



# Bubble CPAP: Positive Outcomes in the Neonatal Intensive Care Unit



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## Evidence Driving the Change

- Current literature review supported the practice change<sup>1-5</sup>
- Bubble CPAP reduced the intubation rate by 18% when compared to other non-invasive methods<sup>1</sup>
- Bubble CPAP had the best reliance of delivered pressure<sup>2</sup>
- Ventilator days, chronic lung disease, hospital cost, and length of stay were lower<sup>2-5</sup>
- Bubble CPAP was more cost-effective compared to other respiratory support devices<sup>2-5</sup>

## Implementing the Change

- Multiple educational training sessions were conducted
- Superusers were appointed who reinforced the evidence behind the practice change
- Bubble CPAP equipment was set up in the NICU prior to the Go-Live day
- UPMC Magee staff came to Hamot to offer additional insight, training, and practice tips



## Evaluating the Outcomes

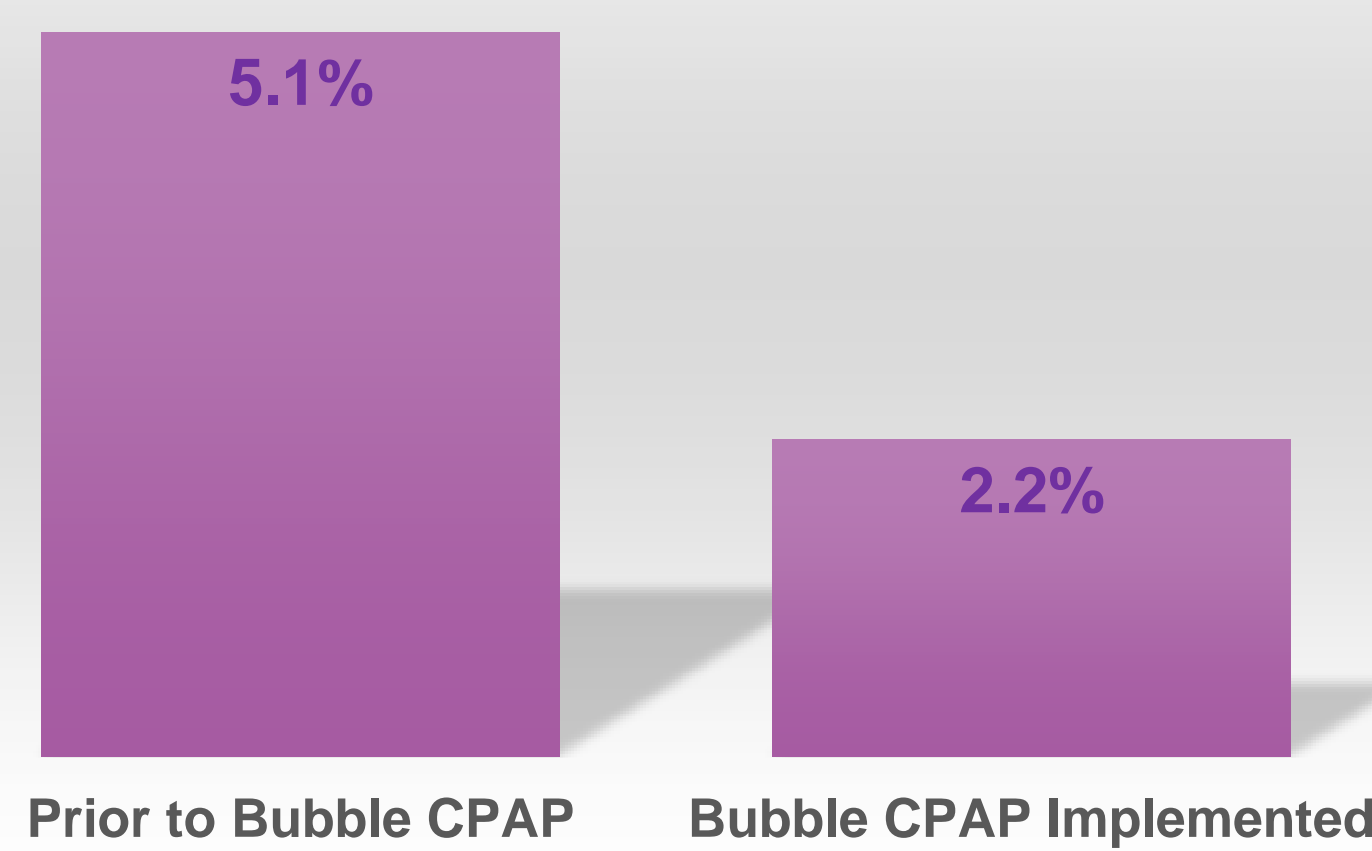
- Data were collected using Vermont Oxford Database 6 months prior to and 5 months after implementation
- Measured patient outcomes were length of stay, chronic lung disease rates, ventilator days, total respiratory support days, and Curosurf usage/cost



