Improvement Project Name: Rockbridge Health COVID-19 Screening Protocol Improvement Project

*Will attach the varying forms implemented when submitting online project and CDC facilities screening form used as a template.

(1) What problem (gap in quality) did the project address?

During the pandemic, 3 significant exposures to COVID-19 were experienced by a physician at Rockbridge Health. Considering this, a more reliable and effective screening protocol for symptoms is needed. Currently, patients have their temperature taken upon entry into the health facility and fill out a COVID-19 form. One of the exposures was a result of a patient who failed to acknowledge experiencing COVID-like symptoms when they completed Rockbridge Health's original screening form.

(2) What did the project aim to accomplish?

The emergence of the COVID-19 pandemic drove the need to develop and implement new procedures to prevent the spread of the disease. The current project addresses the unreliability of Rockbridge Health's initial COVID-19 screening processes in minimizing exposure to the virus for both patients and providers. It will be completed by December of 2021. The original COVID-19 form had 5 questions regarding current symptoms, contact with a contagious person in the past 10 days, a positive COVID 19 test in the past 10 days, quarantining, and traveling within the past 14 days.

The design of a new screening form drew from three original resources which informed best practices for surveys specific to COVID-19, healthcare, or infectious diseases.

(1) The CDC Facilities COVID-19 Screening form was the first resource Rockbridge Health used. Compared to Rockbridge Health's form, the CDC's form has more color, boldness and size of words, and boxes around questions for organization. It also does not have questions about travel. The CDC denotes 14 days for the exposure period with a symptomatic or COVID positive person whereas Rockbridge Health asks about 10 days. The CDC form also offers an accessible online version.
(2) Safdar et al.'s (2006) healthcare epidemiology methods article identifies various considerations when designing and implementing a survey (e.g., optimal survey design characteristics; response choice options, strategies for minimizing biases, and potential advantages of qualitative research. Safdar et al.'s survey design provided an outline to compare with Rockbridge Health's original survey and the CDC's survey. This article highlighted components of survey design that are critical to implementing a survey in a

health care field (e.g., electronic vs. paper format, question choice, length, comprehensibility, display, choice of response and reproducibility). In-person paper surveys for Rockbridge Health were the best practice because patient visits are in person, patients have varying levels of technology skills, and not all patients have access to a smart phone. Safdar et al. also recommended pilot-testing surveys. As a result, initial survey reviews were done by support staff, physicians, and shadows at Rockbridge Health.

(3) In 2001, McColl et al. produced a large review of best practices for health surveys. Chapter 4 provides research evidence on optimal question wording and sequencing. For instance, the order of questions should proceed from the easiest to answer to the most difficult to answer. In fact, most COVID-19 screening forms follow the format of most urgent to least urgent – current symptoms, exposure, travel, and vaccination status. Given these facts, Rockbridge Health's new form was slightly modified from the CDC's form to put a positive COVID-19 test before reporting quarantine. To optimize response accuracy and decrease passivity, McColl et al. (2001) recommended using visuals such as pictures or graphics, and thus Rockbridge Health's new form incorporated images of stop signs. Specifically, the new screening form included graphics of stop signs when answering "Yes" to a question and instructed the respondent to speak to a front desk manager.

Considering our literature research, a new COVID screening form was created based on the current CDC facilities form and Rockbridge Health's original form. Vaccination status was put last due to the demographic composition of Rockbridge County. Many individuals are hesitant to get vaccinated or do not wish to get vaccinated. The form remained on one page with the patient's name, date, and temperature for conciseness and readability.

Upon two implementation periods of the form with changes based on staff feedback, our final main resource was a staff focus group.

(4) One aim of the staff focus group was to reflect on current surveys and their effectiveness. A second aim was to establish one baseline protocol among the support staff for all COVID-based situations. As such, two meetings were held for various support staff members based on their schedules. During each meeting, support staff were first given the opportunity to reflect and process how the new COVID-19 symptom survey was working. Answers ranged from the form being ineffective due to personal opinions to the new forms slowing patients' response time down. Upon agreeing that the paper survey was optimized for Rockbridge Health's needs, the support staff also acknowledged several instances where there were potential exposures from lack of mask wearing, lack of use of the back sick room, etc. Then, behavioral changes addressing potential exposures were discussed and summarized. Four changes were agreed upon: (1) increased vigilance of all patients in waiting room; (2) enforcement of mask mandate in

health care facility; (3) distribute and diffuse responsibility among all healthcare workers and support staff; and (4) direct and encourage minimal family members to come in and to utilize the sick room/back door when symptomatic.

(3) List the measures and results used to evaluate progress.

a. A new screening form was created, and changes were made based on staff and medical provider feedback after first implementation period. The preliminary run with the new COVID screening from was from 10/7/21 to 10/12/21. The first implementation period with patients was from 10/12/21 to 10/19/21. The second implementation period was from 10/26/21 to 11/2/21, where changes were made to the first form.
b. Individual meetings with Kathy, Jenny, and Jennifer (support staff) to establish protocol on how to address areas in the front waiting room and forms.
    i. Behavioral changes agreed upon in meetings:
        1. Increased vigilance of all patients in waiting room
        2. Enforcement of mask mandate in health care facility
        3. Distribute and diffuse responsibility among all healthcare workers and support staff
        4. Direct and encourage minimal family members to come in and to utilize the sick room/back door when symptomatic
c. A decrease in the number of exposures and resulting COVID-19 positive tests from medical staff at Rockbridge. There were 3 exposures as of September of 2021 and there have been no new exposures. Although several factors could have contributed to this reduction in exposures, it is certainly an encouraging sign.

(4) Describe the impact of these changes on your ability to deliver safe and effective care. "What lessons did you learn?"

To deliver safe and effective care, Rockbridge Health focused on making informed decisions which included all staff members and utilized multiple modes of care. After the second round of implementing the new COVID-19 screening form, there were still several instances in which patients experiencing symptoms were coming to the front door and not the back door to access the sick room. Some patients were also not wearing masks.

During meetings with staff support to evaluate their perception of the effectiveness of the form, behavioral changes were introduced in addition to the form. Rockbridge Health has also learned that shared, cooperative responsibility across all staff members, particularly in reference to the high stress of the pandemic, is essential to providing safe and effective care for both patients and medical providers. Lastly, it is essential to ensure that all members who are responsible for the

environment of the healthcare practice are on the same page about changes in the office and needed behavioral modifications. Reflection and reflective practice, in which people purposefully and carefully consider their biases and experiences, can increase the efficacy of healthcare tools because it requires integration of personal experiences and theory (Mann et al., 2007). Based on literature, formal feedback to surveys is most useful when made meaningful and relevant to staff (Jones et al., 2020). For example, having organizational systems to actively discuss feedback can make better use of opportunities of reflection. Upon reflection and behavioral changes, it appears that the efficacy of the Rockbridge Health's new form is greater than its previous form, and that communication has increased among the staff as well.