Evaluation of Montana's PCMH Program

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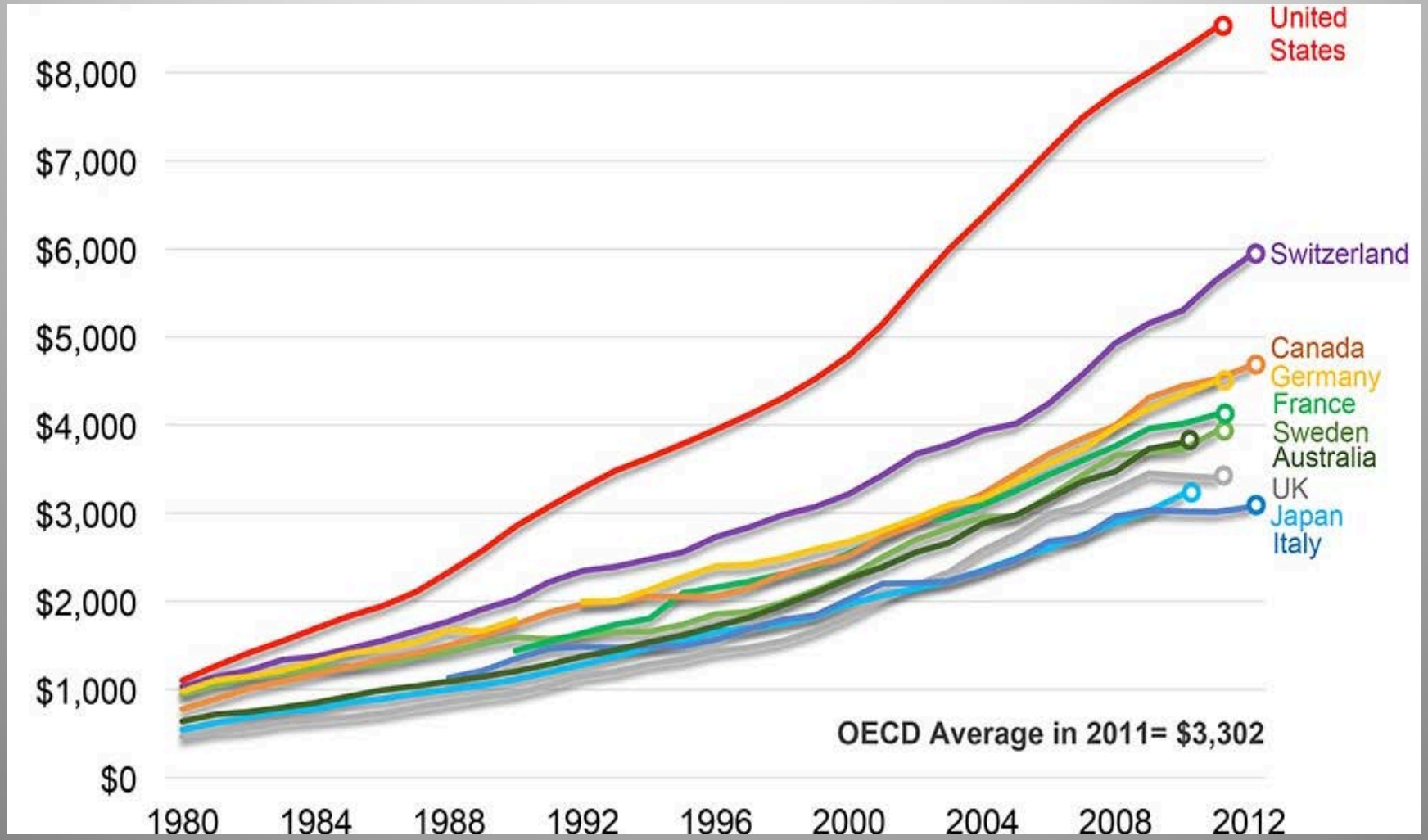
Why PCMH?

OECD health care spending per capita



Why PCMH?

"Although life expectancy and survival rates in the United States have improved dramatically over the past century, Americans live shorter lives and experience more injuries and illnesses than people in other high-income countries."

