

# MN Health Care Data Showcase: Putting Minnesota's Claims Data to Work

**National Association of Health Data Organizations  
MPLS, October 27, 2016**

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# Overview of Claims Data in Minnesota

- Aggregated claims data from health plans
- Detailed, patient-level claims data
  - Medicare data
  - Medicaid data
  - Hospital discharge data: all payer
  - MN All Payer Claims Data

# Hospital Discharge Data

- Epidemiological research, (utilization, charges, demographics):
  - Asthma
  - Diabetes
  - Injury
- Health system analysis
- Market analysis for business development

# Epidemiological Research

- What is the rate of hospital admission for diabetes, asthma, and a number various type of injuries?
- Are there patterns in hospital use for certain conditions, given patient demographics and provider access (geography, income)?
- What are the trends in hospital use for certain health care conditions?

# What Is the Health Care Market for Inpatient Behavioral Health Services?

**Table 3: Inpatient Admissions for Residents from Proposed Service Area**

	Number of Psychiatric Admissions	Percent of Psychiatric Admissions
Sanford Health Thief River Falls Medical Center	375	46%
Northwest Minnesota and North Dakota Hospitals with Inpatient Psychiatric Units	316	39%
Other Hospitals with Psychiatric Units	103	13%
Other Northwest Minnesota Hospitals	14	2%
<b>Total All Hospitals</b>	<b>808</b>	<b>100%</b>

Source: MDH analysis of hospital discharge data. Includes data from DHS Community Behavioral Health Hospitals.

- Assessment of volume of bed capacity uses
- Study of medical diagnoses for hospitalization
- Analysis of patient demographics and duration of hospitalization

# What are Patient Flow Patterns for Hospital Use in Minnesota?

Where Aitkin County Residents Received Hospital Inpatient Acute Care in 2006

Care Provided to Aitkin County Residents by:	County of Hospital	Number of Discharges	% of Total	Cumulative %
Riverwood HealthCare Center	Aitkin	1,153	45.8%	45.8%
Cuyuna Regional Medical Center	Crow Wing	219	8.7%	54.5%
Grand Itasca Clinic and Hospital	Itasca	166	6.6%	61.1%
Abbott Northwestern Hospital	Hennepin	151	6.0%	67.1%
St. Mary's Medical Center	St. Louis	119	4.7%	71.8%
St. Cloud Hospital	Stearns	112	4.4%	76.3%
St. Joseph's Medical Center	Crow Wing	107	4.2%	80.5%
University of Minnesota Medical Center, Fairview	Hennepin	52	2.1%	82.6%
St. Luke's Hospital	St. Louis	52	2.1%	84.6%
Miller-Dwan Medical Center	St. Louis	48	1.9%	86.5%
Other Minnesota Hospitals	Minnesota	327	13.0%	99.5%
Total Minnesota Hospitals	Minnesota	2,506	99.5%	
Hospitals in Other States		12	0.5%	100.0%
<b>Total Aitkin County Resident Discharges</b>	<b>All Locations</b>	<b>2,518</b>	<b>100.0%</b>	

Note: Normal newborns excluded

Origin of Patients Cared for by Aitkin County Hospitals in 2006  
Including: Riverwood Health Care Center

