

Healthcare: Financial Modernization and Risk Analysis Study Committee

Dr. Robert J. Sonora

Associate Director, BBER
Professor of Economics
University of Montana
Missoula, MT

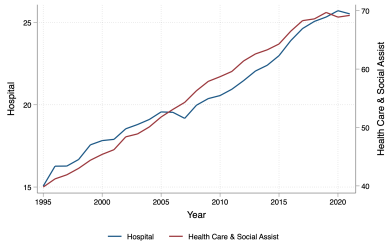
MARCH 8, 2022

Adam Smith: *Wealth of Nations*: The “wealth” is human capital – ideas and health

Treat health as the Nation's Number One Asset

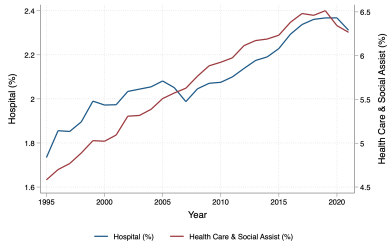
- ▶ Economic growth and prosperity
- ▶ quality of life
- ▶ reduction in crime, abuse,
- ▶ reduction in poverty and income inequality
- ▶ lower health costs

Health Care Employment



Note: In thousands

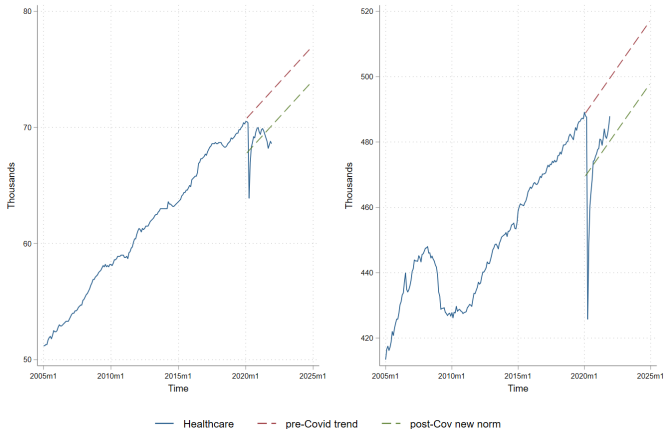
In levels



Note: As percent of population

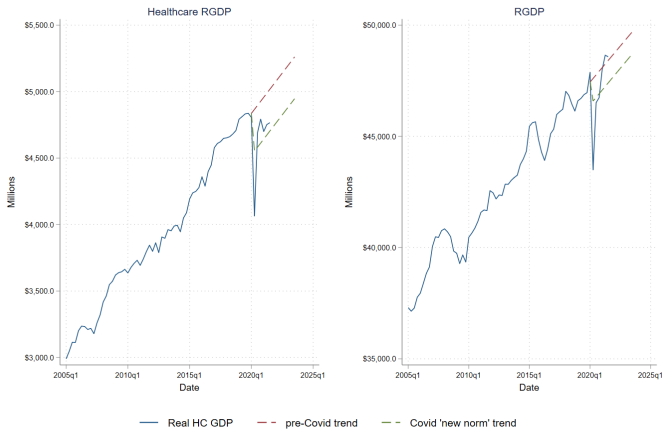
Per capita

Healthcare and Nonfarm Employment



MTDLI forecasts healthcare employment to grow 1.63% between 2022-2030, insufficient to close gap by 2030

Montana Healthcare RGDP & RGDP



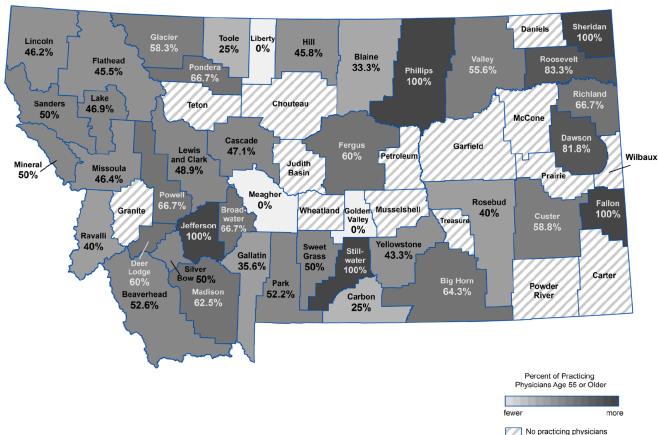
Nationally:

1 in 5 healthcare workers have left:

- ▶ 18% of health care workers quit their jobs during the COVID-19 pandemic, another 12% have been laid off.
- ▶ Among health care workers who have kept their jobs during the pandemic, 31% have considered leaving.
- ▶ 79% of health care professionals said the national worker shortage has affected them and their place of work.

