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Nationwide Trends in Acute and Chronic Pancreatitis Among Privately Insured Children and Non-Elderly Adults in the United States, 2007–2014

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Abstract

Background & Aims—Epidemiologic analyses of acute and chronic pancreatitis (AP and CP) provide insight into causes and strategies for prevention, and affect allocation of resources to its study and treatment. We sought to determine current and accurate incidences of AP and CP, along with the prevalence of CP, in children and adults in the United States.

Methods—We collected data from the Truven MarketScan Research Databases of commercial inpatient and outpatient insurance claims in the United States from 2007 through 2014 (patients 0–64 years old). We calculated the incidences of AP and CP, and prevalence of CP, based on International Classification of Diseases, Ninth Revision (ICD-9) diagnosis codes. Children were defined as 18 years or younger and adults as 19 to 64 years old.

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Zachary M. Sellers, MD, PhD: study concept and design, analysis and interpretation of data, statistical analysis, drafting of the manuscript, study supervision.

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Results—The incidence of pediatric AP was stable from 2007 through 2014, remaining at 12.3/100,000 persons in 2014. Meanwhile the incidence for adult AP decreased from 123.7/100,000 persons in 2007 to 111.2/100,000 persons in 2014. The incidence of CP decreased over time in children (2.2/100,000 persons in 2007 to 1.9/100,000 persons in 2014) and adults (31.7/100,000 persons in 2007 to 24.7/100,000 persons in 2014). The prevalence of pediatric and adult CP was 5.8/100,000 persons and 91.9/100,000 persons, respectively in 2014. Incidences of AP and CP increased with age; we found little change in incidence during the first decade of life, but linear increases starting in the second decade.

Conclusions—We performed a comprehensive epidemiologic analysis of privately insured non-elderly adults and children with AP and CP in the United States. Changes in gallstone formation, smoking, and alcohol consumption, along with advances in pancreatitis management, may be responsible for the stabilization and even decrease in the incidences of AP and CP.

Keywords

pancreas; inflammation; trends; epidemiology

INTRODUCTION

Globally, pancreatitis occurred in over 17 million individuals in 2013, making it the 35th most common disease/injury in the world, an incidence nearly twice that of acute myocardial infarctions.¹ In the United States (U.S.), the annual incidence of acute pancreatitis (AP) is estimated to be approximately 40/100,000 persons, resulting in over 130,000 new cases per year. Chronic pancreatitis (CP) occurs less frequently, reported at about 8/100,000 persons.² Historically, pancreatitis has been considered primarily an adult disease, strongly associated with alcohol use and gallstones. However, pediatric pancreatitis has received greater attention over the last decade. Based on single academic center studies, the incidence of pediatric AP in the U.S. is reported to be between 3.6 and 13.2 per 100,000 persons annually, increasing in all age groups.^{3–5} This trend mirrors what has been observed in adults.^{6–8} These trends have been linked to greater clinical awareness, increased diagnostic testing, and rising prevalence of obesity. In 2012, AP was identified as the number one cause of hospitalization for gastrointestinal diseases in the U.S., costing an estimated \$2.6 billion in inpatient costs.⁹ Beyond its direct monetary impact, pancreatitis has a substantial negative impact on the quality of life of children and adults.¹⁰

Previous population studies examining the epidemiology of pancreatitis have used inpatient databases to determine the incidence and prevalence of AP and CP. While the majority of individuals with AP are admitted, those with mild cases may be managed in the outpatient setting. In fact, one study reported that 23% of children with AP were discharged home from the Emergency Department (ED).¹¹ Thus, inpatient data samples do not completely capture all individuals with AP. For CP, this disparity may be even larger, with many individuals primarily receiving outpatient care. To increase the accuracy of epidemiological estimates for AP and CP, examination of both inpatient and outpatient medical services is necessary.

Accurate epidemiological estimates of AP and CP are important in shaping the medical care of this disease. Health care resource allocation, federal and private research funding, and

medical provider training priorities are all influenced by disease occurrence. Thus, to provide comprehensive and current epidemiology of pancreatitis in the U.S., we examined the incidences and prevalence of AP and CP in a nationwide employer-based insurance claims database containing inpatient and outpatient encounters. The secondary aim of our study was to perform sub-analysis examining only inpatient data to compare our results to prior studies. Our results provide current epidemiological trends in AP and CP and will help shape the national narrative on pancreatic disease in the U.S.

METHODS

Data source

The data originated from the Truven Health MarketScan Commercial Claims and Encounters (CCAЕ) database, a subset of the Truven MarketScan Research Database. The CCAЕ database consists of de-identified outpatient, inpatient, and pharmaceutical claims of approximately 40–50 million enrollees with employer-sponsored coverage each year. Patients in this database include active employees, early retirees, COBRA (Consolidated Omnibus Budget Reconciliation Act) continues and dependents of ages 0–64 years from all 50 states of the U.S. We analyzed the annual enrollment, inpatient and outpatient claims from 2007–2014.

