

# RSV disease burden based on ICU admission and mechanical ventilation (MV) during the 3 RSV seasons before and after 2014

The 2014 policy change on RSV IP resulted in increased RSVH severity, particularly among preterm infants born at 29-34 weeks' gestational age (wGA).<sup>1,2</sup>

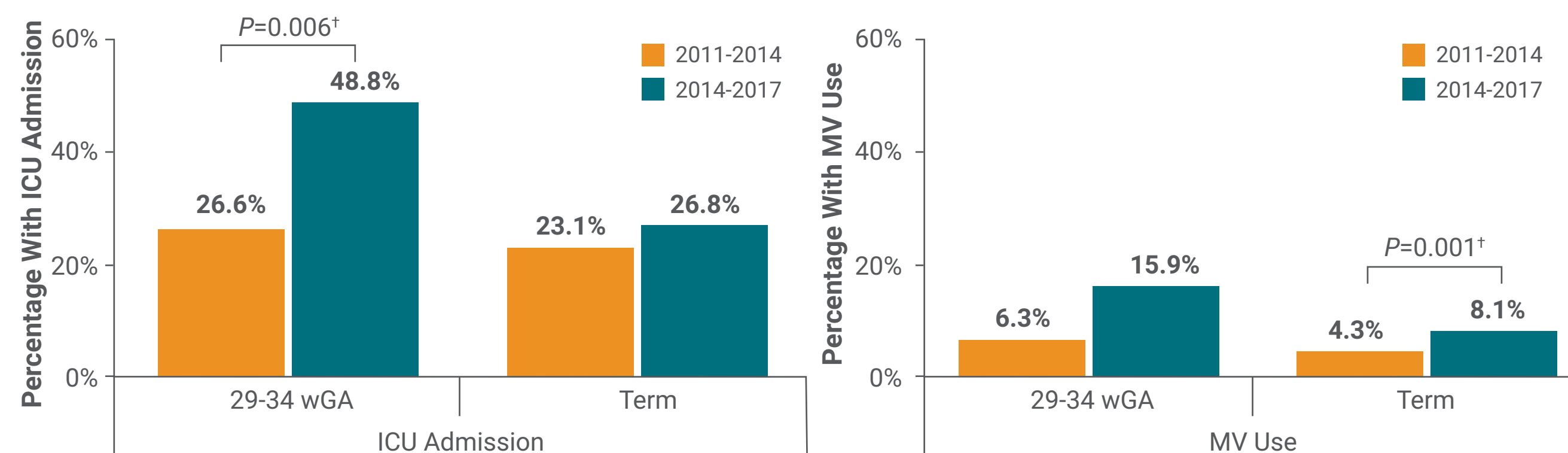
An examination of US RSV disease burden during RSV seasons before and after 2014 using commercial claims databases and the Pediatric Health Information System (PHIS)<sup>1,2</sup>

- Krilov and colleagues conducted an observational, retrospective, cohort study using administrative claims data from the Optum Research Database to examine RSV IP use and the rates, severity, and costs of RSVH in 29-34 wGA infants vs term infants in the 2011-2014 vs 2014-2017 seasons<sup>1</sup>
- Fergie and colleagues conducted an observational, retrospective, cohort study using PHIS data and compared RSVH rates in preterm (29-34 wGA) infants with those of term infants in the 3 RSV seasons before (2010-2014) and after (2014-2017) the American Academy of Pediatrics (AAP) guidance change<sup>2</sup>

