

CARE SETTING

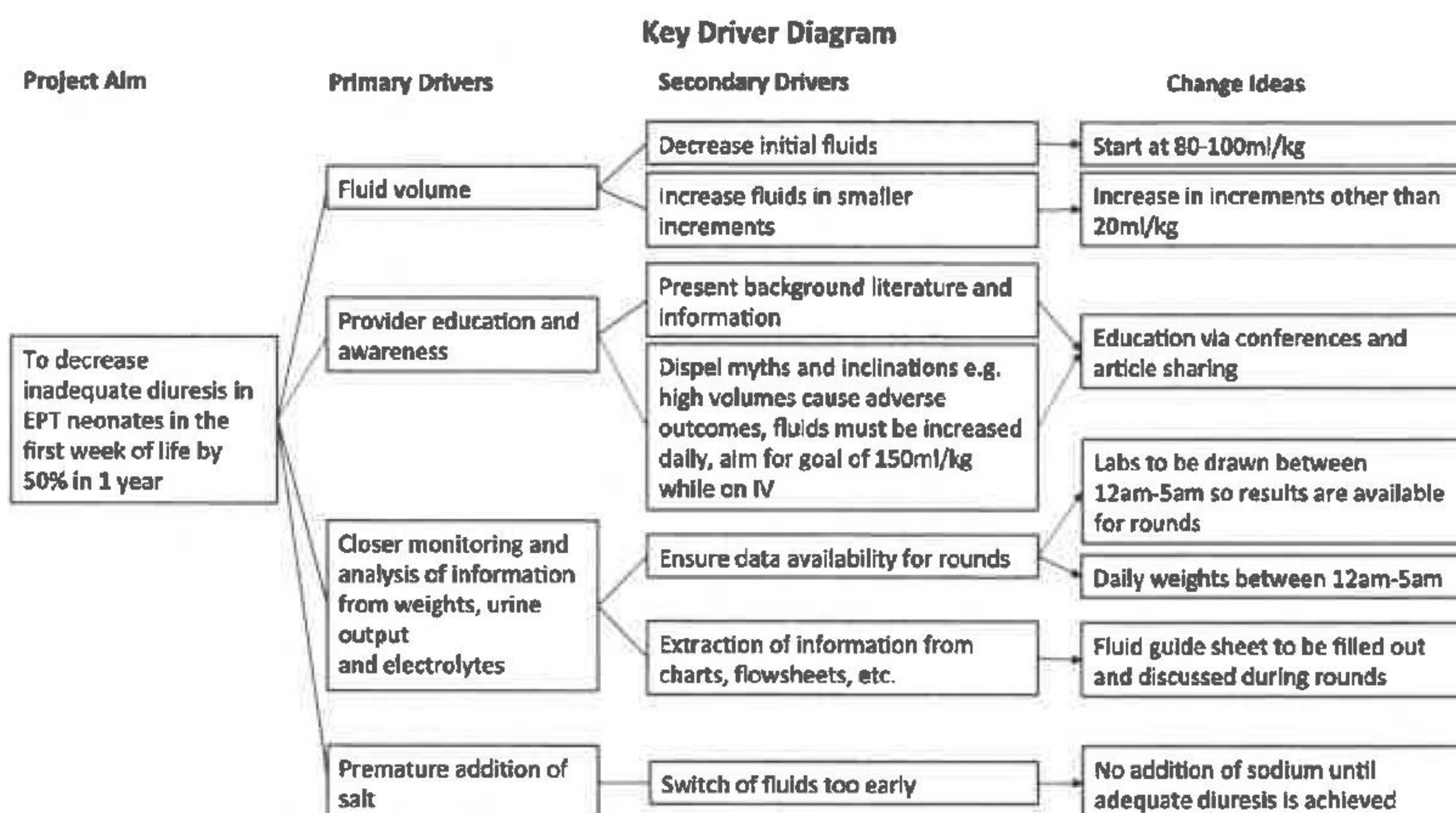
- Fifty-bed NICU at Vidant Medical Center (East Carolina University) in Greenville, NC
- Teams involved nurse, medical student, nurse practitioner, attending physician, and resident physician

PROJECT AIM

To decrease incidence of inadequate postnatal diuresis (loss of <6% birth weight) during first week of life in infants less than 28 weeks' gestation by 50% over 1 year. The incidence of inadequate postnatal diuresis was 43%, compared to 3-8% in other units.

DETAILS & INTERVENTIONS

- Multimember team formed to amend inadequate diuresis protocol previously in place to manage fluid in neonates
- A new fluid management sheet was designed for better access and decision making
- Provider education, closer monitoring of hydration status, and delaying the addition of sodium to fluids were also part of the intervention



REFERENCES

Havinga J, Williams A, Hassan N, Moore S, Dollhopf E, Tumin D, Akpan US. Individualized fluid management in extremely preterm neonates to ensure adequate diuresis without increasing complications. J Perinatol. 2021 Feb;41(2):240-246. doi: 10.1038/s41372-020-00789-7. Epub 2020 Aug 19. PMID: 32814823.

STRENGTHS

- Inadequate diuresis decreased to 29% (from 43%) over 12 months
- Techniques generalizable to all neonates
- Neonatal fluid volume and maximum daily fluid volume decreased by statistically significant margins
- Tool underwent 6 PDSA cycles

OPPORTUNITIES

- Better EMR integration for patient flow
- Nurse lead rounds started for nightly fluid management
- Possibility to reduce sodium content in IV medication and blood products
- Fluid management sheet as a teaching tool

RECOMMENDATIONS

- Collect and present qualitative survey data from provider teams
- Perform root cause analysis to determine if there are more areas where intervention may help
- Continue to implement educational trainings for providers and monitor inadequate diuresis