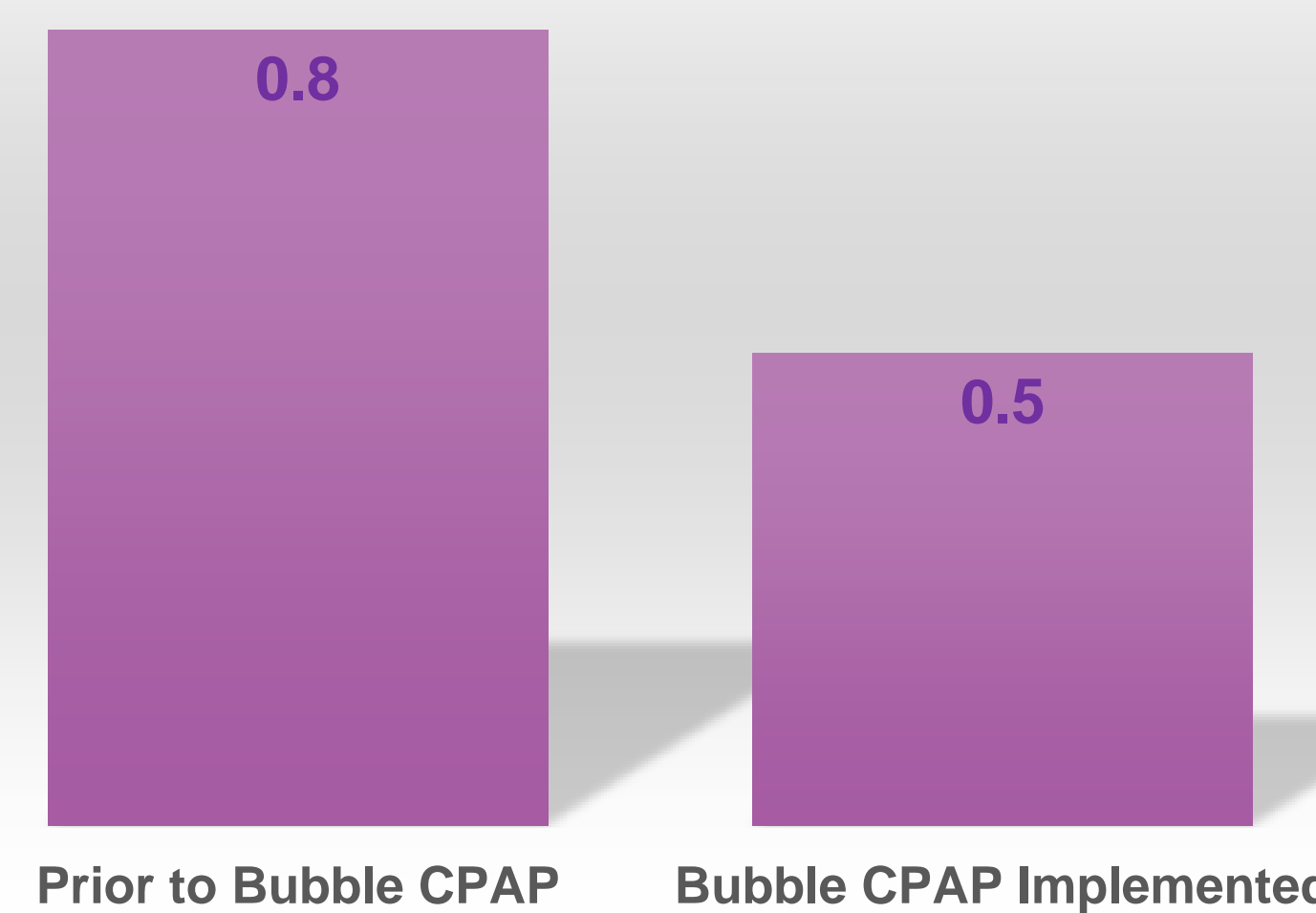
## Results

- The evaluation yielded positive outcomes in all five measured categories

