

Delayed Onset and Diminished Rotavirus Activity---United States, November 2007-May 2008

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Rotavirus Seasonality

- **Consistent prior to 2007-2008 season in the US**
- **Followed a distinct winter-spring pattern**
 - **Median start mid-November (week 46)**
 - **Median peak mid-March (week 12)**
 - **Median end mid-June (week 24)**

Vaccine Coverage

- **Vaccine coverage increased from last year**
- **By March 2008, data from 8 sentinel sites suggest that**
 - mean of 56.0% of infants aged 3 months received 1 dose**
 - mean of 33.7% of infants aged 13 months received 3 doses**

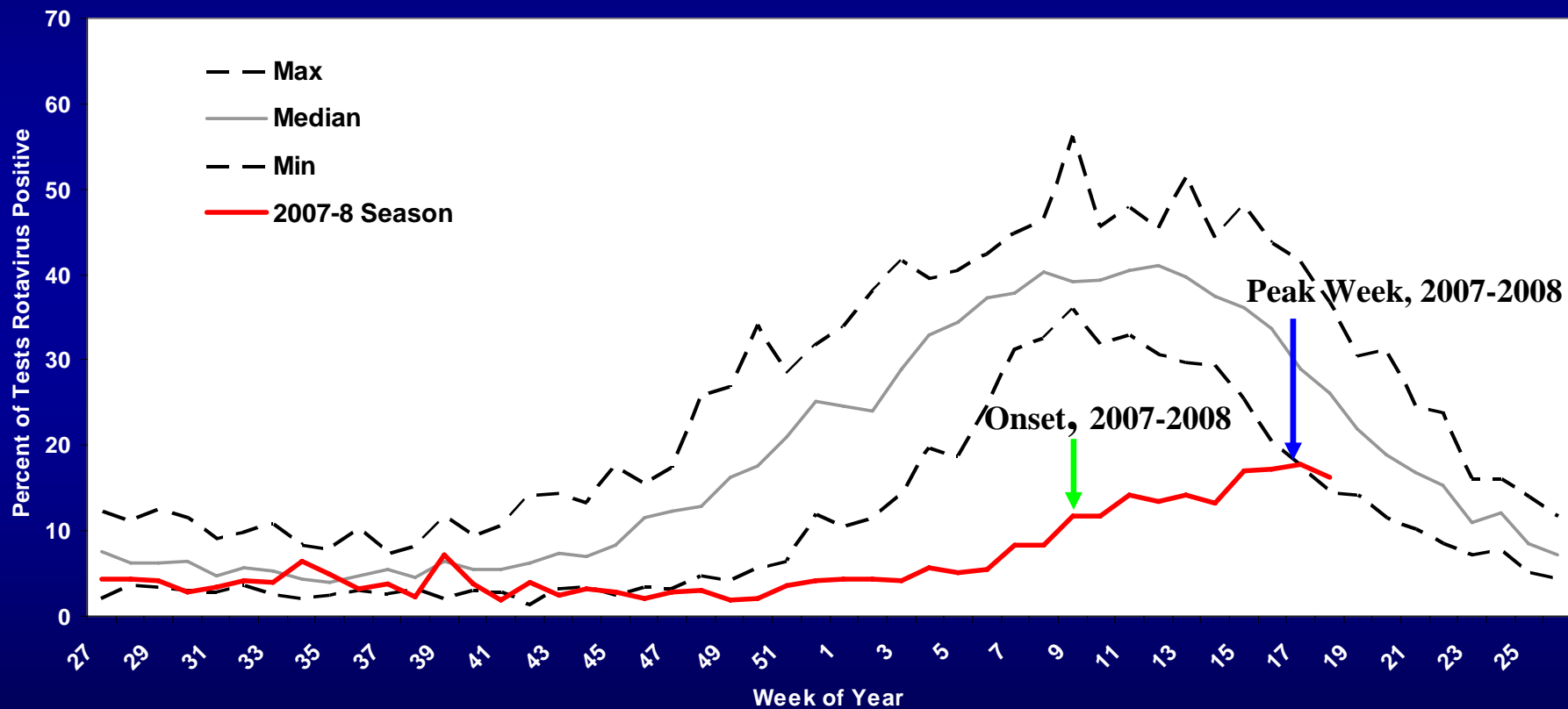
Objective

Characterize the unusual rotavirus season in the US from November 2007-May 2008

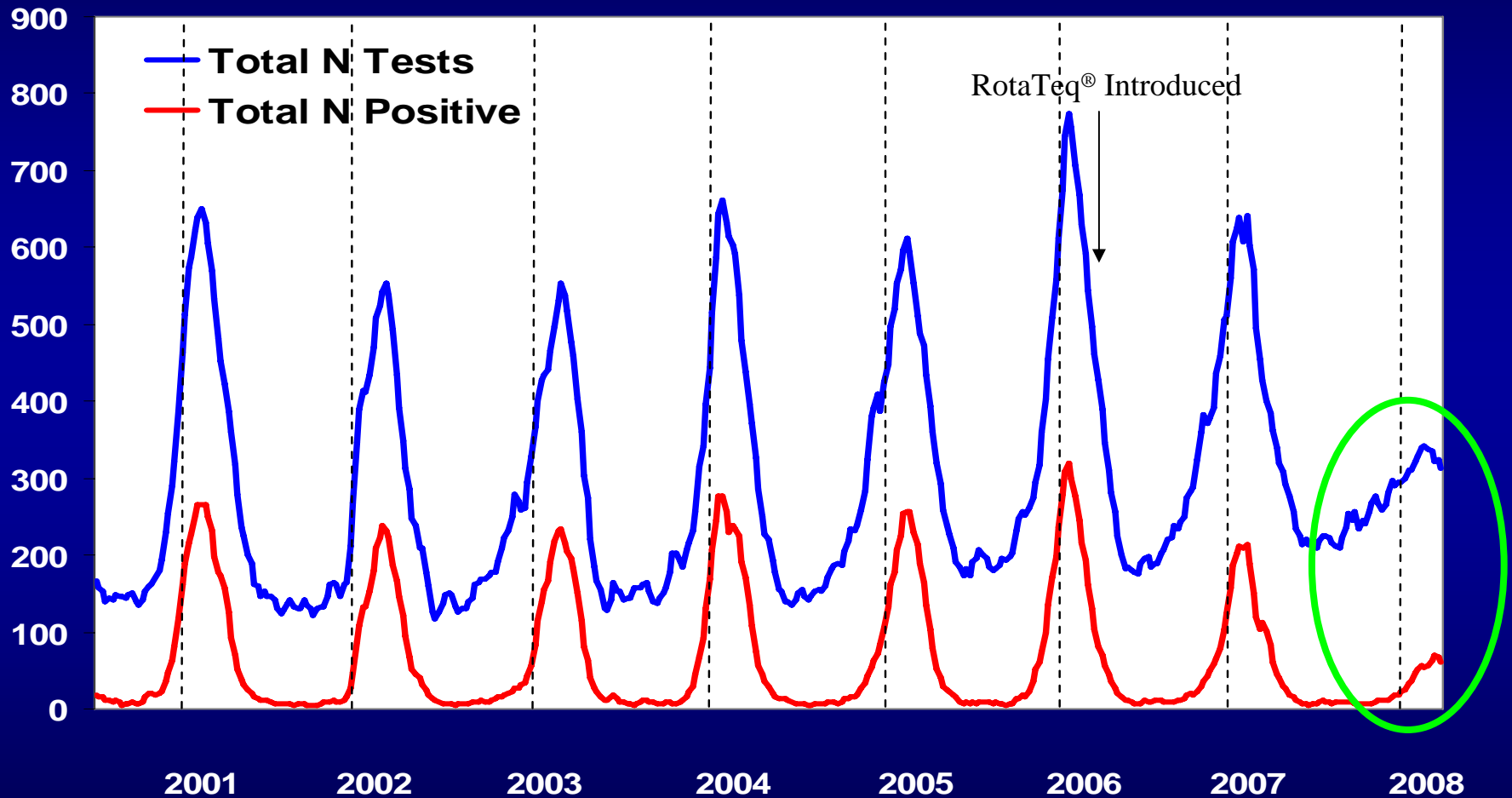
National Respiratory and Enteric Virus Surveillance System (NREVSS)

- **Passive lab surveillance**
- **Real-time data for several viruses**
- **Weekly reporting by virus and test type:**
 - **# specimens tested**
 - **# positive**
- **Since 1991, a median of 66 labs reported rotavirus annually**

Proportion of rotavirus positive tests from NREVSS labs, 1991-2006, compared with 2007-2008, by week of year