-Institute of Medicine (2013)

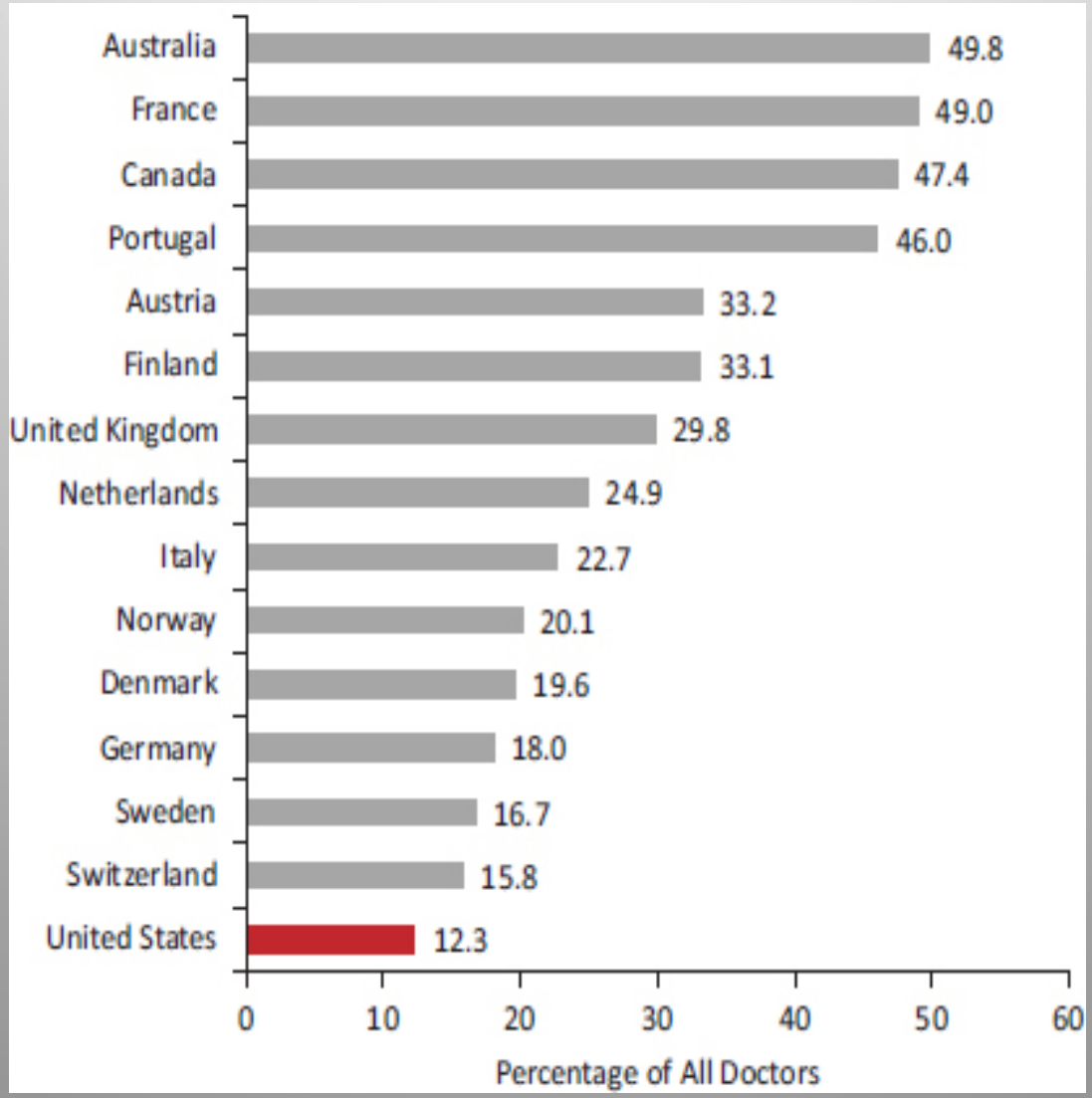
U.S. Health in International Perspective: Shorter Lives, Poorer Health.