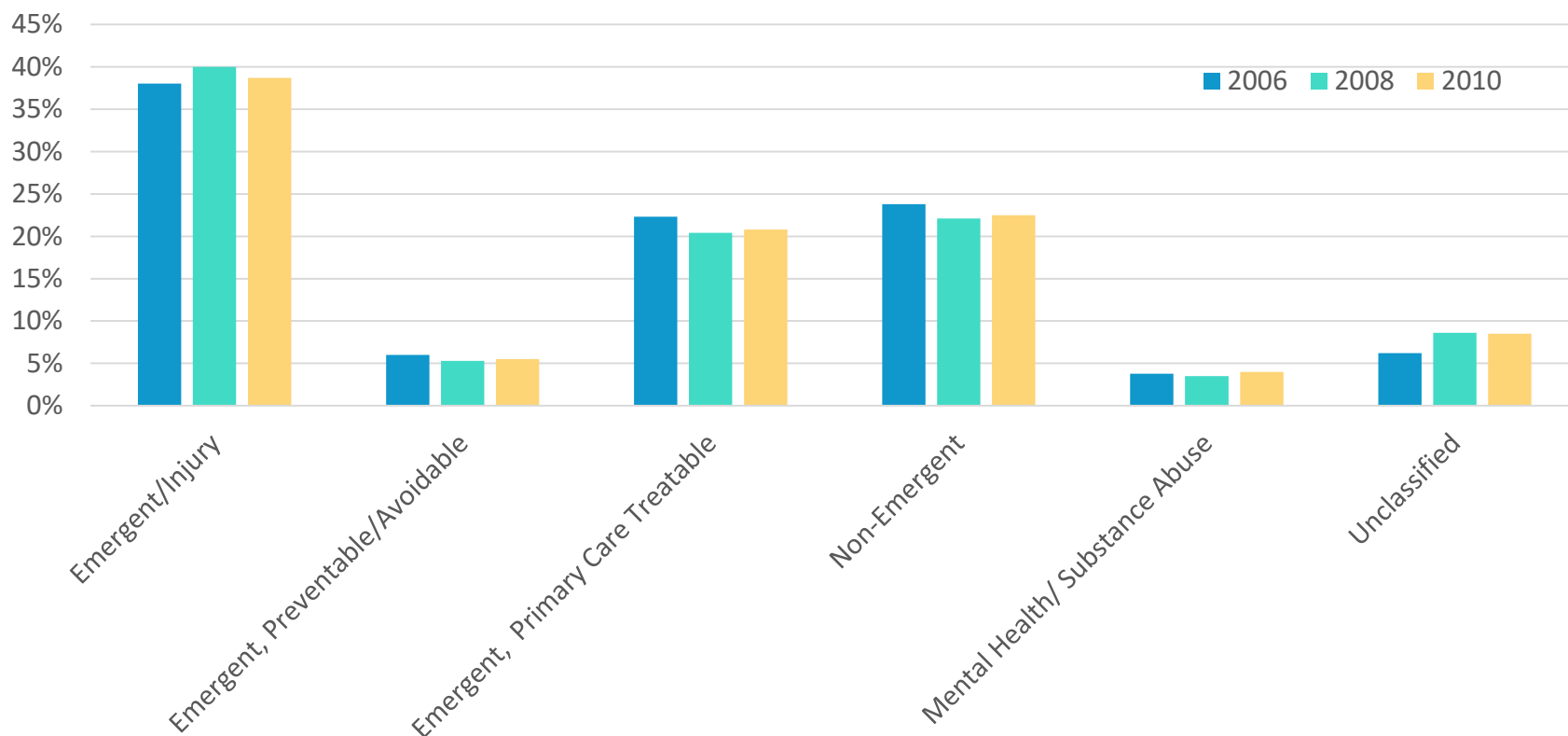
Patients' County/ State of Origin	Services Provided								Table Total	
	Med/Surg		Obstetrics		Pediatrics		Behavioral			
	Count	Row %	Count	Row %	Count	Row %	Count	Row %	Count	Row %
Aitkin	1,065	92.4	62	5.4	16	1.4	10	0.9	1,153	100.0
Crow Wing	49	84.5							58	100.0
Mille Lacs	42	89.4							47	100.0
Other States	13	92.9							14	100.0
Other Minnesota	103	89.6							115	100.0
Total Discharges	1,272	91.7	80	5.8	20	1.4	15	1.1	1,387	100.0

Note: Normal newborns excluded. Cells with fewer than ten cases omitted.

- Dependency ratio (share of inpatient stays relying on county x)
- Market shares (percent of hospitalization in region for given hospital)

Minnesota Department of Health,  
Health Economics Program,  
"Minnesota Hospital Patient Origin  
Report." December 2008

# Rates of Emergency Department Use in Minnesota



# Current Uses of the MN APCD



# MN APCD: Origin & Its (Somewhat) Circuitous Path

## Phase I Development

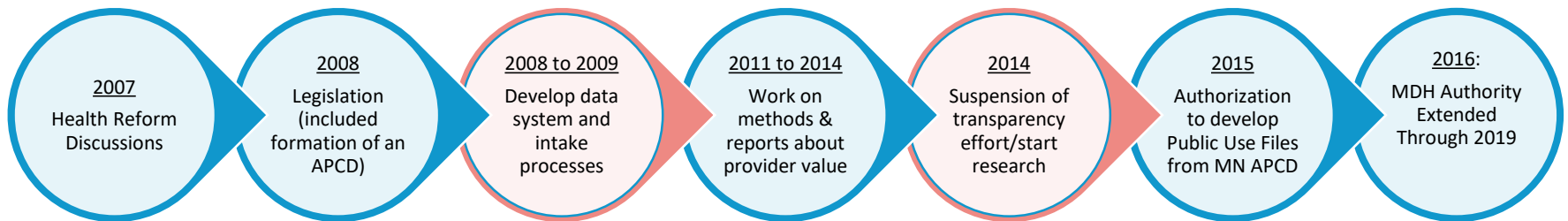
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## Phase II Provider Transparency

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## Phase III Health Policy Research

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### Legislative Focus

- Provider transparency
- Public Health
- Quality measurement
- Delivery system reform
- Payment reform

# Permitted Uses of the MN APCD Through 2019

- MN Legislature is taking an intentionally cautious approach
- Access limited to MDH for specific, but broad authorized uses
- Health care providers may not be identified directly or indirectly
- But: Public Use File process begun in 2016
  - Three initial files
  - Evolving set of content and vintages of data



# Select Current Analyses

- Who delivers chronic pain management services in MN?
- What is the burden of chronic disease in MN?
- What are the drivers of health care spending in MN's commercial market ... price, case mix, volume?
- What are the trends in prescription drug spending in the state between 2009 and 2013?
- What is the volume of potentially preventable health care services in MN?
- What is the state of pediatric quality of care and what differences exist across the state?
- What could be the impact of state-based risk adjustment of Minnesota's small group and individual market?

## Introduction

Prescription drugs offer important treatment options for patients and providers and patients and providers.

APCD), a state repository of health data from health providers' billing records.

Future issue briefs will further explore the use of prescription drugs in Minnesota.