Participants

Inclusion criteria were enrollees with a diagnosis of AP (ICD-9 577.0) or CP (ICD-9 577.1) between 2007–2014. Four diagnosis codes were reviewed for each line item of both inpatient and outpatient encounters. Data was aggregated from the item line level such that, on any given service date, a patient could have one or more diagnoses of AP and/or CP. Patients were defined as having AP or CP based on the AP or CP diagnosis for that service date. Patients who had both CP and AP diagnoses on the same service date could not be classified concretely and were omitted from the analysis. This resulted in the loss of 0.4% from the original cohort (1,741 patients; 97% adults (0.4% adult cohort) and 3% children (0.4% pediatric cohort)). Years are calculated as the year of the service date. The remaining cohort of patients with AP or CP contained 426,604 people (Figure 1).

Design

The cohort was divided into four groups: pediatric AP, pediatric CP, adult AP, and adult CP. Pediatric groups were defined by INSPPIRE criteria,¹² with the first episode of AP or CP at 18 years or younger. The adult groups were defined as being 19 to 64 years.

Outcome Measures

The main outcome measures were incidence and prevalence. Incidence was calculated as the number of patients with AP or CP who had not previously been diagnosed as such. The incidence date was determined by the first service date (inpatient or outpatient) with a diagnosis of AP or CP. Incidence rate per year was calculated as the number of patients with their first diagnosis in a given year divided by the number of patients enrolled in the database for that year. Prevalence for CP was calculated as the number of patients with CP prior to a given year divided by the number of patients enrolled in that given year.

Statistical analysis

Comparison of descriptive data between pediatric and adult cohorts was done with STATA using Student's T-Test. The significance of regression lines was performed with a linear Pearson analysis using SigmaPlot 11. Significance was determined by $P < 0.05$.

RESULTS

Cohort

From 2007-2014, there were 141,017,841 unique patients in the database, with 113,653,591 patients having outpatient encounters and 13,992,248 with inpatient encounters (Figure 1). Patient data came from all 50 states (Figure 2). There was near equal gender distribution (53% female, 47% male) across all years; ages ranged from 0–64 years. Approximately 26.2% of data came from patients 18 years or younger, with 73.8% from those 19 to 64 years. Within the database, AP or CP occurred in 426,604 patients, with 309,436 of those having an outpatient diagnosis and 201,184 an inpatient diagnosis. From this cohort, 14,653 pediatric and 411,951 adult patients had a diagnosis of AP or CP (Table 1). Of those with AP, 12.0% of children and 14.3% of adults went on to have a diagnosis of CP during the study period.

AP Incidence

Using these pediatric and adult cohorts, we calculated longitudinal incidences for AP. In adults, AP decreased over time ($P=0.044$), dropping from 123.7/100,000 persons in 2007 to 111.2/100,000 persons in 2014. In children, there was a steady incidence of AP, ranging from 11.6 to 13.5/100,000 persons per year, with the 2014 incidence being 12.3/100,000 persons (Figure 3A). Given the decline in adult AP incidence, we calculated AP incidence as a function of age to determine if this decline occurred equally at all ages, or was specific to a defined group. AP incidence became greater with advancing age ($P < 0.0001$); it was low and stable during the first decade of life and increased thereafter. The downtrend in AP incidence between 2007 and 2014 was a result of decreased incidence amongst older individuals (Figure 3B).

To compare our results with prior studies, which only examined inpatient admissions, we performed two separate analyses using only inpatient admissions with AP. In adults, the incidence of AP admission decreased from 65.1/100,000 persons in 2007 to 60.1/100,000 persons in 2014, although this was non-significant over the entire time ($P=0.146$). However, between 2010–2014, there was a clear and significant decline ($P=0.004$) (Supplemental Figure 1A). In children, the incidence of AP admission was similar between 2007–2014, ranging from 6.2–7.1/100,000 persons, with a 2014 incidence of 6.4/100,000 persons. Others have also examined AP incidence by measuring the number of inpatient AP admissions from total hospital admissions. In adults, there was a near-significant increasing trend ($P=0.055$) in AP hospital admissions from 2007-2014, ranging from 291.9-309.3/100,000 admissions. Pediatric AP admissions were similar from 2007-2014, ranging from 40.2-50.3/100,000 admissions, with an incidence of AP admissions amongst all hospital admissions of 42.7/100,000 admissions in 2014 (Supplemental Figure 1B).

