

# RSV hospitalization rates in US preterm infants, 2011-2017

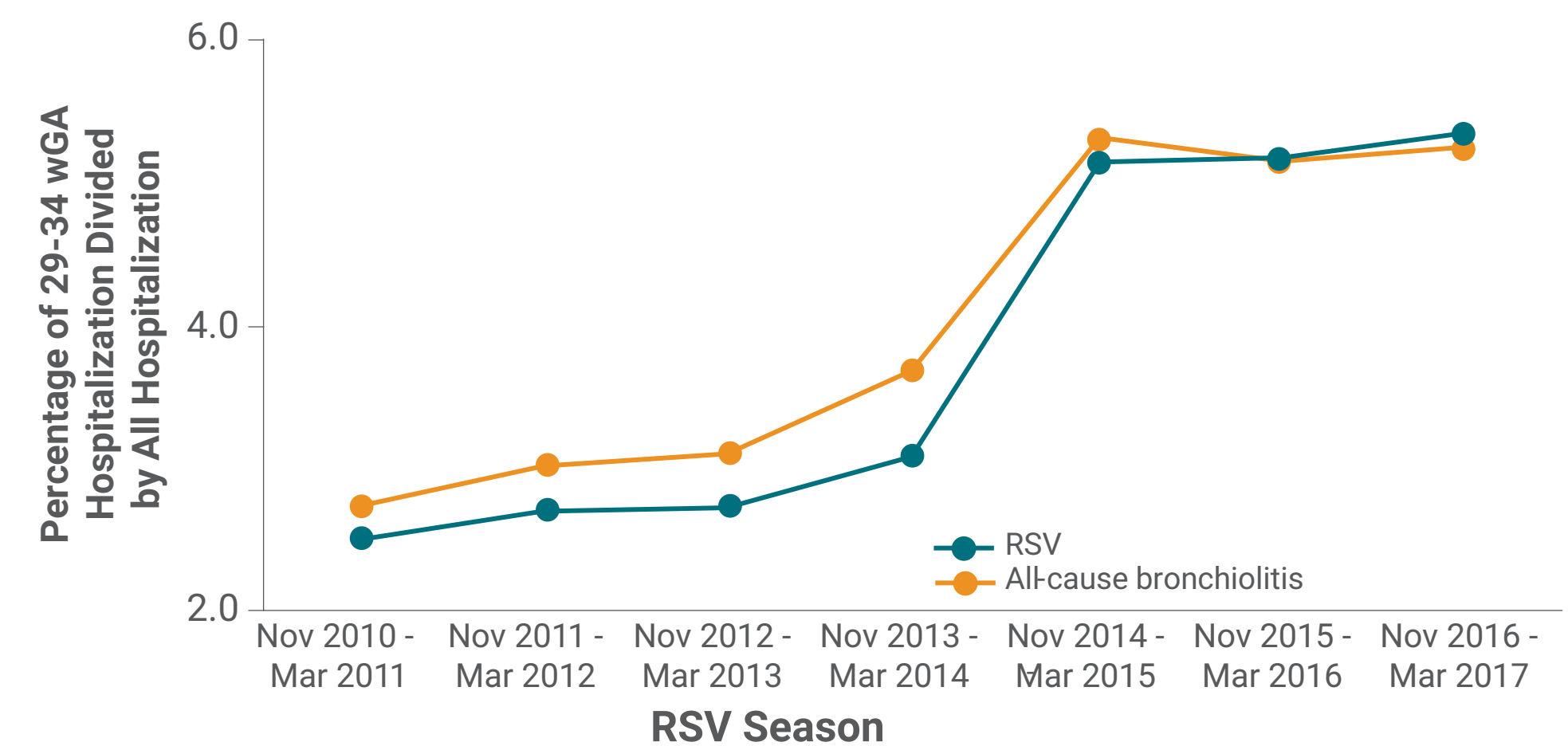
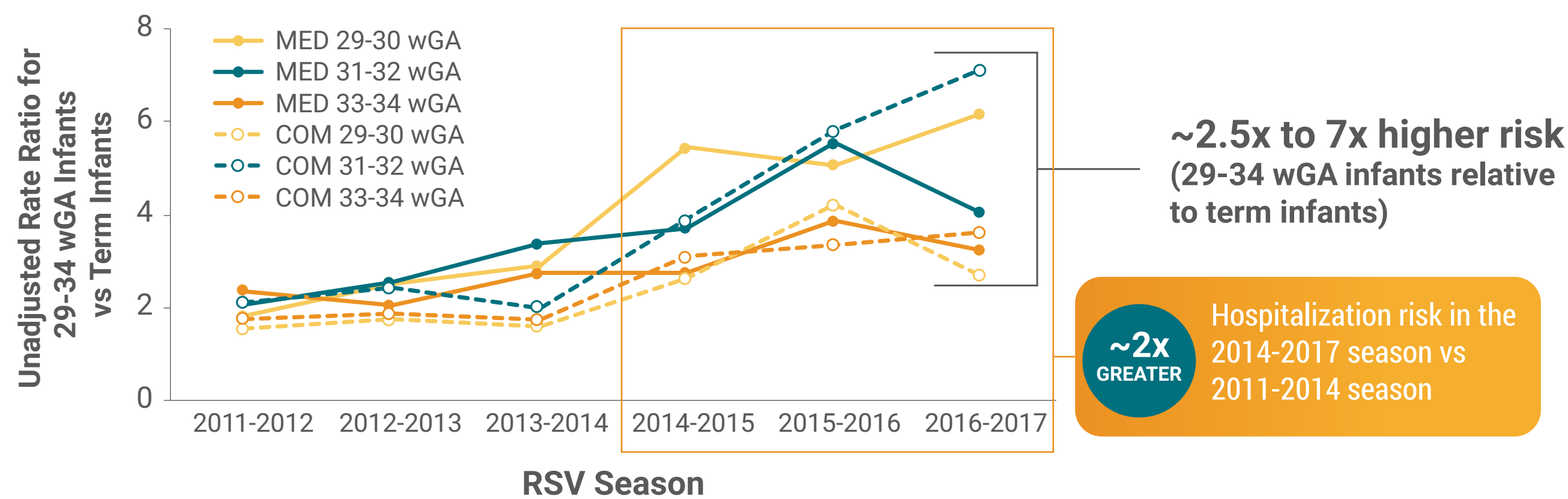
RSV hospitalization rates and rates relative to full-term infants were higher in the RSV seasons after 2014 compared with prior seasons and were highest among preterm infants with earlier gestational age and younger chronological age (CA).<sup>1-3</sup>