- Groupings of drugs by their function (therapeutic category);
  - Whether they are brand, generic, or off-invented;
  - Channels of distribution and payment;
  - Groupings of type of prescription drug.
- Variations in spending, use, and

## Current Users of the Minnesota All Payer Claims Data Set (MN APCD)

### Background

In 2008, Minnesota law required the Department of Health to create a system of greater quality. In 2014, the MDH's efforts in this

## Key Findings

Spending in 2013 on all paid for by Minnesota residents with insurance was about \$1.5 billion, or about 10 percent of the MN APCD was about



Stefan Gildemeister (@StefanGildemeister) - Feb 27

MDH Commissioner pens article on HEP study about chronic conditions [bit.ly/1QmS5od](http://bit.ly/1QmS5od) [bit.ly/20swqkY](http://bit.ly/20swqkY)



**CHRONIC CONDITIONS IN MINNESOTA:  
New Estimates of Prevalence, Cost  
and Geographic Variation for Insured  
Minnesotans, 2012**  
JANUARY 2016



Stefan Gildemeister (@StefanGildemeister) - Apr 26

HEP releases Public Use Files from the MN APCD #APCD @APCDCouncil @NASHPhHealth [bit.ly/1SxNyyG](http://bit.ly/1SxNyyG)

All Payer Claims Database  
Home  
About the Database  
Data Collection  
Data Users  
Public Use Files  
Related Sites  
Minnesota Department of Health

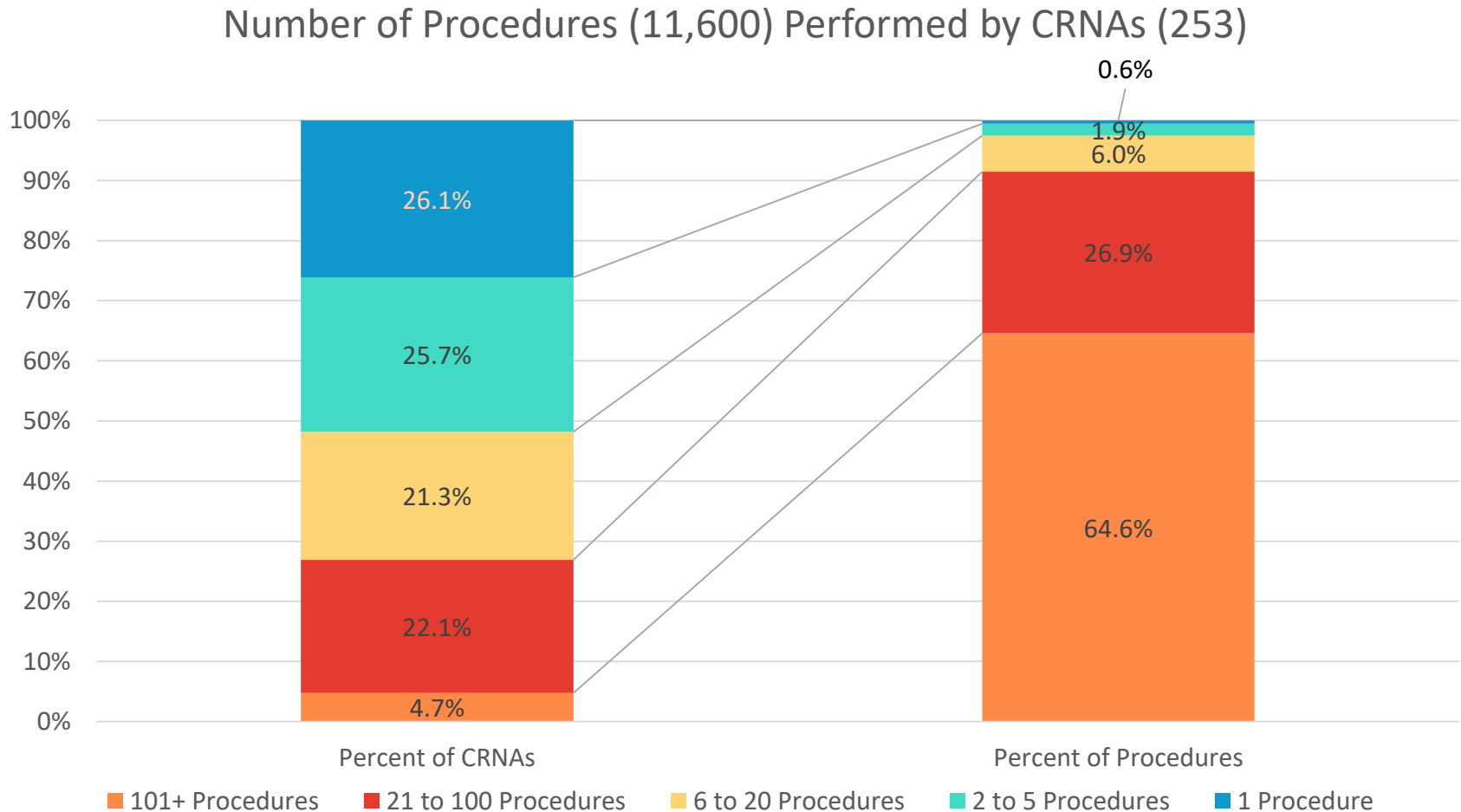
**MNAPCD**  
All Payer Claims Database

### Public Use Files

In 2015, the Minnesota State Legislature directed MDH to annually prepare summary information from the Minnesota All Payer Claims Database (MN APCD) and make it publicly available, if possible, at little or no cost. To advance the process of developing the first set of summary files, in 2016, the HEP (HEP) prepared the first set of summary files, including:

- How to access summary files that are publicly available in summary files.
- How to access the information in a way that would be most useful to researchers.
- Initial summary files to be used in the preparation of summary data files, and
- Other documentation to create more summary data files.

