



A CENTURY OF OBSTETRICS



Introduction

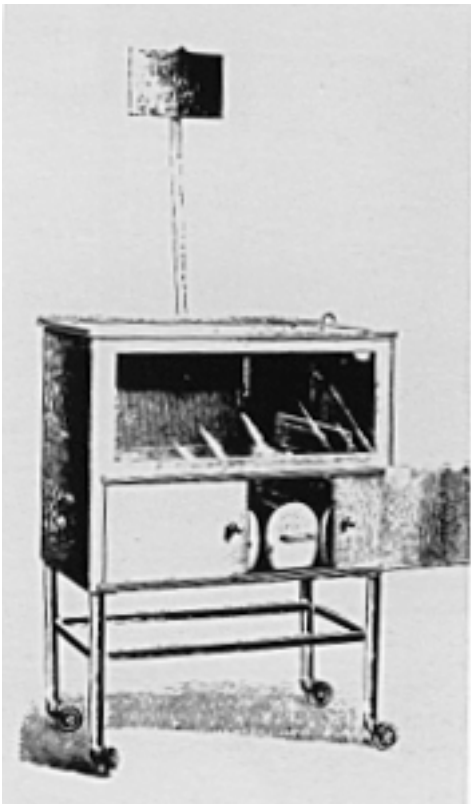
1890 - 1930

Education

Clinical Ob

Home Page

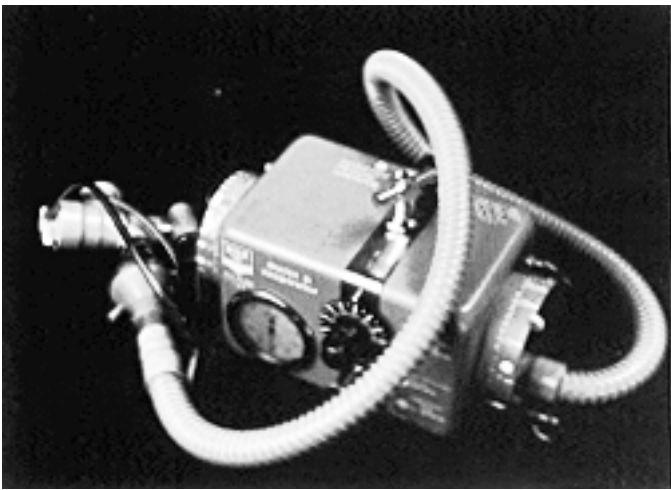
Neonatal Care



Incubator, 1890s. *Maria Delivoria-Papadopoulos, M.D.*



Newborn on ventilator, 1963. *Maria Delivoria-Papadopoulos, M.D.*



Bird respirator

Technological advancements in neonatal care have worked hand in hand with high risk obstetrics in improving the survival rate of newborns that can be brought to at least 25-32 weeks gestational age before term. Among the more commonly used survival tools is the incubator. While the ancestors of the incubator were developed in the late-nineteenth century, the "modern" incubator has been available since the 1940s.

But one of the most significant developments in neonatology has been the use of the ventilator for treating respiratory distress syndrome (RDS). The world's first successful use of a ventilator for premature newborns suffering from RDS was accomplished at the University of Toronto in 1963 by

Maria Delivoria-Papadopoulos, M.D., prior to her joining the Penn faculty. Delivoria-Papadopoulos resuscitated an 1800-gram (4-pound) infant, 34 weeks gestation, that had had complete cardiorespiratory arrest. Using the Bird respirator, she ventilated the infant for 12 days, after which it survived on its own. Since that initial treatment, newborns as small as 430 grams (less than one pound) have been saved with the ventilator. Roberta Ballard, Professor of Pediatrics, currently heads the Medical Center's Division of Neonatal-Perinatal Medicine.

[Introduction](#)

[1890 - 1930](#)

[Education](#)

[Clinical Ob](#)

[Home Page](#)

© COPYRIGHT 1997



UNAUTHORIZED REPRODUCTION OF THIS MATERIAL IS STRICTLY PROHIBITED
www.med.upenn.edu