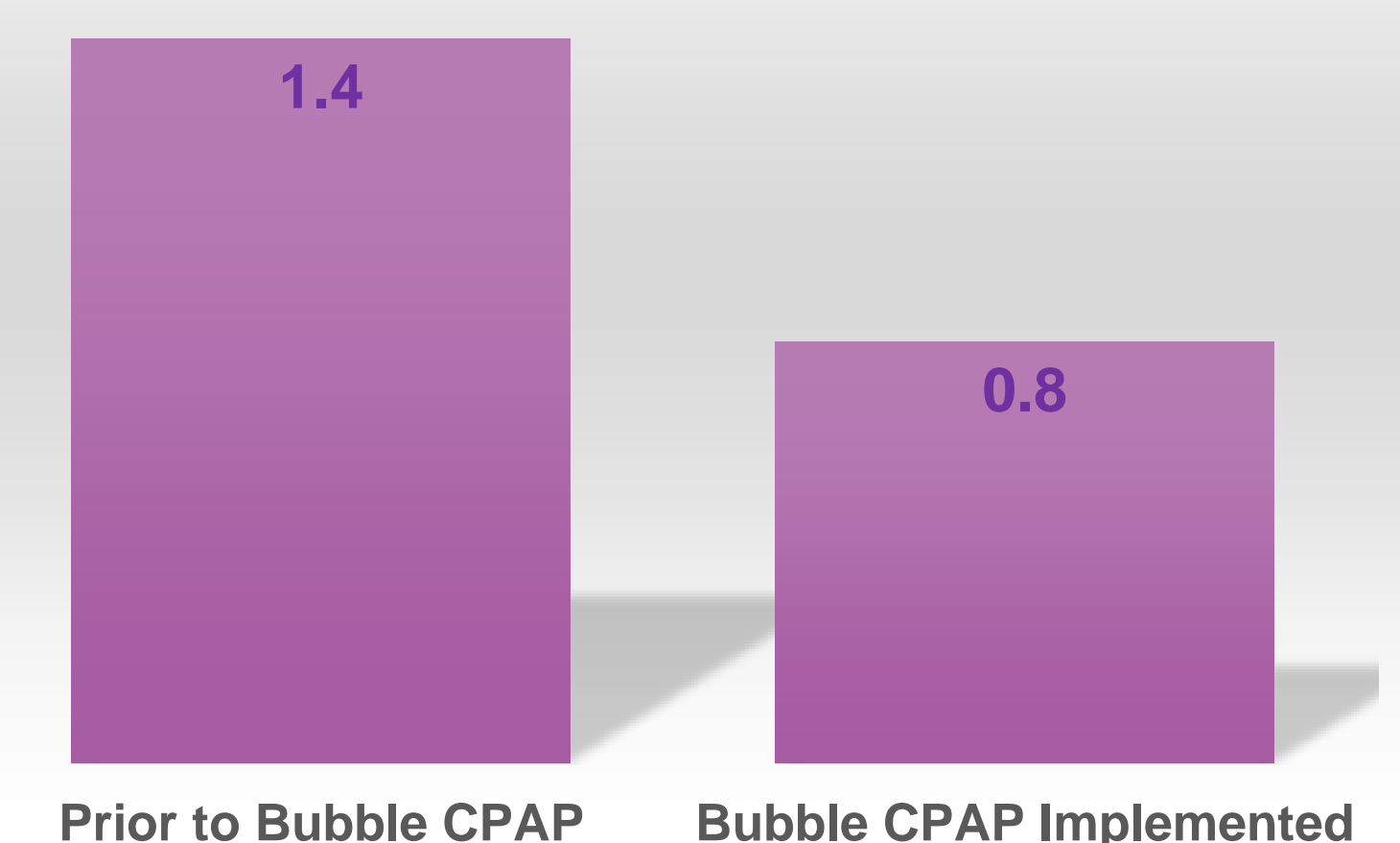
### Percent with Chronic Lung Disease



### Average Ventilator Days

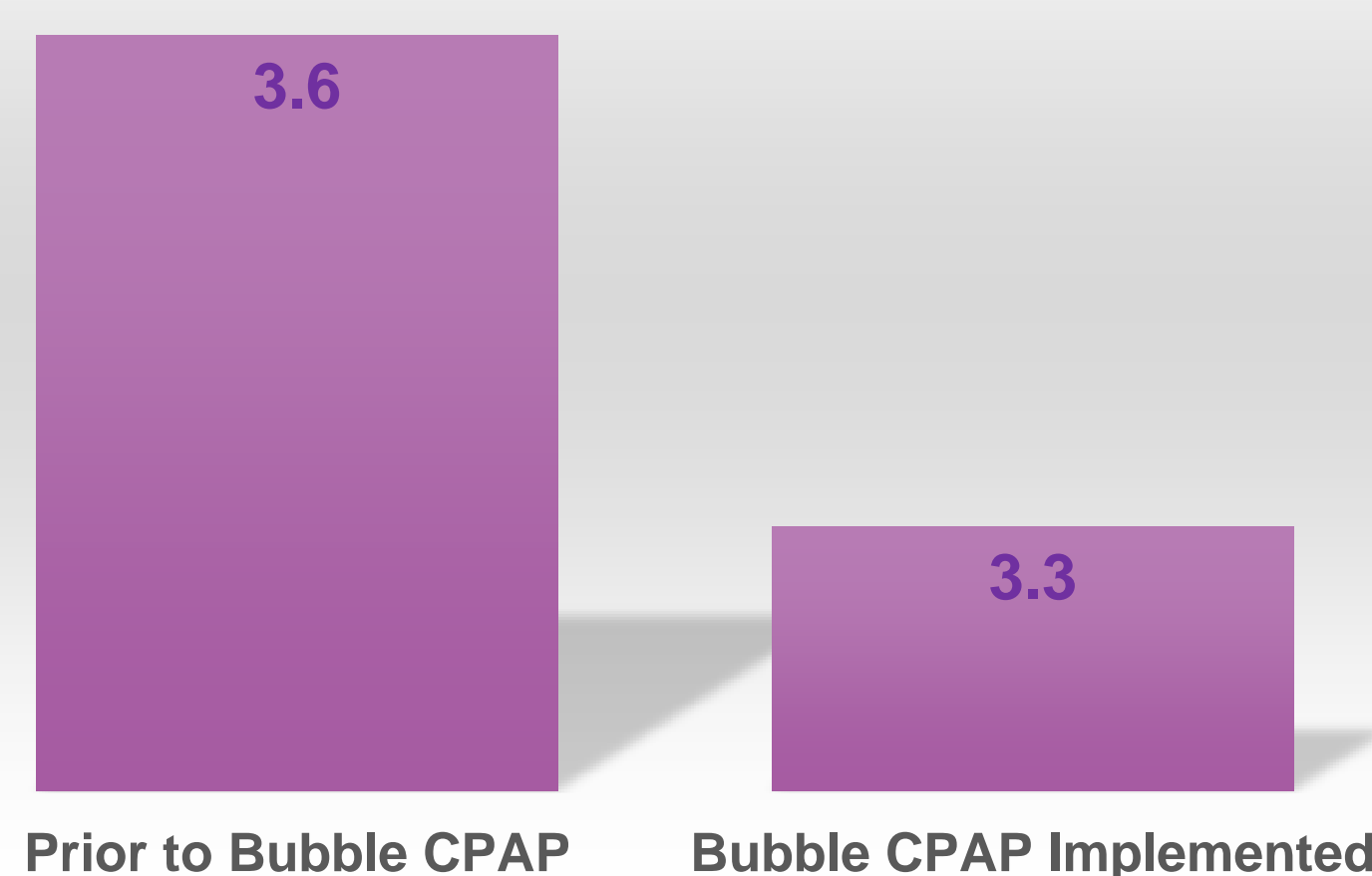