# Pain Management Services in MN: CRNAs



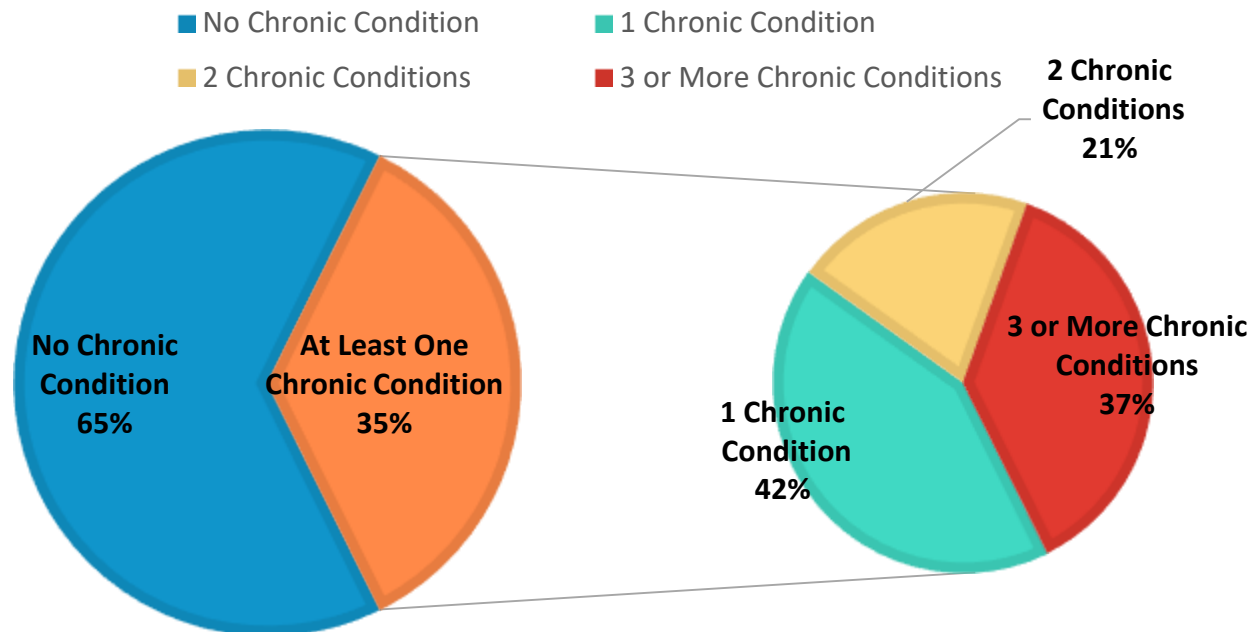


# Potential Preventable Health Care Events

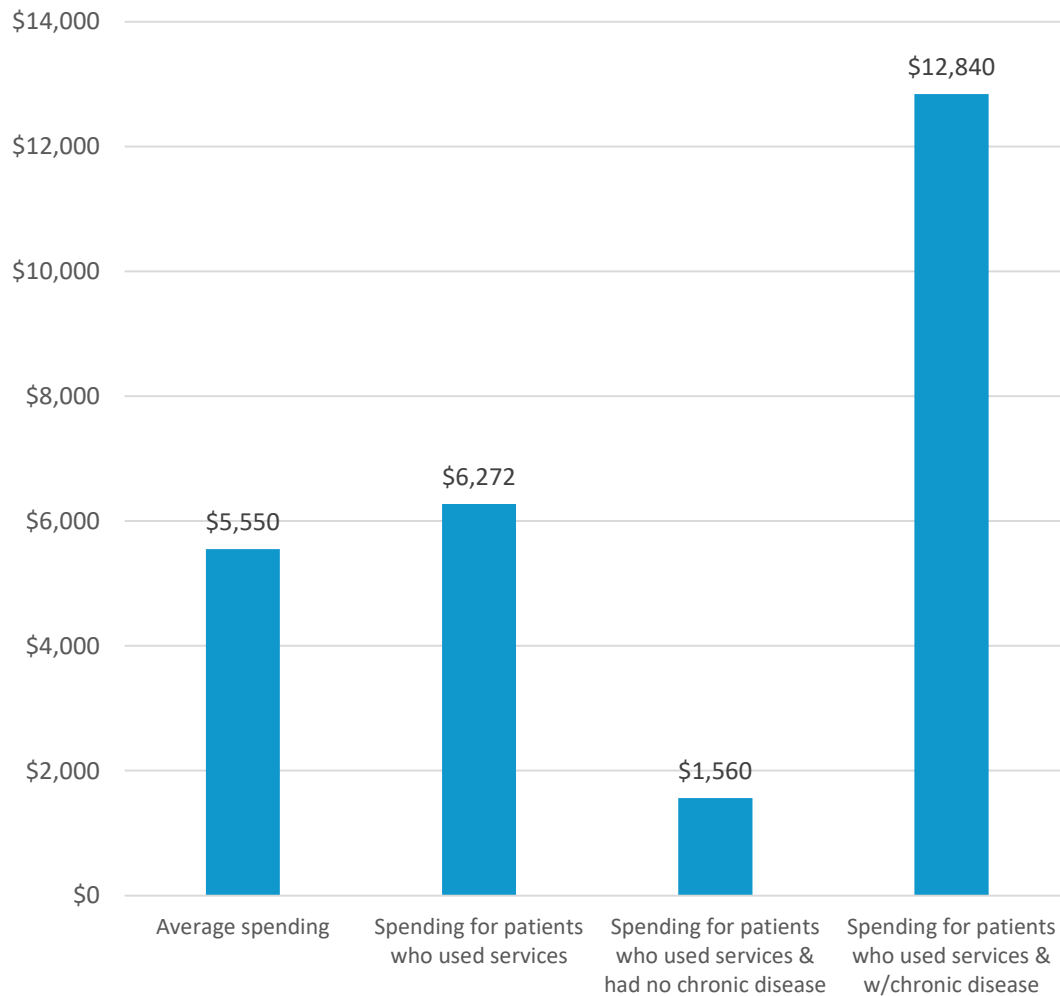


# Preliminary Study Findings

- More than one in three (35.4 percent) of insured Minnesota residents had at least one chronic condition (over 1.6 million individuals) in 2012.
- More than half of these residents had more than one chronic condition.