Physicians over 55

All physicians age 55 or older providing direct patient care



Data Source: AMA Physician Masterfile
Map Date: February 2017

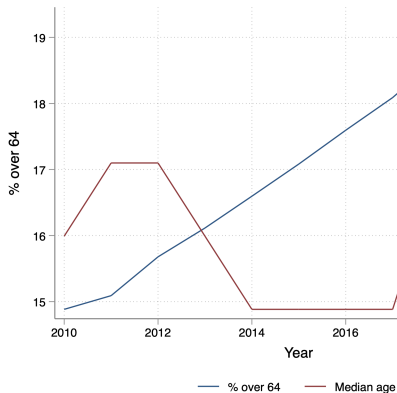
(Source: Center for Health Workforce Studies, UW)

Causes of Death per 100k

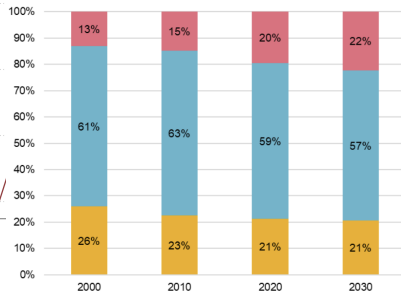
	Pre-Covid		Post-Covid	
	US	MT	US	MT
HIV [†]	201	214	212	218
Cancer [†]	183	196	181	191
C19 [†]			152	127
Falls ≥ 65 [†]	63	81	66	96
Lower respiratory [†]	48	71	43	56
Stroke [†]	46	39	49	40
Diabetes	27	26	32	33
Alzheimer [†]	37	31	41	31
Suicide [†]	15	27	14	28
Liver [†]	14	17	16	25
Firearm [†]	12	20	14	22
Kidney [†]	16	13	16	13
Parkinson	11	10	12	13
Septicemia [†]	12	9	12	9
Hypertension [†]	11	8	13	9

Note: '†'s denote statistically significant difference.

MT: % over 64 and median age and projected retirement



Retirement age is expected to increase as a share of the population through 2030, working age is expected to decrease, and youth share of the population is expected to decrease.



Data: eREMI

Demographic

Retirement

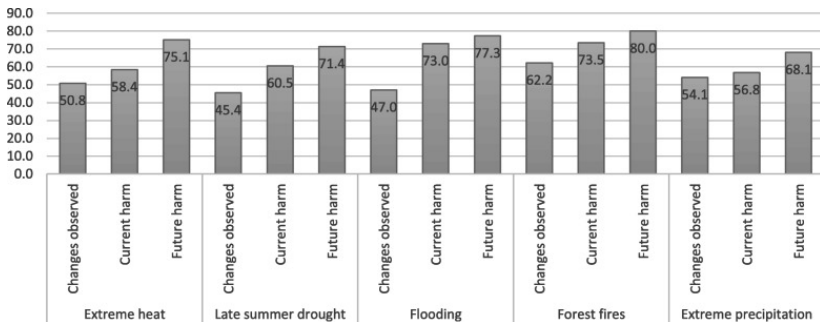
How

- ▶ Aspects of climate change
 - ▶ increased summer temperatures and periods of extreme heat, days $> 90^{\circ}\text{F}$;
 - ▶ reduced air quality from smoke, as wildfires will increase in size and frequency in the coming decades; and
 - ▶ more unexpected climate-related weather events: including rapid spring snowmelt and flooding, severe summer drought, and more extreme storms.
- ▶ At-risk populations: exposed to prolonged heat and smoke, those living in poverty, having limited access to health services, and/or lacking adequate health insurance.
- ▶ increased summer temperatures and wildfire occurrence will worsen heat- and smoke-related health problems

(Source: "Climate Change and Human Health in Montana", MSU, sponsored by the Montana Healthcare Foundation, 2021, <https://doi.org/10.15788/c2h22021>)

Future concerns

Survey of members of the Montana Public Health Association and Montana Environmental Health Association: 2019

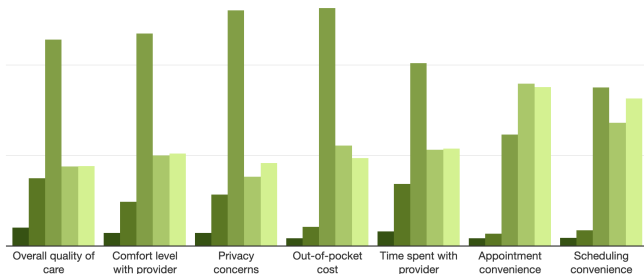


(Source: Byron, L. and Akerlof, K.L. (2021). "Climate and health concerns of Montana's public and environmental health professionals: a cross-sectional study", *BMC Public Health*, 21(1): 1778.