CP Incidence and Prevalence

Subsequently, we calculated incidences and prevalence for pediatric and adult CP. As seen in Figure 4A, the incidence of CP in adults significantly decreased from 2007–2014 ($P=0.006$), with an incidence of 31.7/100,000 persons in 2007 versus 24.7/100,000 persons in 2014. The prevalence of adult CP in 2014 was 91.9/100,000 persons. Similarly, the incidence of pediatric CP significantly decreased from 2007–2014 ($P=0.010$), decreasing from 2.2–1.9/100,000 persons. Pediatric CP prevalence was 5.8/100,000 persons in 2014 (Figure 4A). Given the decline in CP incidence amongst both children and adults, we calculated age-specific CP incidences. Similar to AP, CP began to steadily increase in the second decade of life and increased with advancing age ($P<0.0001$). Likewise, the greatest differences in CP incidence between 2007 and 2014 occurred at the most advanced ages (Figure 4B).

Similar to AP, we performed a separate analysis of CP incidence using inpatient admissions amongst the general population of total admissions. From 2007–2014, the incidence of adult CP admissions decreased significantly ($P=0.046$), changing from 7.4/100,000 persons in 2007 to 6.1/100,000 persons in 2014. This decreasing trend was even more prominent from 2009–2014 ($P=0.0002$). The incidence of pediatric CP admissions ranged from 0.5–0.9/100,000 persons, with a 2014 incidence of 0.5/100,000 persons. This was not significantly different across the entire time period ($P=0.632$), but was from 2009–2014 ($P=0.006$) (Supplemental Figure 2A). Analysis of the number of CP admissions amongst all inpatient admissions showed similar trends for both children and adults (Supplemental Figure 2B). The incidence of CP amongst all admissions was 3.5–5.8/100,000 admissions in children (3.5/100,000 in 2014) and 32.7–36.9/100,000 admissions in adults (31.2/100,000 in 2014). These changes were not significant in the pediatric ($P=0.429$) or adult cohorts ($P=0.197$). In contrast, there was a significant decline in both pediatric ($P=0.009$) and adult ($P=0.001$) CP admissions amongst all hospitalizations during 2009–2014.

DISCUSSION

Over the last several decades multiple studies have examined the occurrence of pancreatitis. However, to date, all epidemiological studies performed in the U.S. have relied solely on inpatient databases. Hospital admission with AP is common due to typical symptoms of anorexia, dehydration, and refractive nausea and pain. Additionally, when *nil per os* was the mainstay treatment for AP, hospital admission was necessary. However, in the current era of early enteral feeding with pancreatitis, patients with mild cases who can tolerate oral hydration and pain control may be managed as outpatients. A recent Pediatric ED study found that 23% of children with AP were discharged home.¹³ The problem becomes larger for CP, where the management of chronic pain and nutrition primarily occur in the outpatient setting. Our study is the first to utilize nationwide inpatient and outpatient databases to calculate the incidences and prevalence of AP and CP in the U.S., resulting in increased accuracy of pancreatitis epidemiology.

Acute Pancreatitis

From our comprehensive epidemiological analysis, we found that the incidence of AP was 12.3/100,000 persons in children and 111.2/100,000 persons in non-elderly adults in 2014.

Similar to prior studies,^{2, 14} we observed age-dependent increase in AP, with an increase in incidence occurring at about 10 years of age. We found adult AP to be higher than previously reported. Using only inpatient admissions, Frey et al.¹⁵ and Yadav et al.¹⁶ estimated AP incidence to be 38.1 and 58.2/100,000 persons, respectively. Our sub-analysis with inpatient admissions resulted in an AP incidence of 60.1/100,000 adults, similar to these prior reports. The inclusion of outpatient encounters likely allowed us to identify individuals with mild, self-limiting AP, managed in an outpatient setting, which may occur in as much as 50% of cases.¹⁷

Most pediatric pancreatitis studies report the absolute number of cases in a hospital or region. Until recently, the only other study to calculate population incidence was that by Morinville et al., who reported the number of AP admissions at a single pediatric tertiary care center divided by the estimated hospital catchment area. With this, they found an incidence of 13.2/100,000 children in 2004.¹⁸ Recently, Hornung et al. performed a similar study, except examining AP admissions from 2010-2014. They reported an estimated pediatric AP incidence of 6.6/100,000 children in 2014.¹⁹ Using inpatient admissions, we found an incidence of pediatric AP to be 6.4/100,000 in 2014, mirroring that of Hornung et al. Since the 1990s and early 2000s, there has been increased awareness about the development of pancreatitis in children (as evidenced by rising amylase and lipase testing^{18, 20}); providers outside of tertiary care academic centers are becoming increasingly comfortable caring for children with uncomplicated AP. Between 2006 and 2011, about half of all ED visits for pediatric AP were at non-teaching hospitals.¹³ Therefore, it is possible that the Morinville et al. dataset included a concentration of cases due to referral center bias, leading to an overestimation of pediatric AP incidence.