# Health Care Spending in Minnesota, With & Without Chronic Conditions, 2012

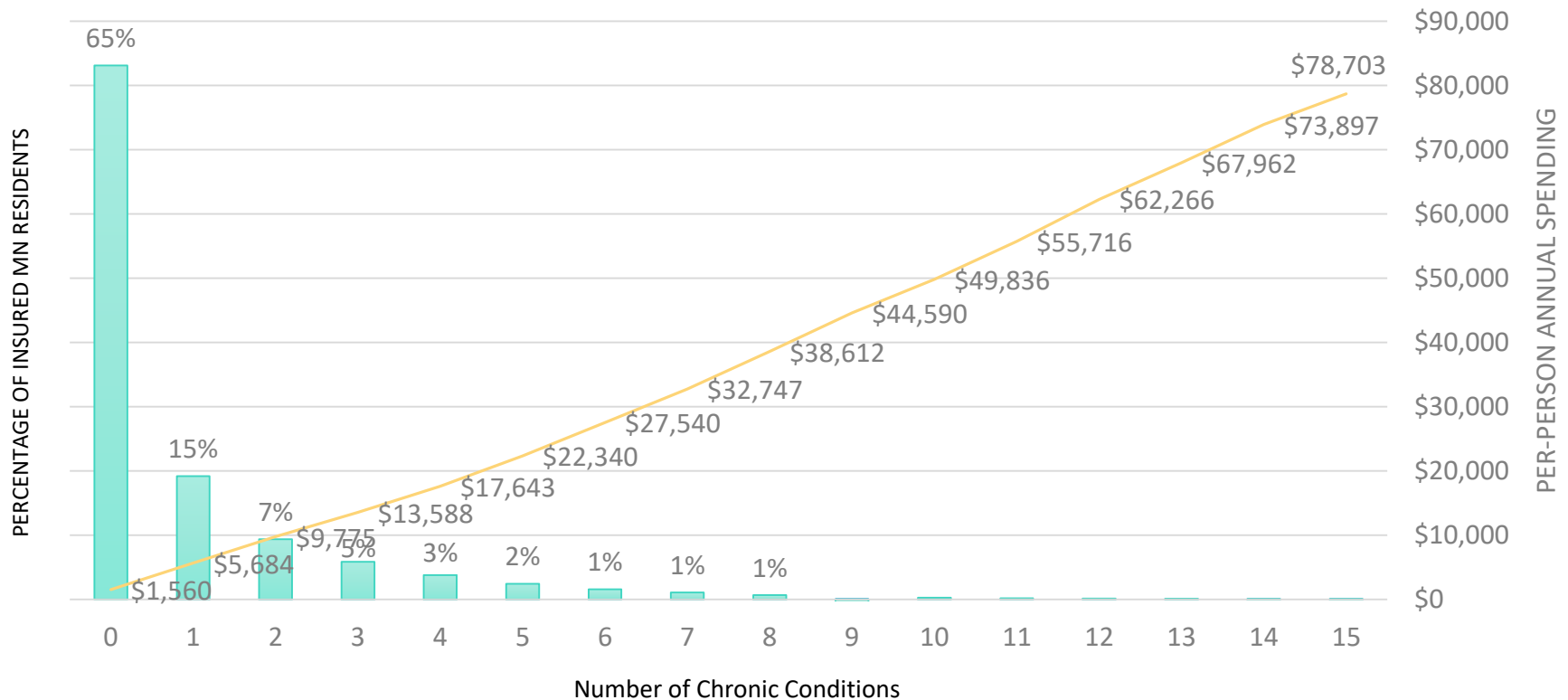


- The presence of chronic conditions contributes significantly to annual per-person health care spending.
- On average, spending for health care services and prescription drugs for Minnesota residents in 2012 was about \$5,550.
- Spending for residents who did not have a chronic condition was approximately \$1,560.
- Residents who had at least one chronic condition spent an average of \$12,840 on health care.