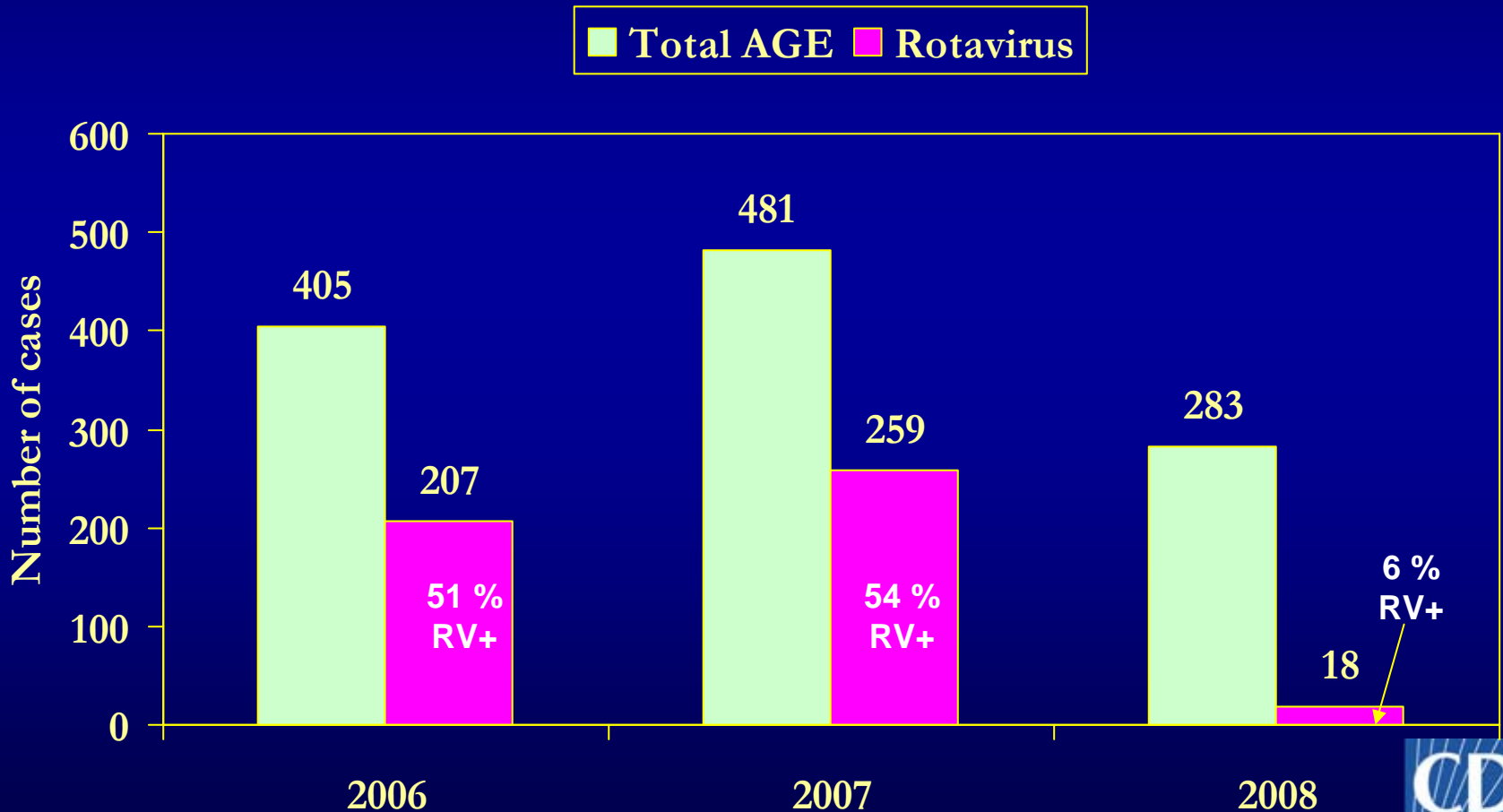
Number of positive and total rotavirus tests from 32 continuously reporting NREVSS labs, 2000-2008, 3 week moving average



New Vaccine Surveillance Network (NVSN)

- **Prospective surveillance for acute gastroenteritis (AGE) among children <3 years since 2006**
- **Inpatient, ED, outpatient clinic data**
- **Fecal specimens tested for rotavirus**
- **Epidemiologic and clinical data collected**

Total AGE and Rotavirus AGE cases in NVSN, January-April, 2006-2008



Limitations

- **2007-2008 season still ongoing**
- **Delays in reporting**
- **Rotavirus testing not routine**
- **May not be representative of the US**

Concluding Remarks

- **2007-2008 rotavirus season delayed by 2-4 months**
- **Proportion of positive tests lower than any of the previous 15 years**
- **Hospitalizations, ED visits, and outpatient clinic visits all observed reductions in rotavirus cases from the previous 2 years**

Concluding Remarks (2)

- **Changes coincide with increasing rotavirus vaccine coverage**
- **Changes appear to be greater than expected based on direct protective effects of vaccination alone**
- **Ongoing surveillance and epidemiologic studies are needed**

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