Over the last several decades, the consensus from many epidemiological studies has been that the incidence of adult AP is rising. We are the first to report a decrease in AP incidence, however, others have noted a recent stabilization in AP incidence. There is little data post-2010, but Munigala et al. observed a stabilization in AP hospital discharges from 2009 to 2010, after a steady increase since 1983.²¹ Likewise, Krishna et al. found minimal change in AP hospital admissions from 2010-2012.²² Many epidemiological studies report AP incidence as the number of AP admissions (discharges) divided by total admissions (discharges), with the outcome being percent AP admissions (discharges). This may reflect actual incidence of AP, but may also be influenced by provider admission practices. In fact, when we looked at the number of AP admissions per 100,000 admissions, we found a near-significant increasing trend in AP admissions, similar to prior studies.

Amongst adults, the number one and two causes for AP are gallstones and alcohol use, respectively. In Allegheny County (Pennsylvania), Yadav et al. showed that gallstone disease constitutes an increasing proportion of AP with advancing age.¹⁶ Krishna et al. reported a decrease in the odds ratio of gallstone-related AP in the U.S. between 2002-2005 and 2009-2012.²² Likewise, there was a decrease in biliary procedures performed in the U.S. from 1998-2013.²³ With all major U.S. gastroenterological and pancreatology societies advocating for cholecystectomy on index admission (or soon after) for biliary pancreatitis,²⁴⁻²⁸ a drop in biliary-related AP admissions is expected. The contribution from alcohol consumption is more difficult to interpret. Alcohol consumed per capita in the U.S. has

fluctuated over time, dramatically increasing from the 1930s to the early 1980s, declining during the 1980s and early 1990s, and then increasing again from the late 1990s. Since then, the amount of alcohol intake per capita in the U.S. has remained relatively stable. In 2007, per capita ethanol consumption was 2.31 gallons, compared to 2.32 gallons in 2014.²⁹ So, while the last several decades showed an increasing trend in AP, due to changes in risk factors associated with AP, we may now see a stabilization, and even decrease, in this trend.

We did not observe a decrease in pediatric AP. However, it is notable that we also did not see an increase, as previously reported from 1993-2004.¹⁸ Rising rates of pediatric AP have been attributed to increasing childhood obesity (thereby increasing gallstone formation), but have also been hypothesized to be related to increased awareness of pediatric pancreatitis.^{18, 20} While the prevalence of childhood obesity significantly increased from 1999–2014 (13.9% to 17.2%), it remained stable from 2003–2014 (17.1% to 17.2%).³⁰ We are not the only ones to suggest a change in the rising trends of pediatric AP in the U.S. Pant et al. observed a stabilization in pediatric AP-associated ED visits from 2006–2011¹³ and Hornung et al. found no change in pediatric AP admissions at a large, tertiary care pediatric hospital from 2010–2014.¹⁹

Chronic Pancreatitis

We found a markedly higher incidence of CP in non-elderly adults than what was previously reported by Yadav et al. in Olmsted County (Minnesota) (4.35/100,000 persons from 1997-2006).³¹ The discrepancy could be due to our larger patient sample (106 vs. 80,689 cases), differing racial demographics (~86% vs. ~72% White in the U.S.³²), or the ability of Yadav et al. to verify a correct diagnosis of CP with actual patient data (as opposed to our reliance on diagnosis coding). However, when examining only inpatient admissions for the entire population, we found a similar CP incidence in 2014 at 6.1/100,000 persons, suggesting that our higher incidence is likely due to the inclusion of outpatient encounters. Given the interrelationship between AP and CP,³³ it is not surprising that we also found a decrease in the incidence of CP, although the degree of decline was larger than AP. Alcohol and smoking are the primary identifiable causes of CP in adults. Alcohol use, often accompanied by cigarette smoking, is by itself a risk factor for CP, but together with smoking, imparts an even greater risk. The prevalence of smoking in the U.S. decreased by an estimated 13% between 2007 and 2012, with an associated increase in individuals undertaking smoking cessation.³⁴

We also found the incidence of pediatric CP to be greater than previously reported. There are few population-based studies on CP in children, but both Yadav et al. (0-34 years-old) and Spanier et al. (<20 years-old) found an incidence of 0.5/100,000 persons in Olmsted County and the Netherlands, respectively.^{7, 31} When we examined the incidence of inpatient admission for CP amongst our total national cohort, we found the incidence of pediatric CP to be similar at 0.5/100,000 children in 2014. Thus, the discrepancy in our studies is likely attributable to our use of outpatient data which, as indicated earlier, is where most CP management occurs. Like adult disease, pediatric CP also showed a statistically significant decrease, although this was numerically less impressive (2.2 to 1.9/100,000 persons). With genetic causes responsible for nearly 75% of pediatric CP cases,³⁵ there is likely to be

minimal variation in CP incidence. With the continuum disease model,³³ improvements in recurrent AP (RAP) management is expected to decrease the progression of RAP to CP. With our inability to accurately determine RAP from ICD-9 coding, we cannot comment on trends in RAP, however, ongoing longitudinal epidemiological studies on RAP and CP in children and adults should shed light on this.