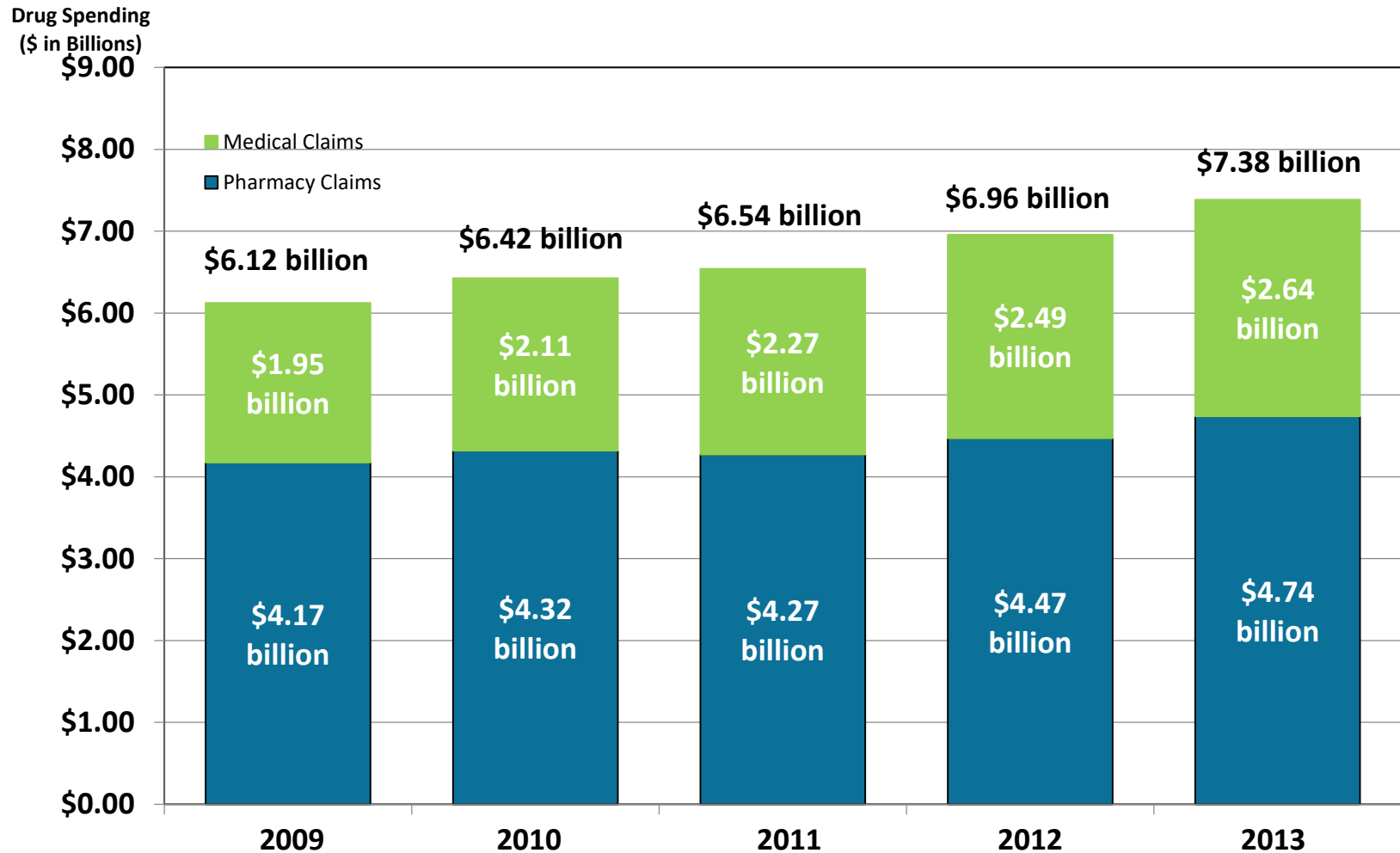


# Spending for Multiple Chronic Conditions, 2012

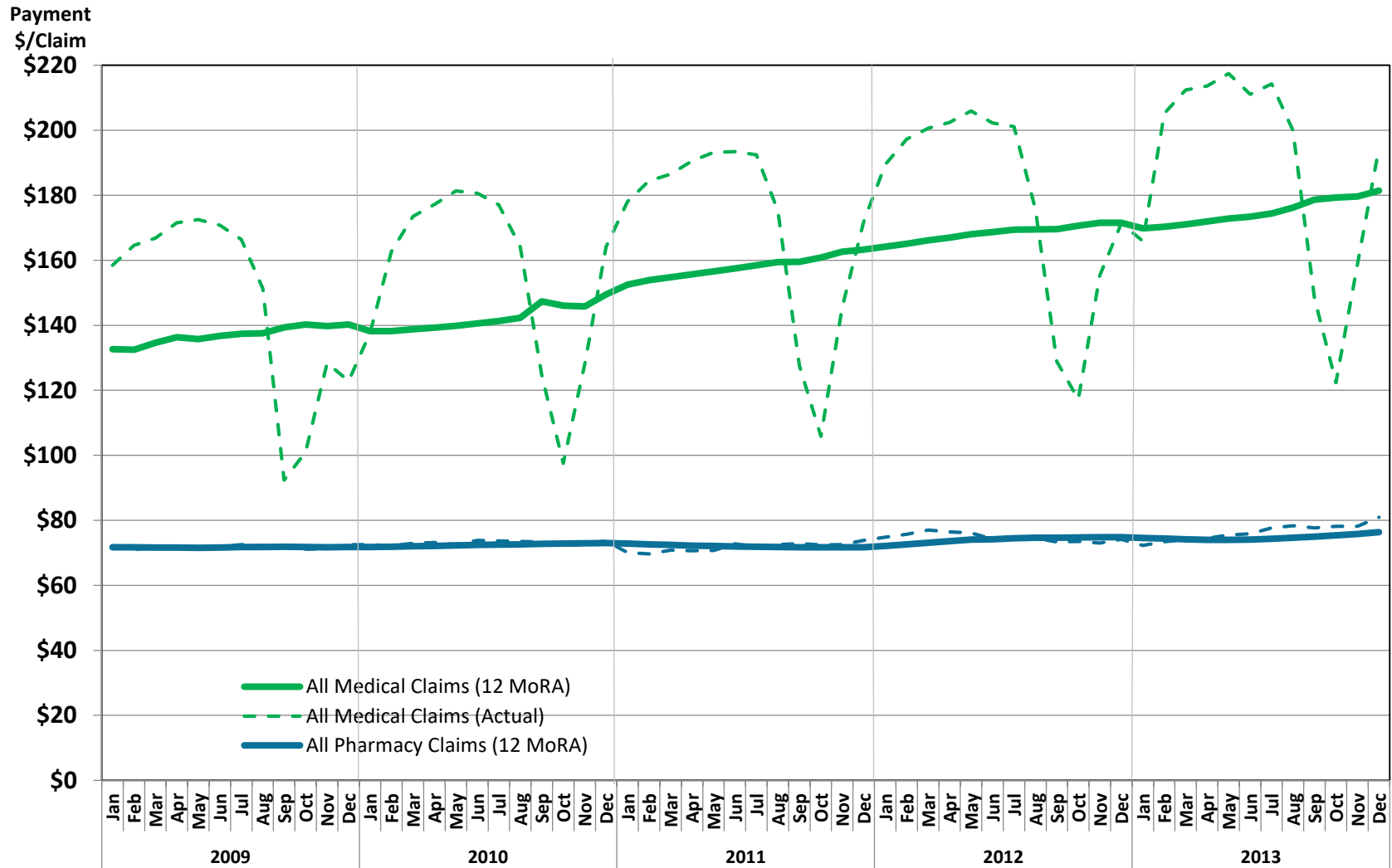
- People with at least one chronic condition (about 35.4 percent of Minnesotans) accounted for the vast majority of health care spending in 2012, or 83.1 percent.