Areas of weakness in the quality of U.S. health care:

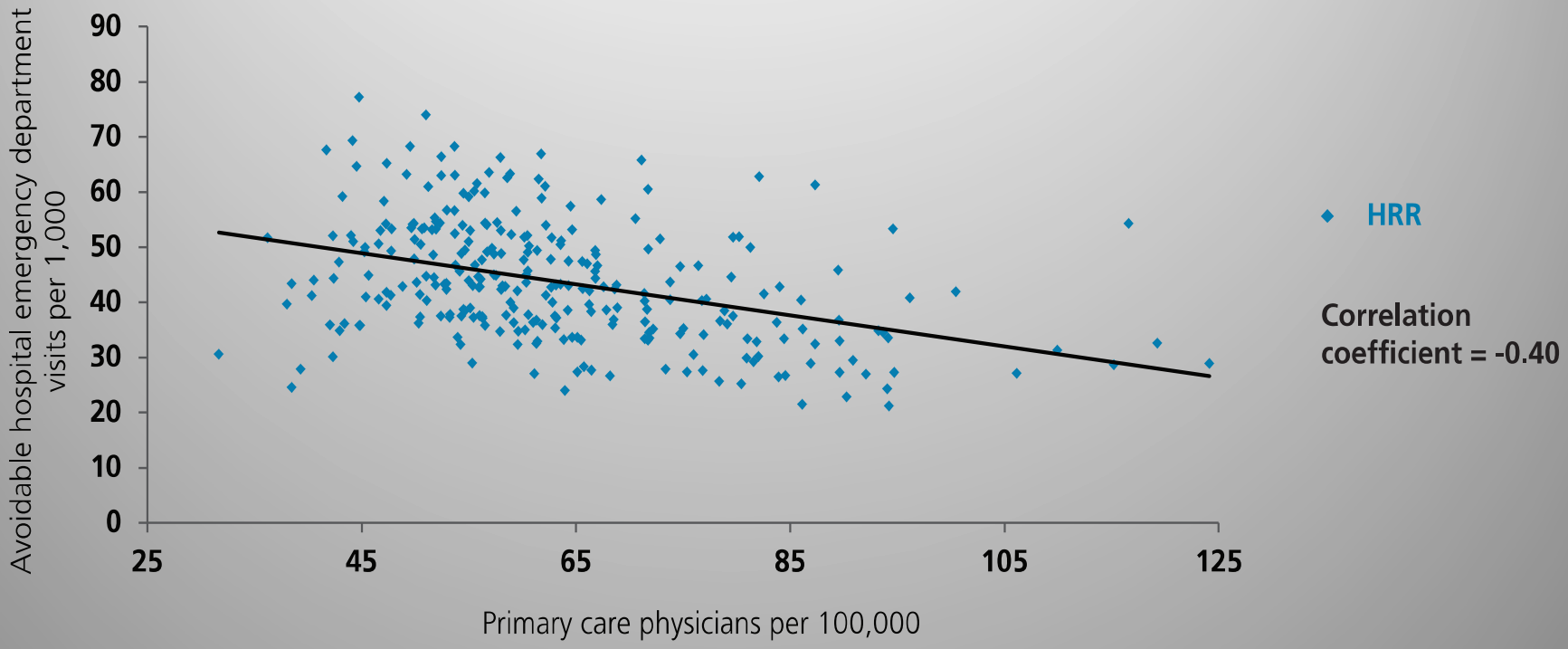
- Coordination of care
- Medical errors
- Dissatisfaction with system (both patients and primary care providers)
- Miscommunication between patient and provider
- Miscommunication between providers
- Inadequate information systems

Source: Institute of Medicine (2013)

General practitioners as a proportion of total doctors in 15 peer countries, 2009



Avoidable hospital emergency department visits and primary care physician supply



Source: UnitedHealth Center for Health Reform & Modernization and Optum Labs analysis, 2014.

What is PCMH?

Principle	Description
Personal Physician	Each patient has an ongoing relationship with a personal physician trained to provide first-contact, continuous and comprehensive care.
Physician-directed medical practice	The personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients.
Whole-person orientation	The personal physician is responsible for providing for all the patient's healthcare needs or taking responsibility for appropriately arranging care with other qualified professionals.
Care is coordinated and/or integrated	Across all elements of the complex healthcare system (e.g., subspecialty care, hospitals, home health agencies, nursing homes) and the patient's community (e.g., family, public and private community-based services). Care is facilitated by registries, information technology, health information exchange and other means.
Quality and safety	Are hallmarks of the medical home and are achieved by incorporating a care-planning process, evidence-based medicine, continuous quality improvement and performance measurement, information technology, patient-centered care, collection of patient feedback, patient participation in quality improvement activities, and a voluntary medical home recognition process.
Enhanced access	Care is available through systems such as open scheduling, expanded hours, and new options for communication between patients, their personal physician and practice staff.
Payment	Appropriately recognizes the added value provided to patients who have a patient-centered medical home beyond the traditional face-to-face visit.

