviews (EIs) or 3-hour focus group (FG) sessions
- Open-ended questions specific to the participant's journey with diagnosis, treatment, and communication
- Example questions:
  - "What brought you into the doctor?"
  - "How did your healthcare providers communicate with you?"
  - "How is managing your diagnosis now?"
- Interviews were audio-recorded and transcribed verbatim
- Data collected during a 3-month period in 2019

### DATA ANALYSIS

- A qualitative content analysis using NVivo
- Descriptive statistics performed in Microsoft Excel

## RESULTS

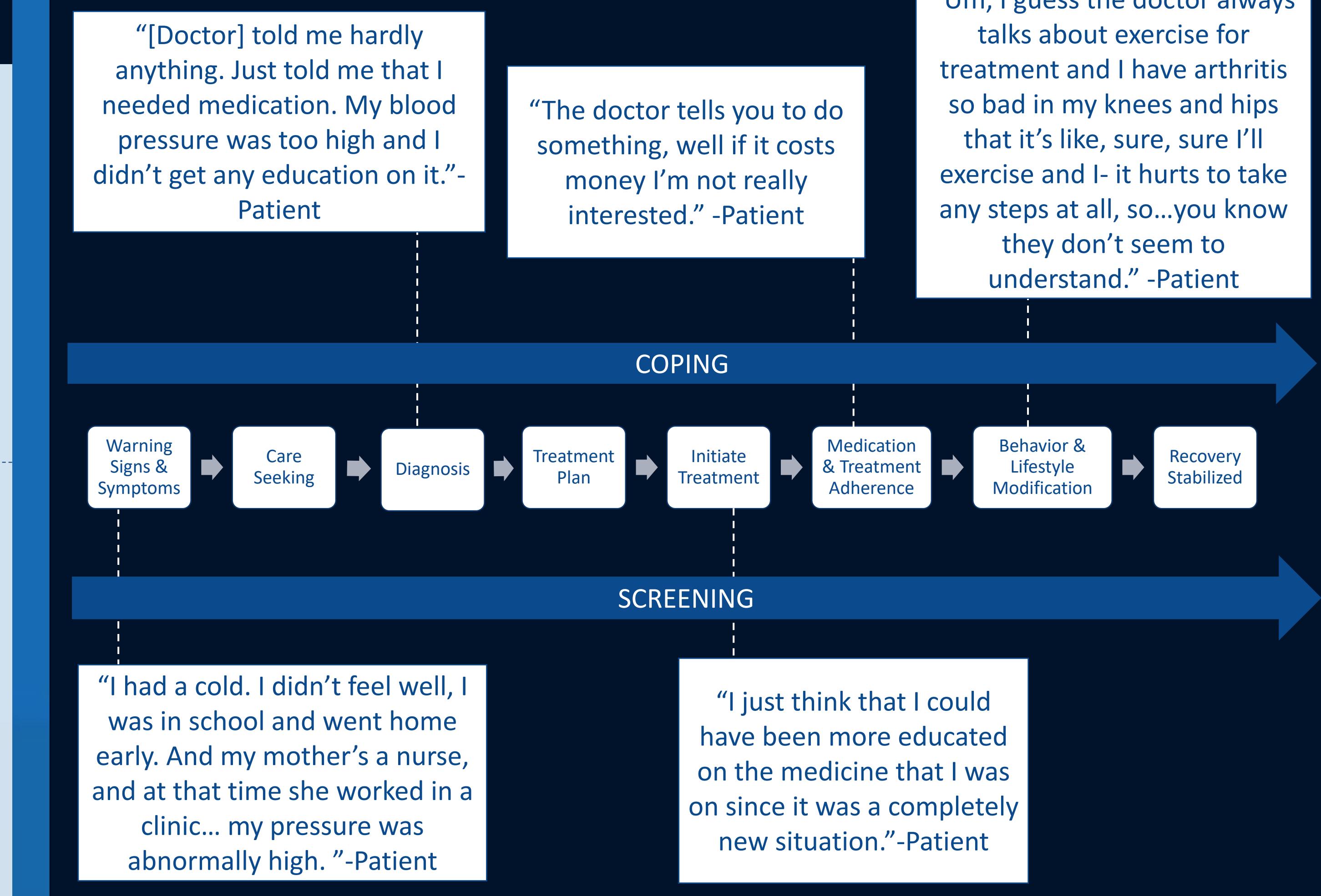


- Participants represented rural and urban areas of South Dakota
- Eight distinct stages of health care journey identified (Figure 1)
- Low comprehension of pharmacy-based services
- Barriers to care identified:
  - Time to diagnosis
  - Limited education received
  - Medication access
  - Medication adherence
  - Changes to lifestyle
- Facilitators to care identified:
  - Relationship with pharmacist
  - Trust in pharmacist
  - Accessibility of pharmacist

Characteristics	n
Reported diagnosis of diabetes	40
Taking medications for diabetes	40
Diagnosed with high blood pressure	35
Taking medications for high blood pressure	32
Diagnosed with high cholesterol	22
Taking medications for high cholesterol	20
Reported history of stroke(s)	2
Reported history of heart attack(s)	5

Table 1: Characteristics of recruited participants

Figure 1: Participant healthcare journey



## DISCUSSION & IMPLICATIONS

- Results consistent with findings in other states<sup>4</sup>
- With guidance from pharmacists, patients can be empowered to regain control of their health
- Future project activities will aim to reduce barriers identified
- Next steps:
  - Statewide patient awareness campaign
  - Increase availability of pharmacy-based services
  - Patient education on pharmacy-based services
  - Measure economic, clinical, and humanistic outcomes of patients receiving MTM