Limitations

The inherent limitation in the use of a de-identified database is the inability to verify accurate diagnosis coding. This is especially difficult with AP and CP, given that individuals can meet Cambridge criteria for CP and continue to experience AP episodes. This is also problematic when coding for RAP since it is not clearly defined within ICD-9 coding. In ICD-9-CM Sixth Edition, “577.0 Acute Pancreatitis” includes “Pancreatitis: acute (recurrent)”, while “577.1 Chronic Pancreatitis” includes “Pancreatitis: recurrent” and “Pancreatitis: relapsing.” Coding RAP as CP would lead to an overestimation of CP in our study.

While our cohort was a nationwide sample, it did not include those 65 years or older, on Medicaid, or those on non-employer-based insurance plans. Using an employer-based insurance database captures the largest group of individuals in the U.S. under 65 years-old (2014: 47% of children, 59% of adults).³⁶ However, Medicaid makes up the second largest insured group of non-elderly at 22%.³⁶ This sampling bias may be more profound for pediatric pancreatitis where, despite accounting for only 30% of the population, more children were enrolled in Medicaid than adults in 2014 (34,805,500 vs. 27,417,700).³⁷ Additionally, disability and unemployment in CP patients, which was reported to be 27.1% in the NAPS2 study (North American Pancreatitis Study 2),³⁸ may result in increased reliance on Medicaid and/or disability Medicare, leading to an underestimation in the prevalence of CP in our study. With the increasing incidence of AP and CP with advancing age, the omission of individuals 65 years or older also leads to an underestimation in the incidence and prevalence of adult pancreatitis. Future work combining employer-based insurance, Medicaid, and Medicare databases would provide even more thorough coverage and further increase the accuracy of the incidence of pancreatitis in the U.S.

Conclusion

We have provided a comprehensive and current epidemiological analysis of AP and CP in the U.S. for privately insured children and non-elderly adults. With changing human health behaviors and advances in pancreatitis clinical management, we have observed a stabilization, and even a decrease, in the incidences of AP and CP. Despite falling incidences, due to decreased mortality, the prevalence of CP is increasing and CP remains a substantial burden on patients, families, and the U.S. healthcare system.²² Ongoing research into the pathophysiology and management of pancreatitis in children and adults will continue the positive trends in decreasing pancreatic disease.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Abbreviations

AP	acute pancreatitis
CP	chronic pancreatitis
RAP	recurrent acute pancreatitis
US	United States
ED	Emergency Department
ICD-9	International Classification of Diseases

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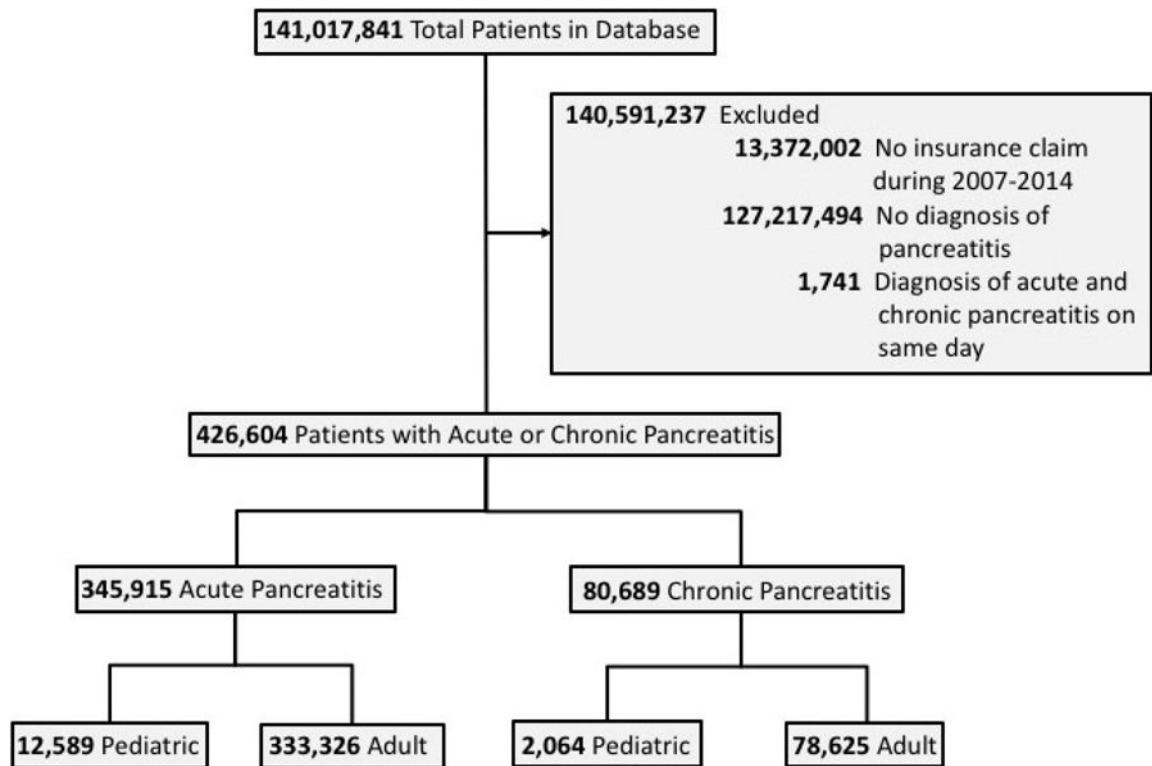


