Problem Statement

*In 2-3 sentences, describe the condition you hope to improve. What is the quality gap?*

Ventilator-associated pneumonia (VAP) rates in our NICU are high. In 2019, our NICU had a VAP rate of 4 per 1000 ventilator days for VLBW infants; the latest CDC NHSN data from 2013 had average VAP rates of around 1 per 1000 vent days for VLBW infants. We believe our high VAP rates contribute to our higher BPD rates.

We do not have a specific bundle around VAP prevention in our NICU; in adult ICUs and in NICUs, bundles have been shown to reduce VAP rates. NICU VAP bundles have included closed suctioning systems, patient positioning, oral care, and hand-hygiene around ventilator management.

Aim Statement

*What is the outcome you are hoping to accomplish. State this using the SMART Aim Framework (Specific, Measurable, Attainable, Relevant, Time-Bound).*

GLOBAL AIM: Reduce BPD in our NICU.

SMART AIM: Reduce VAP rate from 4 per 1000 device-days to 2 per 1000 device-days (a 50% reduction) among VLBW infants by December 31, 2020.

PDSA-SPECIFIC SMART AIM: Increase the percent of VLBW infants receiving oral care with colostrum or donor milk within first 24 hours of life from 30% to 70% by June 30, 2020.

Outcome Measures *— the elements you want to ultimately affect*

1. Ventilator Associated Pneumonia Rate

2.

3.

Process Measures *— the things you will measure to let you know your changes are taking place*

1. % of VLBW infants receiving oral care with colostrum or donor milk by 24 hours of life

2. % of mothers of VLBW infants hand-expressing or pumping within 6 hours of delivery

3.

Balancing Measures*— measures to test if your intervention has introduced secondary problems*

1. Unintended extubation rate

2.

3.

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Adapted in part from the QI Project Charter Worksheet, available from the Institute for Healthcare Improvement, available at IHI.org