Summary of Relevant Studies/Reports

Supporting Removal of Practice Barriers for Certified Registered Nurse Anesthetists

1. "Scope of Practice Laws and Anesthesia Complications" by Negrusa, Hogan, Warner, Schroeder and Pang (Medical Care, October 2016)

A study of 5.7 million anesthesia procedures in 2011-2012 found no statistically significant difference in the risk of anesthesia complications based on the degree of restrictions placed on CRNAs by state scope-of-practice laws. The evidence suggests that there is *no empirical evidence for scope-of-practice laws that restrict CRNAs from practicing at levels that are below their education and training* based on differences in anesthesia complication risk.

2. "Physician anesthetists versus non-physician providers of anesthesia for surgical patients (Review)" by Lewis, Nicholson, Smith and Alderson (The Cochrane Collaboration, 2014)

A study of 1.5 million participants found that no definitive statement can be made about the possible superiority of one type of anesthesia care over another (i.e. physician vs. CRNA).

3. "No Harm Found When Nurse Anesthetists Work without Supervision by Physicians" by Dulisse and Cromwell (Health Affairs, August 2010)

In 2001, the Centers for Medicare and Medicaid Services (CMS) allowed states to opt out of the requirement for reimbursement that a surgeon or anesthesiologist oversee the provision of anesthesia by CRNAs. By 2005, fourteen states had exercised this option. An analysis of Medicare data for 1999-2005 finds no evidence that opting out of the oversight requirement resulted in increased inpatient deaths or complications. Every state should allow CRNAs to work without the supervision of a surgeon or anesthesiologist.

4. "Anesthesia Provider Model, Hospital Resources, and Maternal Outcomes" by Needleman and Minnick (Health Services Research, November 2008)

A study of 1.1 million obstetrical patients found that anesthesia complication rates in CRNA-only hospitals were lower (0.23%) than anesthesiologist-only hospitals (0.27%). It concluded that hospitals that use only CRNAs, or a combination of CRNAs and anesthesiologists, do not have systematically poorer maternal outcomes compared with hospitals using anesthesiologist-only models.

5. "Anesthesia Staffing and Anesthetic Complications During Cesarean Delivery: A Retroactive Analysis" by Simonson, Ahern, and Hendryx (Nursing Research, 2007)

A study of all cesarean section births in the State of Washington from 1993-2004 found no difference in death rates or anesthetic complications between the two staffing types

examined: CRNA-only vs. anesthesiologist-only. The study concluded that because differences in hospitals' obstetric anesthetic staffing configurations do not appear to impact risks of death and complications, hospitals may safely examine other variables such as provider availability and costs in determining obstetrical anesthesia staffing models.

6. "Surgical Mortality and Type of Anesthesia Provider" by Pine, Holt, and Lou (AANA Journal, 2003)

A study of 404,194 surgical patients found no statistical difference in mortality rates in hospitals without anesthesiologists versus hospitals where anesthesiologists provided or directed anesthesia care.

- 7. Reforming America's Healthcare System Through Choice and Competition U.S. Department of Health and Human Services (December 3, 2018)
 - States should consider changes to their scope-of-practice statutes to allow all healthcare providers to practice to the top of their license, utilizing their full skill set.
 - The federal government and states should consider accompanying legislative and administrative proposals to allow non-physician and non-dentist providers to be paid directly for their services where evidence supports that the provider and safely and effectively provide that care.
 - States should consider eliminating requirements for rigid collaborative practice and supervision agreements between physicians and dentists and their care extenders (e.g. physician assistants, hygenists) that are not justified by legitimate health and safety concerns
- 8. "Influence of Supervision Ratios by Anesthesiologists on First-case Starts and Critical Portions of Anesthetics" by Epstein and Dexter (Anesthesiology, V 116, No. 3, 2012)

Under "medical direction" model, even with one anesthesiologist supervising two CRNAs, lapses in supervision occurred 35% of the time resulting in delayed surgical start times.

9. "Benefits of Less Restrictive Regulation of Advance Practice Registered Nurses in Florida" by Unruh, Rutherford, Schirle, and Brunell (Nursing Outlook 2018)

The study found that between 2013 and 2025 APRN supply could increase an additional 11% with less restrictive practice regulations. This could eliminate or reduce the shortage of different types of physicians. Health care cost-savings could be \$50 to \$493 per resident. A number of economic benefits would result from less restrictive APRN regulation, with an estimated savings to Florida's health care system of between \$968 million and \$9.5 billion by 2025, and the addition of 4,518 to 10,390 new jobs.