

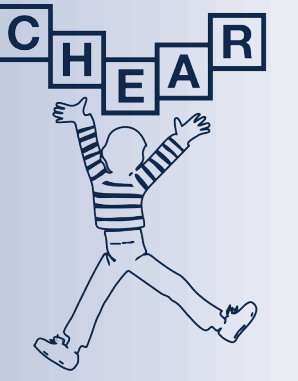


Patterns of Pneumococcal Vaccination in Incident Diabetics

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Background

- Pneumococcal polysaccharide (PPSV23) vaccination is recommended for adult diabetics. However, it is unclear how many diabetics are vaccinated.

Objective

- We examined rates of pneumococcal polysaccharide vaccination in adult diabetics.

Methods

- Claims Analysis using data from the MarketScan research database
- A cohort was created of patients with 10 years of continuous enrollment from 2005-2014
- A two-year washout period from 2003-2004 was used to identify individuals without a prior diagnosis of diabetes.
- The cohort includes 8,690,965 person-years of observations.
- We examined rates of pneumococcal polysaccharide vaccination (PPSV23) in diabetics and non-diabetics
- Rates of vaccination were compared between incident (diagnosis in that year) and prevalent diabetics.
- Rates were compared over time

Funding Statement :

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Results

- About 6% of the patient-years in observation were of patients with a diabetes diagnosis. Patients with a diabetes diagnosis were older and had more comorbidities:

Table 1. Demographic Characteristics of Cohort (%)

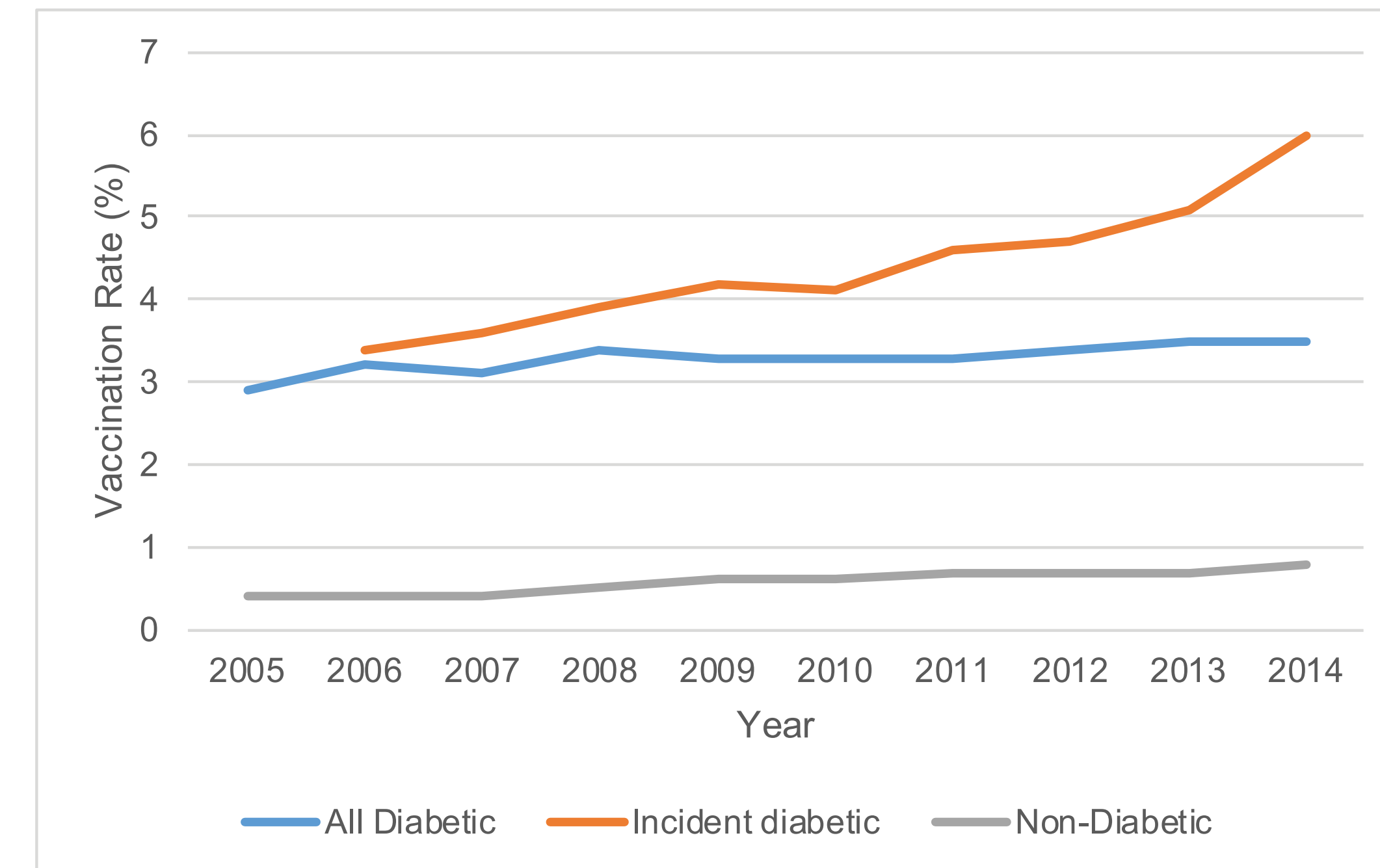
	Diabetic (506,770 person-years)	Non-diabetic (n=8,184,195 person-years)
Age (mean (SD))	51.5 (6.6)	47.4 (7.8)
Comorbidities (%)		
Myocardial Infarction	1.03	0.30
Congestive Heart Failure	2.49	0.62
Peripheral Vascular Disease	2.70	0.79
Cerebrovascular Disease	2.92	1.12
Dementia	0.05	0.02
Chronic Pulmonary Disease	9.24	6.13
Connective Tissue Disease-Rheumatic Disease	1.66	1.25
Peptic Ulcer Disease	0.47	0.28
Mild Liver Disease	4.24	1.49
Paraplegia and Hemiplegia	0.27	0.15
Renal Disease	2.57	0.55
Cancer	4.24	2.90
Moderate or Severe Liver Disease	0.19	0.04
Metastatic Carcinoma	0.35	0.22
AIDS/HIV	0.22	0.18

- The rates of pneumococcal vaccination in this cohort of adults were low, but increasing. Rates of pneumococcal vaccination were higher for diabetics than non-diabetics and higher for incident diabetics than the overall diabetic population.
- Rates of pneumococcal vaccination increased over the study period.
 - From 0.4% in 2005 to 0.8% in 2014 for non-diabetics
 - From 2.9% in 2005 to 3.5% in 2014 for all diabetics
 - From 2.9% in 2006 to 6.0% in 2014 for incident diabetics

Discussion

- Rates of pneumococcal vaccination are low, but increasing. Although rates are higher for incident diabetics, they were still at 6% or lower, well below public health goals.

Figure. Pneumococcal Vaccination Rate (%) by Year and Diabetes Status



Conclusions

- Although pneumococcal vaccination rates are increasing among adults, they are still quite low, especially in incident diabetics, a population recommended for vaccination.
- Future research should examine...
 - correlates with low rates of pneumococcal vaccination
 - consequences of low vaccination in terms of pneumococcal disease
 - interventions to increase rates of pneumococcal vaccination