Triple aim

- Improve patient experience
- Improve population health
- Lower health care costs

What is PCMH in Montana?

- Senate Bill 84
  - PCMH Stakeholder Council with Commissioner for Securities and Insurance
    - Provider and payer standards
    - Application for qualification
    - Data reporting
  - 4 payers
  - 62 qualified and 7 provisionally qualified providers

Does PCMH work?: How to tell

- Program evaluation = compare what happened under the program to what would have happened in its absence
- Key challenges for all evaluations:
  - How do we know what would have happened in the absence of program?
  - How do we do we know observed differences reflect evaluated program elements (and not other factors)?
  - Can we precisely measure both program participation (treatment) and all outcomes?

Does PCMH work?: How to tell

Key challenges for PCMH evaluations:

- What is PCMH? Is it implemented the same everywhere?
- How long does until effects occur?
- Do PCMH effects vary across people (e.g., larger effects for people with chronic conditions)?
- Are studied populations large enough to detect small or medium sized effects?

Does PCMH work?

Existing evaluations of PCMH present evidence that **PCMH *can work***, but not every study finds effects.

Illustrative results of effects of PCMH on utilization

Program	Outcome	Reduction
Care Transformation Collaborative of Rhode Island	Ambulatory care-sensitive emergency department visits	11.6%
Cincinnati Aligning Forces for Quality Multi- Patient-Centered Medical Home Pilot	Ambulatory care-sensitive emergency department visits	23%
Colorado Multi- Patient-Centered Medical Home Pilot	Emergency department visits	9.3%
Vermont Blueprint for Health	Inpatient days per 1000 members	8%
Hudson Valley Comprehensive Primary Care Initiative	Hospitalizations	6%

Illustrative results of effects of PCMH on quality

Program	Areas of improvement
Colorado Multi- Patient-Centered Medical Home Pilot	Cervical cancer screening
PCMH in the Hudson Valley	Nephropathy screening for diabetics; chlamydia screening for women
Cincinnati Aligning Forces for Quality Multi- Patient-Centered Medical Home Pilot	Lipid testing in diabetics
Minnesota Health Care Homes	Vascular care; diabetes care; asthma care

Illustrative results of effects of PCMH on spending

Program	Outcome	Reduction
Geisinger Health System	Total cost savings	7.9%
Minnesota Health Care Homes	Total medical costs for attributed patients	9%
Community Care of North Carolina	Total spending for non-elderly Medicaid beneficiaries	9%
Vermont Blueprint for Health	Spending per member per month	$482
Blue Cross Blue Shield of Michigan Physician Group Incentive Program	Spending per member per month	1.1%

Effects of Montana's PCMH

The best available evidence for Montana's PCMH program is the fact that payers and providers believe in it.

- Payers hope to expand program.
- Providers report improved care processes and patient benefits (e.g., better access to same day care, better follow-up care, more patient-provider trust).

“Patient care coordination is a vital component of our Patient-Centered Medical Home.

Previously, a patient would need to call the Central Appointment Desk (CAD) and would potentially receive recommendations to be seen in the Emergency Department or Same Day Care for any acute complaints listed on the CAD triage protocol. Currently, those established patients are now receiving Registered Nurse triage within their Medical Home team to better coordinate care. For example, an established patient called the nursing team with complaints of left upper quadrant pain with vomiting over the past three days. The patient received an urgent appointment with the team who scheduled an urgent ultrasound and lab work. The Radiologist and Internist collaborated over the radiology reports to determine diagnosis and next steps. The Internist then communicated with the Surgeon on call and the patient was seen by both the Surgeon and Internist in a shared appointment to discuss a plan of care. The patient was then directly admitted to a hospital observation bed and taken to surgery within 4 hours of the first contact to the Medical Home team. Comparatively, an Emergency Department Visit could potentially increase time to Operating Room, not include the patient's Medical Home Team, and increase the patient's out of pocket costs while decreasing the patient's overall experience.

