Discerning Successful Telemedicine Applications for Obstetrics and Neonatology
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Objectives
• Attendees will learn which telemedicine applications are most successful in obstetrics and neonatology.
• Attendees will learn how to tailor their program(s) to result in the highest possible level of participation.
• Attendees will learn about differences in utilization of obstetrics and neonatology virtual census rounds.

Background
With a goal of facilitating high-risk obstetric referrals to tertiary care centers, a new concept in obstetrics and neonatology collaboration partnered nine hospitals primarily serving a Medicaid population with the state’s only academic medical center to participate in virtual census rounds via a previously implemented telemedicine network. The network was created by healthcare leaders who developed a Community-Based Research and Education Core Facility establishing telemedicine interactivity with several of the state’s outlying hospitals. Funding was also provided by the National Center for Research Resources and the Centers for Medicare and Medicaid Services via a Transformation Grant. T1 lines and codec-and-camera carts allowed videoconferencing using a high-definition camera.

Outcomes
During the nine months of the project, virtual census rounds were routinely used by neonatologists and pediatricians as a forum for follow-up (122), questions (43), and transport coordination (22), while obstetrician utilization of these services remained low (follow-up, 5; questions, 4; transport coordination, 5; Figure 1). Medical staff at participating hospitals evaluated this telemedicine initiative by completing surveys on a Likert five-point agreement scale. Despite high levels of satisfaction with telemedicine in general (average agreement 68%, N=18; Figure 2), in a “comments” section of the survey, professionals expressed concerns over connection time and found little perceived value in using telemedicine in obstetrics, particularly in emergent scenarios. Attendance patterns during virtual census rounds, 17% for obstetrics and 57% for neonatology, also reflected this trend (Figure 3).

Conclusions
While this application was not well-suited to obstetrics, “lessons learned” lead to the development of other innovative programs such as interactive nurse to nurse report that fostered relationships with distant colleagues.

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