## An examination of US RSV-specific hospitalization rates during the RSV seasons before and after 2014 using the MarketScan Commercial and Multi-State Medicaid databases and the Pediatric Health Information System<sup>1-3</sup>

- The Goldstein et al study compared RSV hospitalization rates in infants aged <6 months in the two RSV seasons before (2012-2014) and after (2014-2016) the guidance change. The study included commercially insured infants born at 29-34 weeks' gestational age (wGA) (n=33,667) and full-term infants (n=668,619) as well as Medicaid-insured infants born at 29-34 wGA (n=51,439) and full-term infants (n=908,594)<sup>1</sup>
- Fergie and colleagues expanded the observational, retrospective, cohort study using PHIS data and compared RSV hospitalization rates in preterm (29-34 wGA) infants with those of term infants in the 3 RSV seasons before (2011-2014) and after (2014-2017) the guidance change<sup>2,3</sup>
- RSV hospitalizations were identified using ICD diagnosis codes on inpatient claims; confirmatory laboratory results were not available<sup>1,2</sup>

When compared with full-term infants, the risk of RSV hospitalization was significantly greater in commercially insured and Medicaid-insured preterm infants born at 29-34 wGA and <6 months CA in the seasons after 2014<sup>1-3</sup>

Proportions of hospitalizations increased dramatically (almost 2-fold) for 29-34 wGA infants aged <6 months, when comparing the pre-AAP 2014 guidance seasons (2010-11 through 2013-14) to the post-AAP 2014 guidance seasons (2014-15 through 2016-17)<sup>3,\*</sup>



- The increase in the unadjusted RSV hospitalization rate ratios was observed across all gestational age subgroups for both commercially insured and Medicaid-insured infants<sup>2</sup>

- The proportion of RSV hospitalizations significantly increased ( $P<0.001$ ) for 29-34 wGA infants after 2014 (from 8.7% to 14.2%). A similar pattern was seen for BH<sup>3</sup>

\*The proportion of RSV hospitalizations increased after 2014 across all gestational age subgroups, except for term infants ( $\geq 37$  wGA).

For additional information on the burden of RSV disease, visit [RSVHospitalization.com](http://RSVHospitalization.com).

BH, bronchiolitis hospitalizations; COM, commercially insured; ICD, International Classification of Diseases; MED, Medicaid-insured; RSV, respiratory syncytial virus.

References: 1. Goldstein M, Krilov LR, Fergie J, et al. Respiratory syncytial virus hospitalizations among U.S. preterm infants compared with term infants before and after the 2014 American Academy of Pediatrics guidance on immunoprophylaxis: 2012–2016. *Am J Perinatol*. 2018;35(14):1433-1442. 2. Fergie J, Goldstein M, Krilov LR, et al. Respiratory syncytial virus hospitalization rates among term and preterm infants before and after changes to the American Academy of Pediatrics guidance on immunoprophylaxis: 2011 to 2017. Poster presented at: Pediatric Academic Societies Meeting; April 27-30, 2019; Baltimore, MD; Poster 527. 3. Data on file. Sobi, Inc; 2019.