Collaboration among interdisciplinary teams and coordinated care by the Patient-Centered Medical Home has both increased patient experience and satisfaction and the medical team's job satisfaction as evidenced by the organizations engagement surveys, safety surveys, and patient surveys.”

--Annual report response from Montana PCMH Provider

Data available in Montana not ideal for evaluation

- Have decent data on what happens to participants
- Do not have good data on what would happen in absence of program
  - Attributed patients and participant providers differ from other patients and providers
  - Lack data to compare PCMH to similar non-PCMH patients and providers
  - Lack before and after data
- Insufficient time for effects to show up
- Simultaneous changes in other parts of health care confound analysis
- Sample may be too small to detect effects of small or medium effects

Utilization

Emergency department visits per 1000 member months, 2015

	ED visits/1000		ED visits that do not lead to a hospitalization/1000	
	PCMH	All	PCMH	All
Payer A	867.22	646.41	783.72	587.79
Payer B	160	162.11	138.91	143.34
Payer C	275	170	225	150.6
Payer D	N/A	137.4	N/A	N/A

Utilization trends

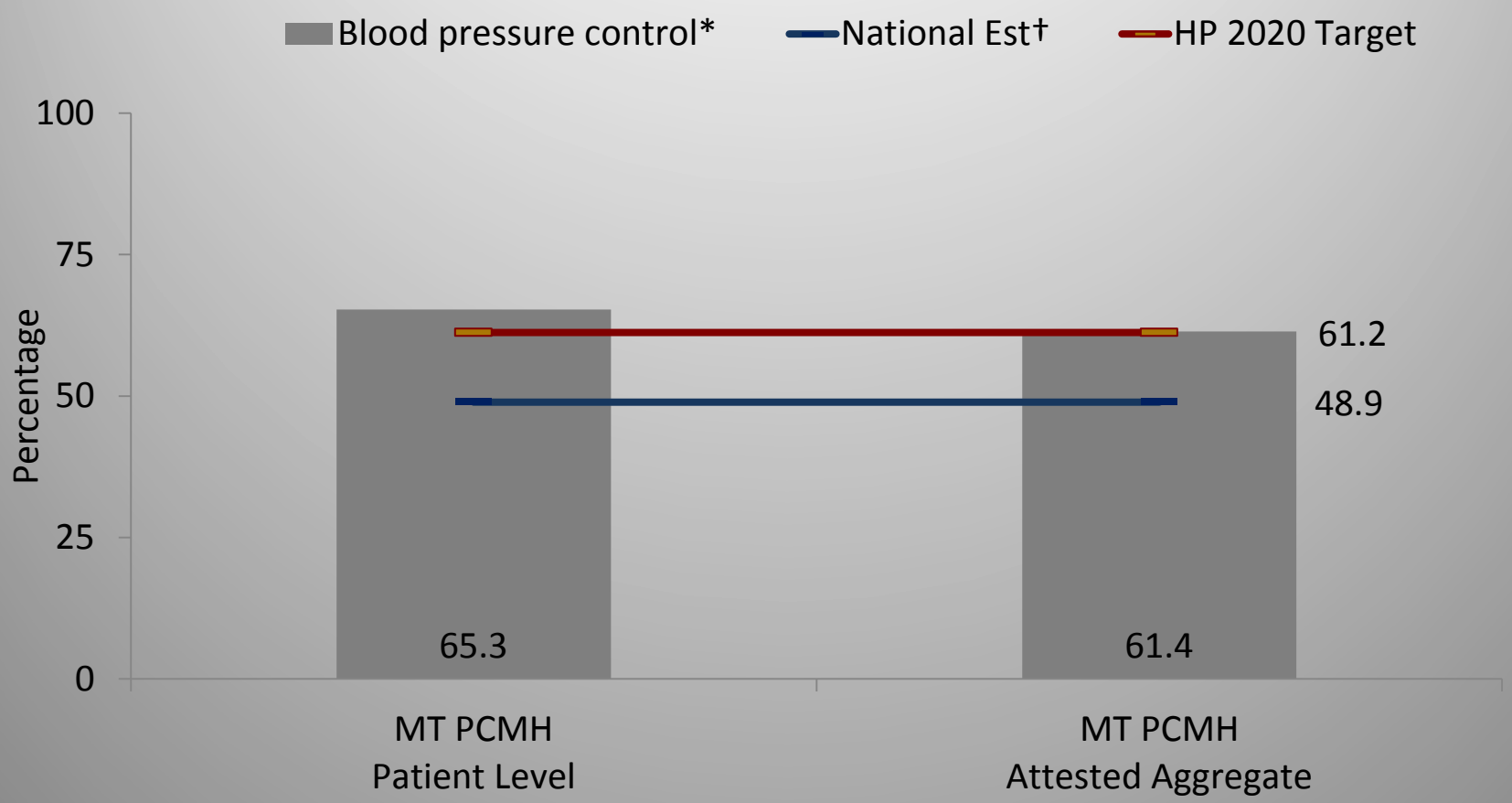
Emergency department visits per 1000 member months, 2014-2015