### Curosurf Uses Per Month

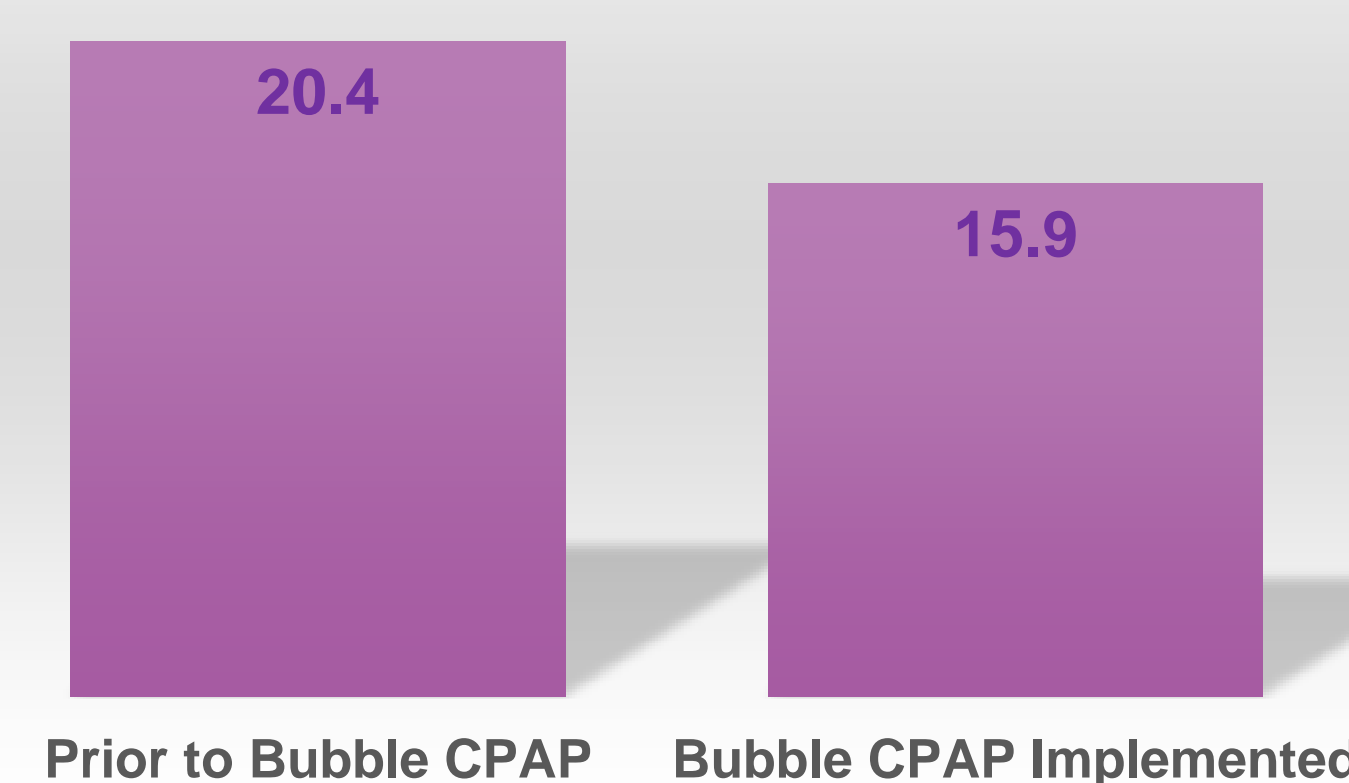


Decrease of 42% with Average Savings of \$345/month

### Average Respiratory Support Days



### Average Length of Stay in Days



## References

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