

RSV Infections in Adults

7/26/2016

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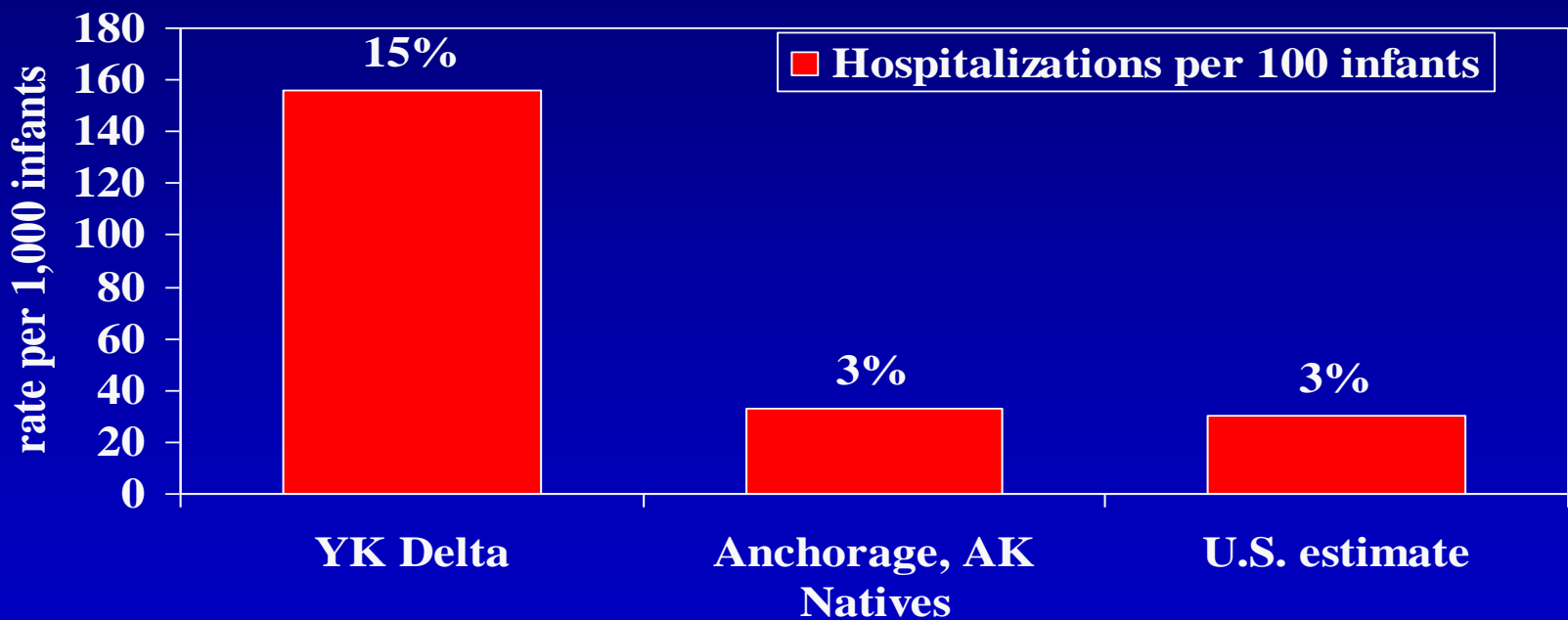
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RSV Surveillance Study 1993-1996:

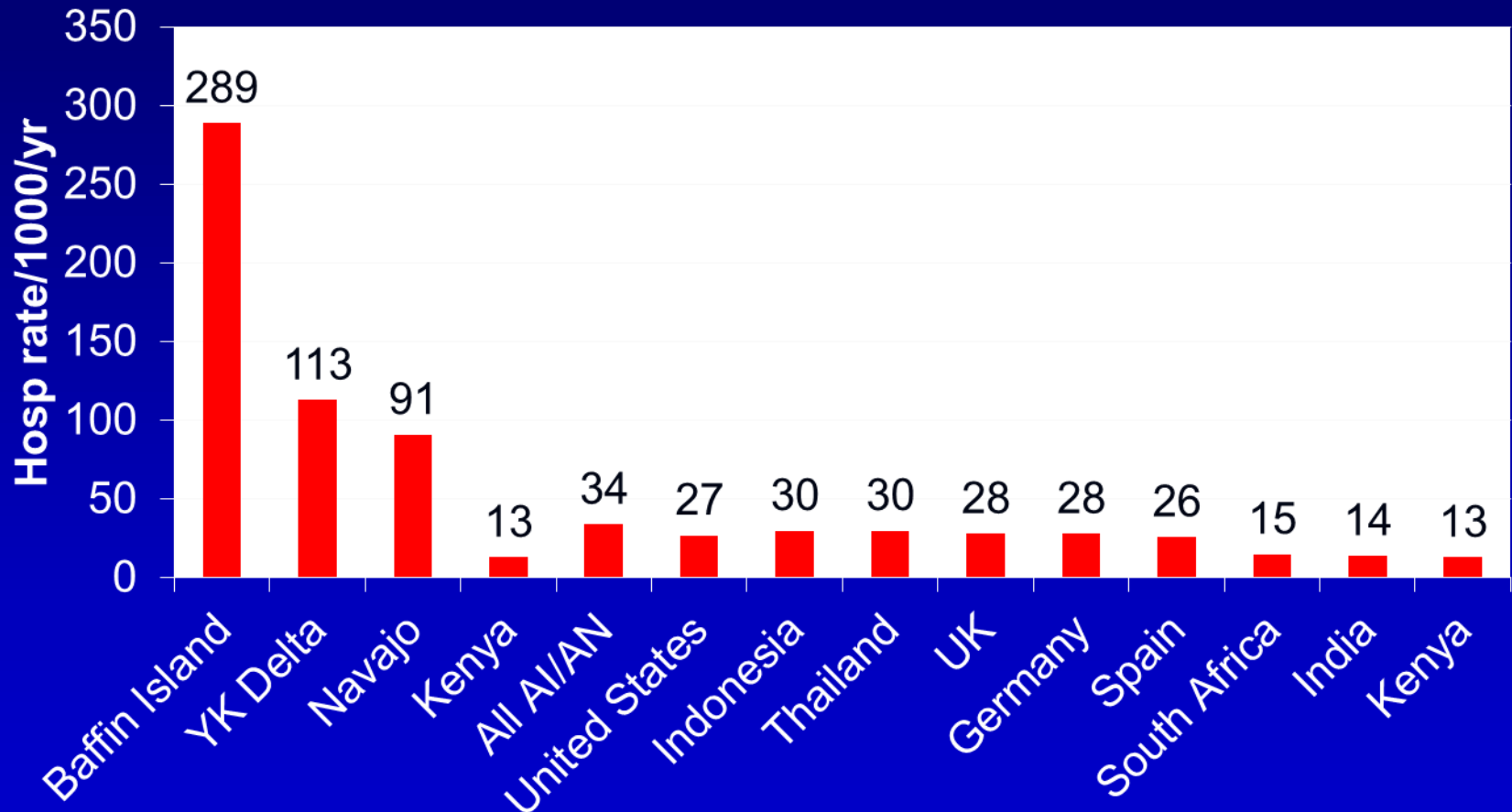
YK Delta RSV hospitalization rate



YK Delta RSV hospitalization rate was the highest reported in the US.

Global estimates of severe RSV:

Rate of Severe or Hospitalized RSV/1000 infants/yr

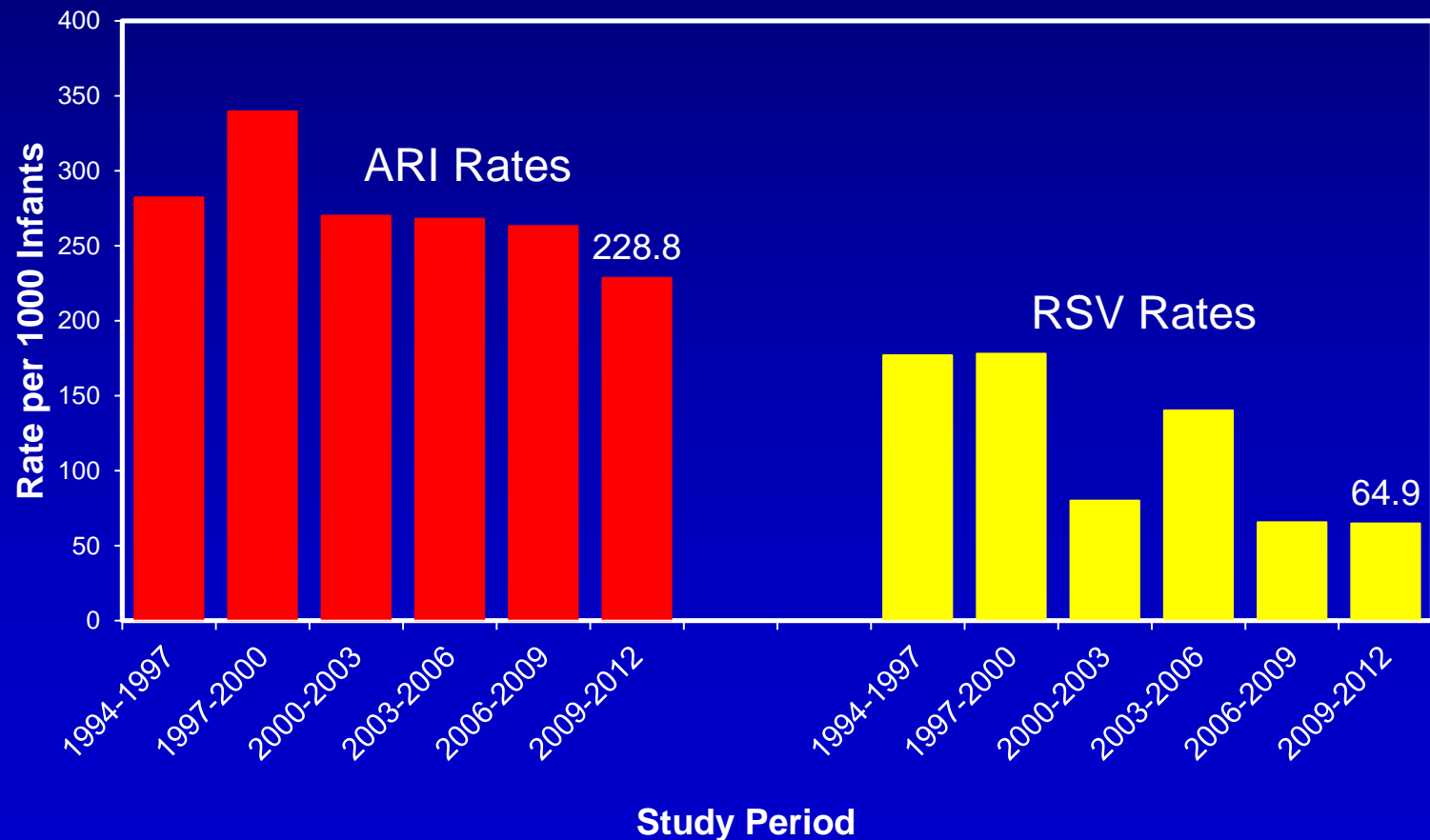


Nair H et al. Global burden of RSV...Lancet 2010;375:1545-55; Banerji. PIDJ 2009.

Acute Respiratory Infection and RSV Hospitalizations – YK Delta < 1 yrs, 1994-2012

ARI hospitalization rate: 285/1,000 ('94-'97) to 223/1,000 ('09-'12)

-RSV hospitalization rate: 177/1,000 ('94-'97) to 65/1,000 ('09-'12)



RSV Epidemiology in Adults

■ U.S. adults

- ◆ Annual attack rate 2-10%, 5-10% in group settings
- ◆ Hospitalization rate similar to flu in one study
- ◆ 10.6% of pneumonia hosp., 11.4% COPD (Falsey 2005)

■ Alaska Native adults

- ◆ **No data on RSV!**
- ◆ Pneumonia/flu death rate twice that of white U.S.
- ◆ Pneumonia and COPD most common causes of potentially preventable hospitalization in YK adults.

RSV vaccines

- RSV vaccines for infants not effective enough
- Adult RSV vaccines are effective - in late clinical trials
- Potential adult RSV uses:
 - ◆ Adults with high risk conditions: COPD, asthma, CHF, immunocompromise
 - ◆ Pregnant women – to protect their newborn infants

Proposed Adult RSV Surveillance

- **Active Surveillance:** NP swab on consenting adults hospitalized for respiratory illness, COPD, asthma, CHF
- **Population:** YK Adults 18 years and older
- **Location:** YKDRH, ANMC
- **Tests:** PCR for RSV, Flu, hMPV
- **Investigators:** CDC Atlanta & AIP, UW, ANTHC, YKHC
- **Research staff:** Research nurse recruits

Objectives: RSV Surveillance

- Determine rate of RSV hospitalization in YK adults
- Determine rate of RSV hospitalization in YK adults with COPD, asthma, or bronchiectasis
- Determine rate of re-hospitalization with RSV
- Evaluate rate of RSV detection in household members accompanying adult hospitalization with RSV/Flu
- Compare sensitivity/specificity of PCR/based Flu tests with clinical Flu tests

Questions?