	Payer B PCMH	Payer B All	Payer A All	Payer C All	Payer D All
2014	146.84	156.75	658.50	174.5	129.9
2015	159.99	162.11	646.41	170	137.4

Hospitalizations per 1000 member months, 2014-2015

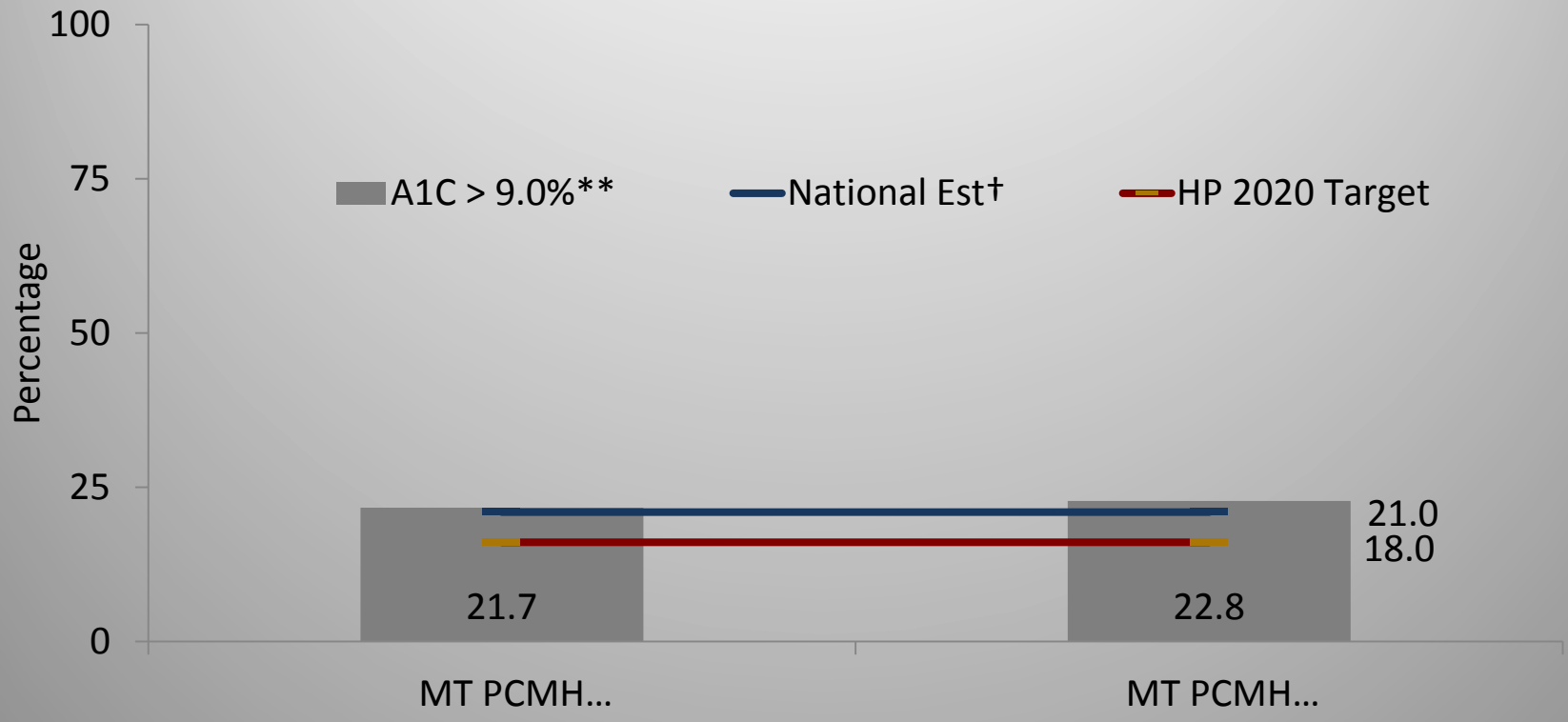
	Payer B		Payer A		Payer C	Payer D
	PCMH	All	PCMH	All	All	All
2014	35.14	28.87	N/A	59.3	65.1	27.4
2015	35.41	28.09	93.8	55.63	56.1	28.9