- Each additional chronic condition added an additional annual amount of \$4,000 to \$6,000 to residents' total healthcare spending in 2012.



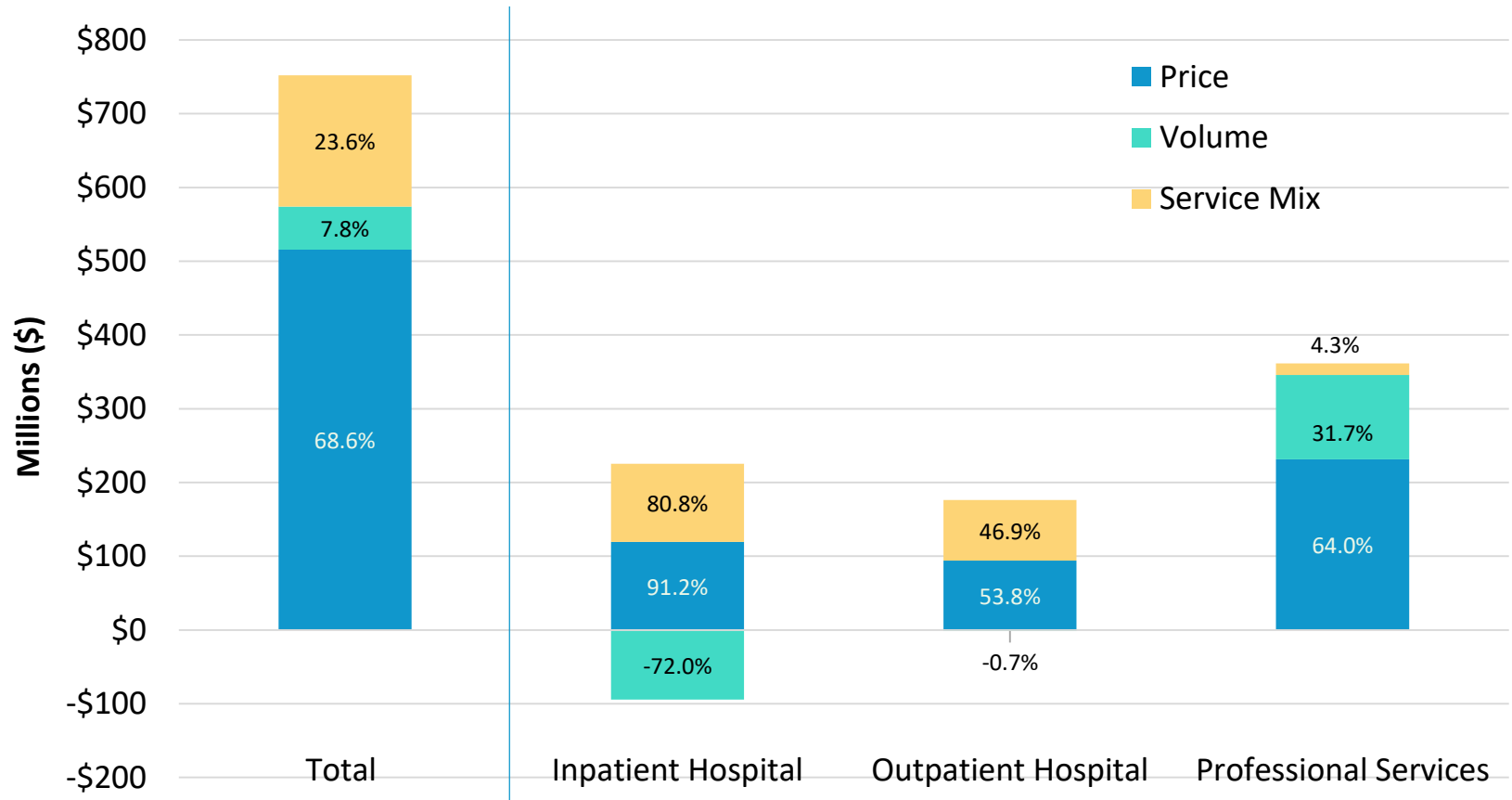
# Spending on Prescription Drugs in Minnesota