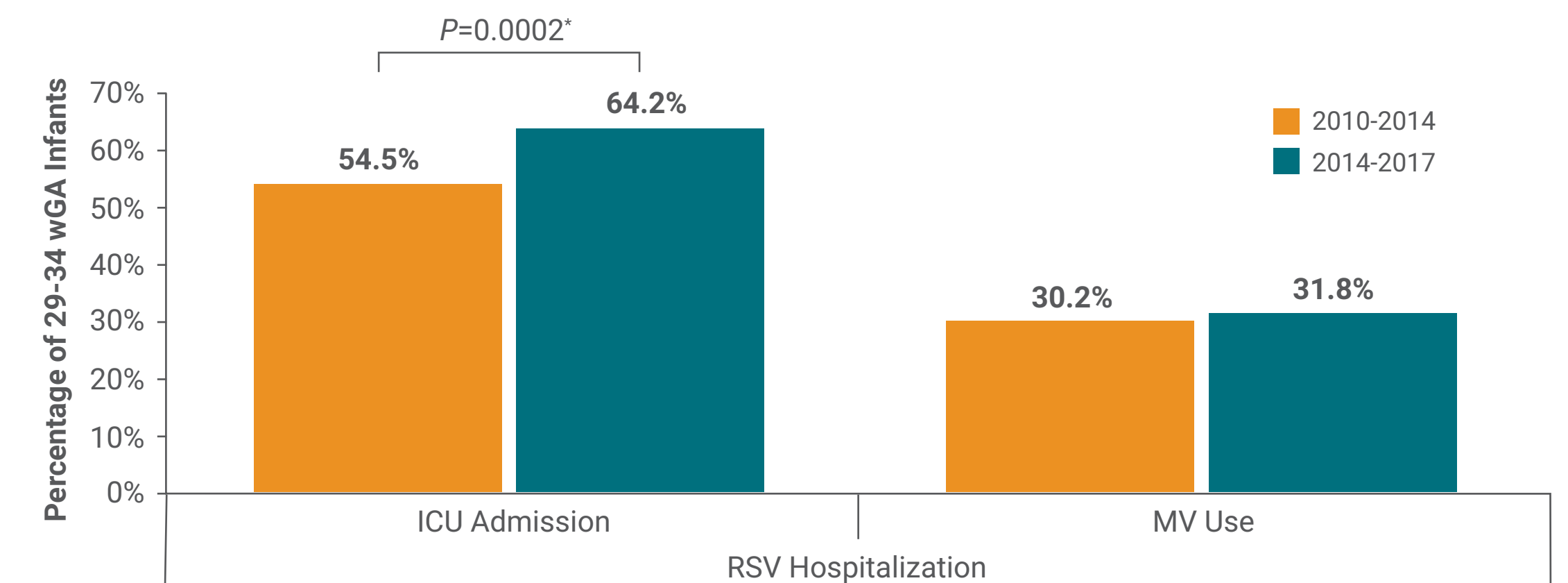
After the policy change, admission to the ICU for RSV was significantly more prevalent among preterm infants aged <3 months, and the use of MV was greater for both preterm and term infants<sup>1,\*</sup>

Among 29-34 wGA infants, ICU admission for RSVH increased significantly after the policy change<sup>2</sup>

Percentage of Infants Who Required ICU Admission or MV Use Based on Commercial Claims Data



Percentage of 29-34 wGA Infants Who Required ICU Admission or MV Use Based on PHIS Data



<sup>†</sup>Among 31,614,116 patients with commercial insurance during the study period; the final sample included 12,558 infants born at 29-34 wGA and 323,216 term infants.

<sup>†</sup>Outcomes among 29-34 wGA infants and term infants were compared for the 2011-2014 RSV seasons vs the 2014-2017 RSV seasons using the chi-square test.

<sup>\*</sup>Logistic regression and quantile regression model adjusted for sex, race, comorbidity, and cluster (hospital) were used to compare the outcomes before and after 2014.

- Readmission for RSVH did not significantly change after 2014 (2.6% of infants readmitted before and 2.4% readmitted after; P=0.708, adjusted model)<sup>2</sup>

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

ICU, intensive care unit; IP, immunoprophylaxis; RSV, respiratory syncytial virus; RSVH, respiratory syncytial virus hospitalization.

References: 1. Krilov LR, Fergie J, Goldstein M, et al. Impact of the 2014 American Academy of Pediatrics immunoprophylaxis policy on the rate, severity, and cost of respiratory syncytial virus hospitalizations among preterm infants. *Am J Perinatol*. 2020;37(2):174-183. 2. Data on file. Sobi, Inc; 2019.

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