Figure 1. Determination of Pediatric and Adult Acute and Chronic Pancreatitis Cohorts
 Outpatient and inpatient encounters from 2007–2014 were used from the Truven Health MarketScan Commercial Databases. Using both databases resulted in a total of 141,017,841 unique patients. Patients with AP or CP were identified by their respective ICD-9 diagnosis codes. A subset of patients had dual AP and CP codes on the same day. These represented 0.4% of the pancreatitis cohort and were excluded. These cohorts were further divided into pediatric or adult groups based on age at time of diagnosis.

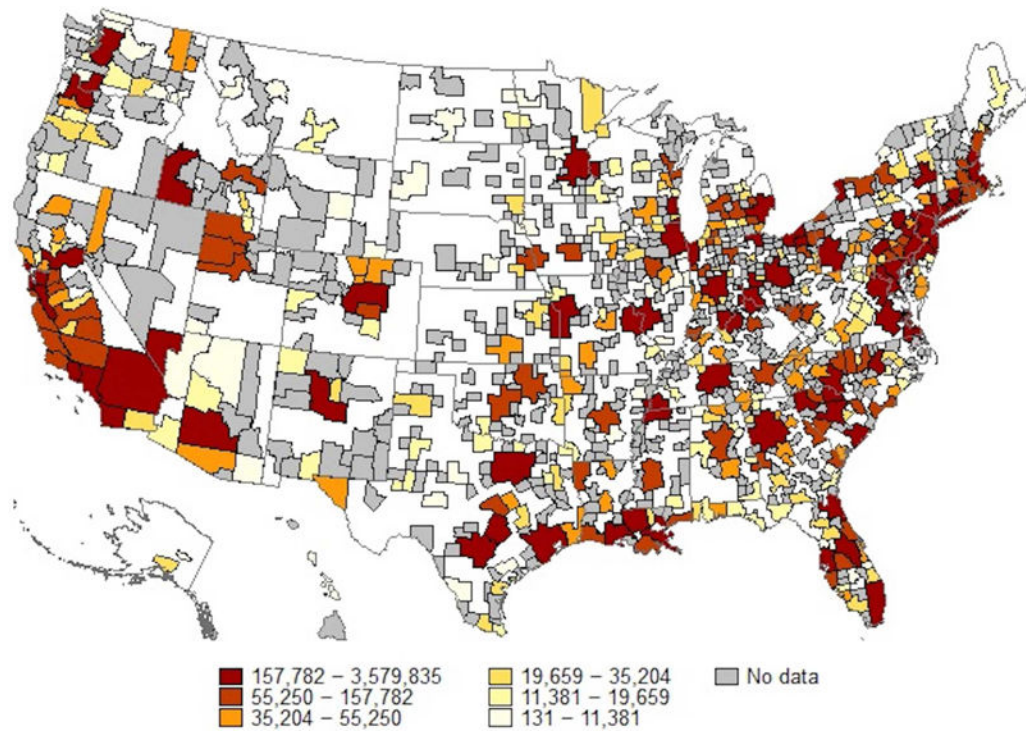


Figure 2. Geographical Distribution of Persons in the Truven Health MarketScan Commercial Databases in the United States in 2014

Each color represents the number of persons in the database that are located within each of the defined metropolitan statistical areas (MSA) in 2014. White regions represent rural areas where patients may have been present, but no MSA information exists, whereas grey regions represent places without patient representation in the database in 2014.