# Average Cost Per Claim

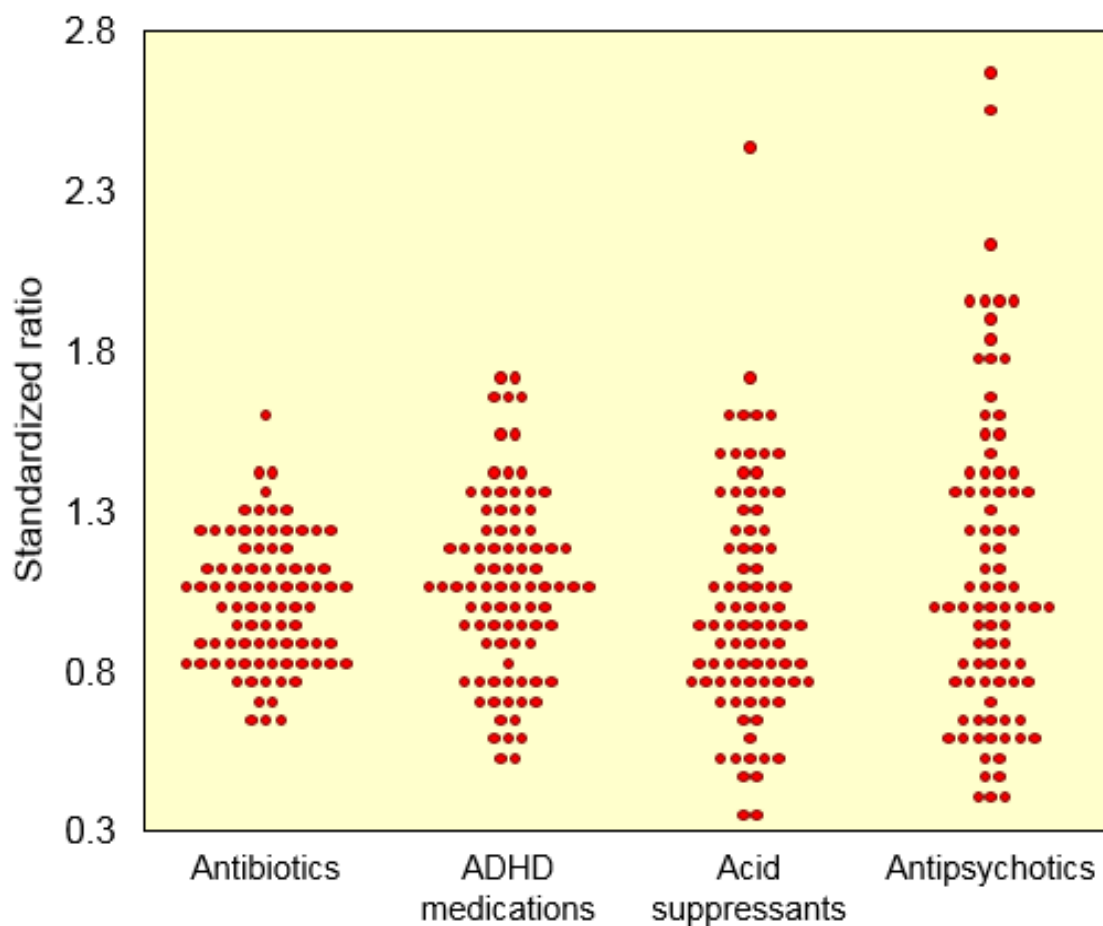


# Cost Drivers in MN's Commercial Market, 2011 to 2013



# Pediatric Health Care Use in MN, 2013 to 2014

(Systematic Coefficient of Variation, MN Counties)



# Contact Information

- MDH – Health Economics Program  
[www.health.state.mn.us/health/economics](http://www.health.state.mn.us/health/economics)
- Minnesota All Payer Claims Data (MN APCD)  
[www.health.state.mn.us/healthreform/allpayer/](http://www.health.state.mn.us/healthreform/allpayer/)
- Minnesota Health Care Market Statistics  
[www.health.state.mn.us/divs/hpsc/hep/chartbook](http://www.health.state.mn.us/divs/hpsc/hep/chartbook)
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