Documented Blood Pressure Control Rate among Montana PCMH Clinics Compared to the National Estimate and Healthy People 2020 Target, by Type of Data Submitted, 2015



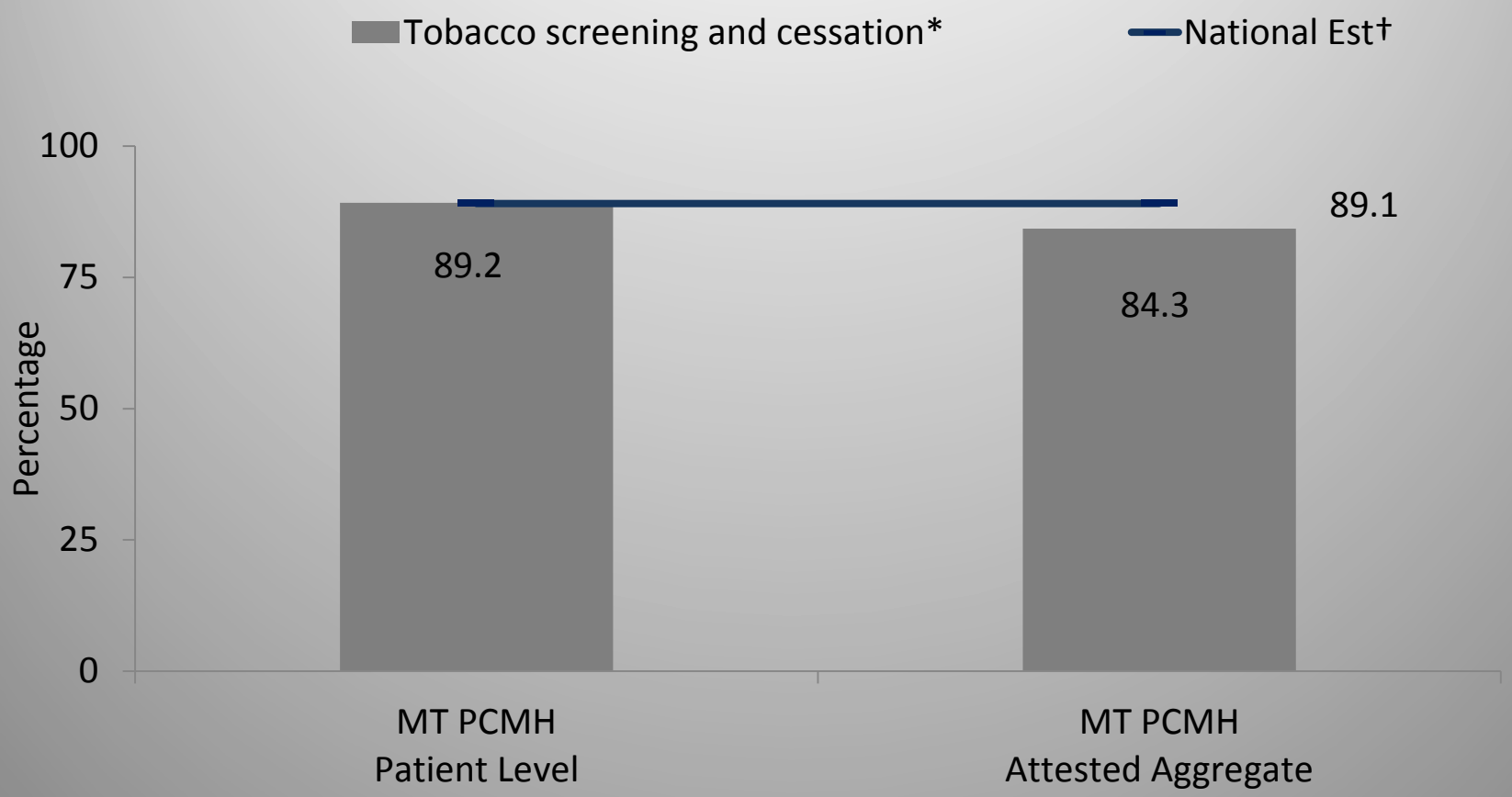
Notes: *Percentage of adults aged ≥18 through 85 years in the PCMH patient population** , who had documented systolic and diastolic blood pressure <140mmHg and <90mmHg respectively, at most recent outpatient visit, during the reporting period; **Who (a) have the diagnosis of hypertension, including ICD-9 code groups 401.0, 401.1,