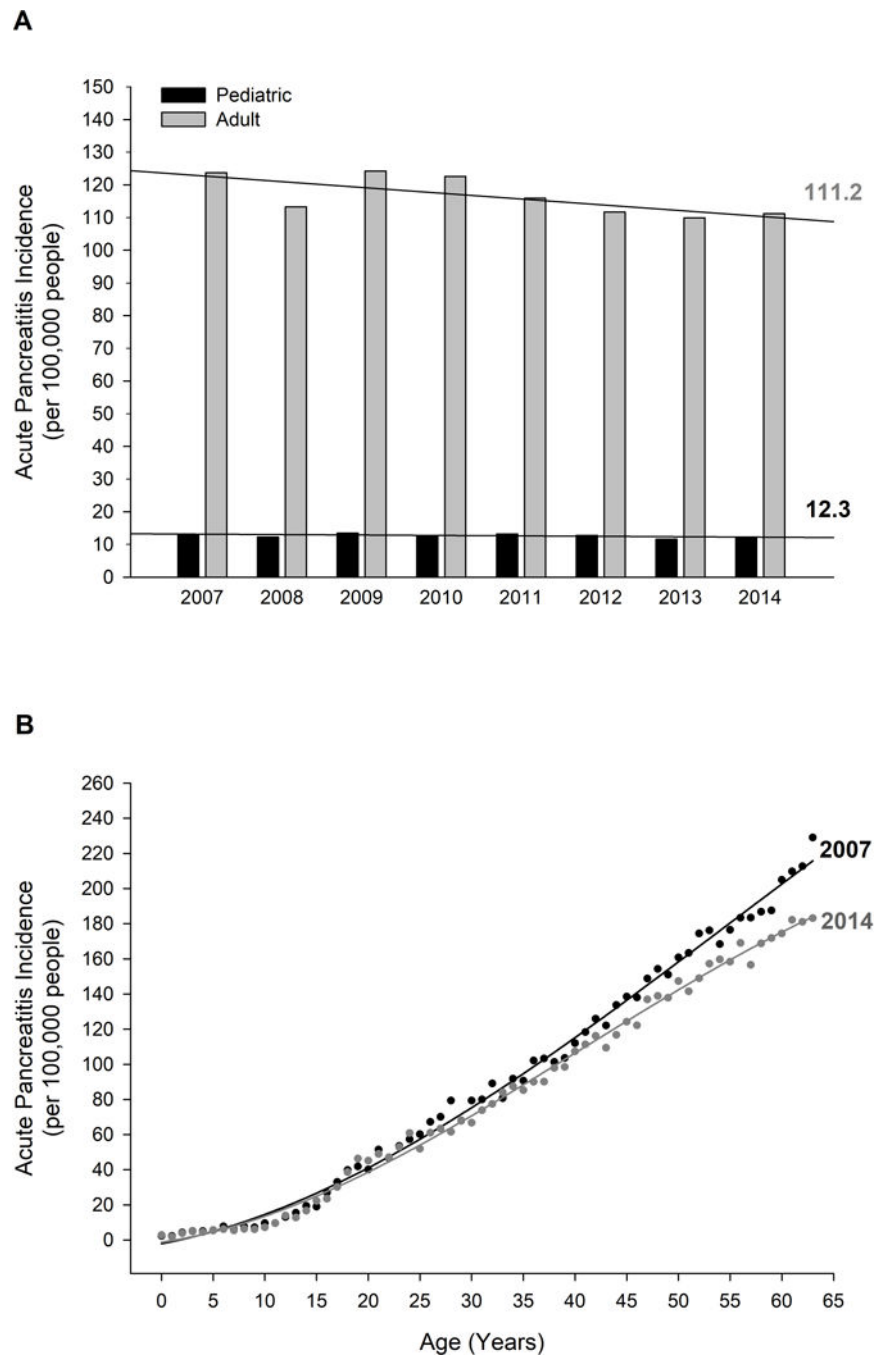


Figure 3. Trends in the Incidence of Pediatric and Adult Acute Pancreatitis from 2007–2014
A. Incidence of pediatric (black) or adult (grey) AP for each year from 2007–2014. Lines represent regression trend lines for each group with the incidence for 2014 represented in text. **B.** Comparison of AP incidence by age between 2007 (black) and 2014 (grey). Circles represent incidence for each age, with the line being the best fit regression line.