Demand

How Telehealth Compares to In-Person Care

■ Telehealth is much worse ■ Telehealth is worse ■ Telehealth is neither better nor worse ■ Telehealth is better
 ■ Telehealth is much better



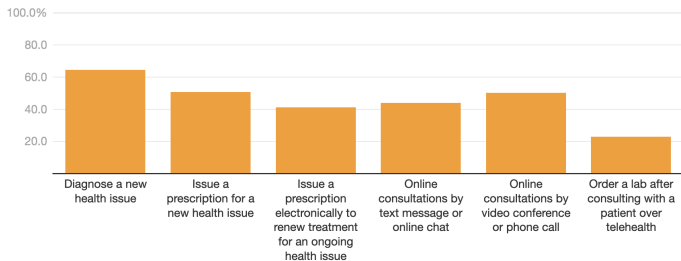
This analysis was conducted using a nationally representative sample of 1,042 people in the U.S. The above chart is limited to respondents who indicated that they had used telehealth during or prior to the COVID-19 pandemic.



(Source: Guttenberg (2021). "The State of Telehealth, According to Healthcare Providers and Patients", GoodRX Health, <https://www.goodrx.com/>)

Supply

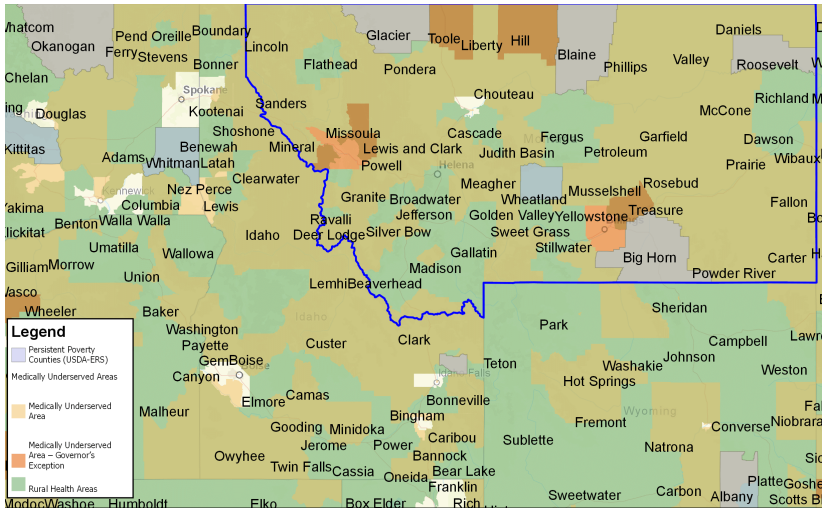
Types of Telehealth Services Offered by Providers



The data for this analysis comes from a 2021 GoodRx survey of 624 U.S.-based healthcare providers. The above chart is limited to respondents who indicated that they provide telehealth.



(Source: Guttenberg (2021). "The State of Telehealth, According to Healthcare Providers and Patients", GoodRX Health, <https://www.goodrx.com/>)



(Source: Division of Data and Information Services, HRSA)

Urban-Rural Divide

	Urban	Rural
Age-Adjusted Mortality (per 1,000)	349.0	348.6
Infant Mortality Rate (per 1,000)	5.4	8.0
% Frequent Physical Distress	10.3	10.8
% Frequent Mental Distress	10.7	11.1
% Diabetic	8.0	9.2
% Food Insecure	12.7	12.5
% Uninsured	14.2	19.0
Medical Costs	\$7,616	\$7,708

Tribal causes of deaths

	Tribal	US
All	999.1	747
Heart Disease	194.7	179.1
Cancer	178.4	172.8
Accidents	93.7	38.0
Diabetes	66.0	20.8
Alcohol-induced	50.0	7.6
Lower respiratory	46.6	42.2
Stroke	43.6	39.1
Liver	42.9	9.4
Flu-pneumonia	26.6	15.1
Drug OD	23.4	15.3
kidney disease	22.4	15.3
Suicide	20.4	12.1
Alzheimer	18.3	25.1
Septicemia	17.3	10.6
Homicide	11.4	5.4
Hypertension	9.0	8.0

Statewide economic impacts of Montana Hospitals

State economic contributions attributed to 58 of the state's hospitals

Category	Units	Impact	% of state
Total Employment	Jobs	83,881	12.1%
Personal Income	\$ millions	\$6,359.5	13.4%
Disposable Personal Income	\$ millions	\$5,721.1	13.4%
Output	\$ millions	\$16,129.8	16.4%
Population	People	147,455	13.7%
Tax revenues	\$ millions	\$1,502.8	—

(Source: BBER, *The Economic Impact of Montana's Hospitals*, Montana Hospital Association, 2021)

US Healthcare system is approximately 20% of GDP

Lewis & Clark County

Lewis and Clark County: Hospital economic impacts

Category	Units	St. Peter's Health	Shodair Children's Hospital	Total
Total Employment	Jobs	4,315	1,112	5,427
Personal Income	\$ millions	\$340.9	\$80.8	\$421.7
Disposable Personal Income	\$millions	\$306.6	\$72.9	\$379.5
Output	\$ millions	\$887.5	\$230.7	\$1,118.2
Population	People	7,632	1,991	9,623

Thank You

Questions?

Robert Sonora, PhD: BBER at the University of Montana
email: robert.sonora@mso.umt.edu
phone: 406.272.5113