Progress of research agenda to inform potential policy reconsideration in 2018 for PCV13 use among adults
Key questions to be answered before 2018 review

- Is PCV13 use among adults ≥65 years old preventing disease?

- To what extent are the observed benefits driven by adults PCV13 use (direct effects) vs. pediatric PCV13 use (indirect effects)?

- What benefits would we expect from continued PCV13 use among adults?
Impact on IPD observed to date

- Changes in PCV13-type IPD burden among adults ≥65 years old
  - PCV13-type IPD rates declined through 2014 due to indirect PCV13 effects
  - No additional declines in annual rates observed in 2015-2016
  - PCV13-types account for 22% of IPD in 2016 compared to 43% pre-PCV13

- Changes in IPD among adults <65 years old with and without indications for PCV13 use
  - PCV13-type IPD burden continues to decline among adults with and without current indications for PCV13 use
  - Similar reductions among those with chronic medical conditions, current indications for PPSV23-only use
Impact on nasopharyngeal colonization

- **Changes among children ≤5 years old**
  - Significant reduction in PCV13-type carriage rates, mostly due to 19A and 6C
  - No change in overall pneumococcal carriage rates
  - PCV13-types remaining in 2015-16: 19A, 19F, and 3

- **Carriage among adults ≥65 years old**
  - Very low overall and PCV13-type carriage rates
  - Difficult to attribute to direct vs indirect PCV13 effects given low vaccine type carriage rates
  - PCV13 types carried (19F, 19A, 3)
Monitoring vaccine uptake of PCV13 and PPSV23 in the target population of adults ≥65 years old

- PCV13 and PPSV23 coverage assessment since 2014 recommendations
  - CMS data for PCV13 and PPSV23 claims to estimate coverage among Medicare part B beneficiaries
  - Analysis of vaccine sales and IMS claims to estimate PCV13 coverage

1 QuintilesIMS, Anonymized Patient-Level Data (APLD), Oct 2016 (includes diagnostic and prescription utilization claims for PCV13)
2 Pfizer, Inc. internal sales data for PCV13, Oct 2016
Percentage of Medicare beneficiaries with claims submitted for PCV13 and PPSV23, adults ≥65 years old, CMS Claims Data 2009-2016
Estimated PCV13 Adult Cumulative Uptake, Adults >65 years old, IMS Claims Data and Manufacturer Sales, Aug 2014–May 2017

Slide courtesy of Pfizer
Updates during the upcoming ACIP meetings

- Vaccine effectiveness study among adults ≥65 years old against VT IPD; two case-control evaluations
  - Population-based non-IPD controls
  - Medicare part B beneficiaries

- PCV13 impact on community acquired pneumonia
  - All cause CAP (administrative data, ICD codes)
  - Pneumococcal pneumonia (pneumococcal UAT+)
  - Vaccine type pneumococcal pneumonia (serotype-specific UAD)

- Model estimating public health impact and cost-effectiveness of different policy options
  - No PCV for adults ≥65 years old
  - Expanding indications for adults <65 years old