Documented Rate of A1C >9.0% for Patients with Diabetes among Montana PCMH Clinics Compared to the National Estimate and Healthy People 2020 Target, by Type of Data Submitted, 2015



Notes: *Percentage of adults aged ≥18 through 75 years in the PCMH patient population who (a) have the diagnosis of diabetes type 1 or 2. For diagnosis codes refer to http://csimt.gov/wp-content/uploads/2016PCMHQualityMetricsGuidancePacket.pdf and (b) had one or more outpatient visits during the reporting period: calendar year 2015; **Percentage of the adults described above, for whom the most recent documented A1C during the reporting period was >9.0% or there was no measured A1C; † Data Source: National Health Interview Survey 2011 for estimate of prevalence of diabetes among adults and National Health and Nutrition Examination Survey 2009-2012 for estimate of proportion of diabetic patients with A1C > 9.0%

Documented Tobacco Screening and Cessation Intervention Rate among Montana PCMH Clinics Compared to the National Estimate, by Type of Data Submitted, 2015



Notes: *Percentage of adults in the PCMH patient population** who were screened for tobacco use at least once within 24 months **AND** who received tobacco cessation intervention if identified as tobacco users; **Patients aged ≥18 who had a visit during the reporting period: calendar year 2015; † Data Source: CMS Benchmarks For Measures Included in the Performance Year 2015 Quality and Resource Use Reports

Percentage of children aged 36 months* who received all age-appropriate doses of selected vaccines recommended by the Advisory Committee on Immunization Practices, 2015.

	MT PCMH patient-level	MT PCMH Attested Aggregate	Montana†	United States†
4+ DTAP	86.9	89.2	83.1	84.2
3+ HepB	88.7	90.8	92.1	91.6
3+ Hib	88.5	90.6	93.8	92.6
3+ IPV	89.7	92.1	94.9	93.3
1+ MMR	92.3	94.5	93.4	91.5
4+ PCV	80.9	86.5	82.4	82.9
1+ Var	89.7	93.1	90.9	91.0
Combined series§	75.7	80.6	67.1	71.6

Notes: *All children in the PCMH population who had a 3rd birthday during January 1, 2015 through January 1, 2016 and who had one or more outpatient visit during 2015; DTaP = diphtheria and tetanus toxoids and acellular pertussis vaccine; HepB = hepatitis B vaccine; Hib = Haemophilus influenzae type B conjugate vaccine; IPV = inactivated poliovirus vaccine; MMR = measles, mumps, and rubella vaccine; PCV = pneumococcal vaccine; VAR = varicella vaccine; §Combined series (4:3:1:3:3:1:4) includes ≥4 doses of DTaP, ≥3 doses of IPV, ≥1 dose of MMR, full series of Hib (≥3 doses for PCMH data, 3 or 4 doses for NIS depending on product type), ≥3 doses of HepB, ≥1 dose of VAR, and ≥4 doses of PCV; †Data Source: National Immunization Survey (NIS); estimated immunization coverage for children aged 19–35 months during 2014.

Summary

- The data do not support firm conclusions about the effectiveness of PCMH.
- Evaluations indicate that PCMH can work and anecdotal evidence indicates that it may be working in Montana to improve patient experience, improve population health, and lower healthcare costs.