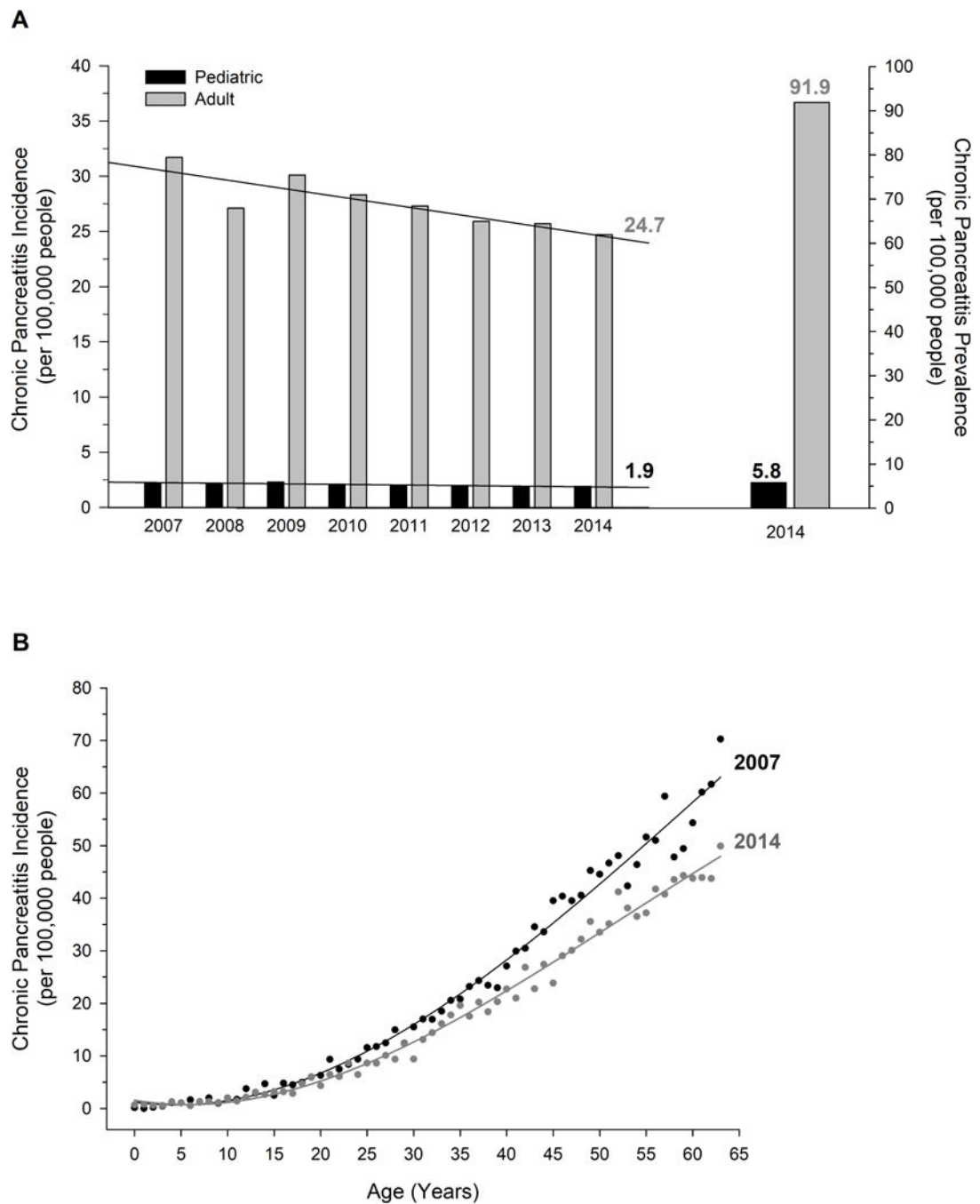


Figure 4. Trends in the Incidence of Pediatric and Adult Chronic Pancreatitis from 2007–2014

A. Left: Incidence of pediatric (black) or adult (grey) CP for each year from 2007–2014. Lines represent regression trend lines for each group with the incidence for 2014 represented in text. **Right:** Prevalence of (black) and adult (grey) CP in 2014. **B.** Comparison of CP incidence by age between 2007 (black) and 2014 (grey). Circles represent incidence for each age, with the line being the best fit regression line.

Table 1

Demographics of Pediatric and Adult Pancreatitis Cohorts

	Pediatric		Adult	
	Acute Pancreatitis	Chronic Pancreatitis	Acute Pancreatitis	Chronic Pancreatitis
Unique Patients	12,589	2,064	333,326	78,625
Mean Medical Patient (SD) Visits Per				
Outpatient	30.8 (65.0) *	58.4 (105.6) *	41.5 (68.7) *	63.6 (81.8) *
Inpatient	4.5 (12.6) *	2.6 (11.3) *	2.9 (6.0) *	1.4 (6.2) *
Mean AP or Visits (SD) CP-Associated				
Outpatient	2.2 (13.7)	7.5 (16.2) *	2.1 (6.2)	5.9 (12.8) *
Inpatient	2.1 (4.1) *	1.3 (4.2) *	1.9 (3.6) *	0.7 (3.3) *
Mean Length Stay (days) of	4.5 (13.3) *	2.7 (6.8) *	2.6 (6.4) *	1.4 (6.7) *
Mean Age (years) at Diagnosis	13.4 (4.6)	13.0 (4.6)	46.9 (11.8)	48.5 (11.6)
Gender (%)				
Female	55%	55%	53%	51%
Male	45%	45%	47%	49%
Geographic Region (%)				
Northeast	17%	18%	18%	18%
North Central (Midwest)	23%	22%	23%	23%
South	38%	36%	41%	40%
West	19%	21%	16%	16%
Unknown	3%	3%	3%	3%
Insurance Type (%)				
Comprehensive	1%	1%	2%	3%
EPO/PPO	65%	65%	65%	66%
HMO	14%	13%	12%	11%
POS (+/- capitation)	7%	7%	8%	8%
CDHP/HDHP	7%	7%	6%	6%
Other	6%	7%	7%	6%

*, P< 0.05 comparing Pediatric vs. Adult by Student's T-test.