

# Navigating Health Policy to Bolster Vaccination Rates in Michigan

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***Michigan Health Policy Forum***

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3:05 – 3:35 p.m.

# **Work Group**

- **MDHHS: Immunizations**
  - **Ryan Malosh**
  - **Taylor Oslabeck**
- **MSU-Institute for Health Policy**
  - **Kevin Brooks**
  - **Sabrina Ford**
  - **Zongqiang Liao**
  - **Mandy Rathore**
- **Disclosures**
  - The presenter has nothing to disclose.
  - Use of public data available on MDHHS website.





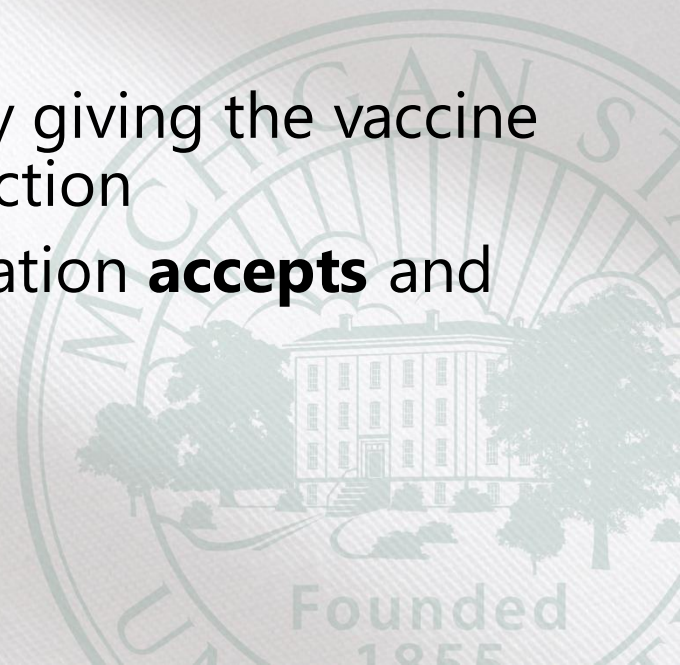
# > OVERVIEW

- Terms and Definitions
- History of the Vaccine Policy
- Michigan Vaccine Rates
- Policy Recommendations
- Disclaimer



## ➤ Terms and Definitions

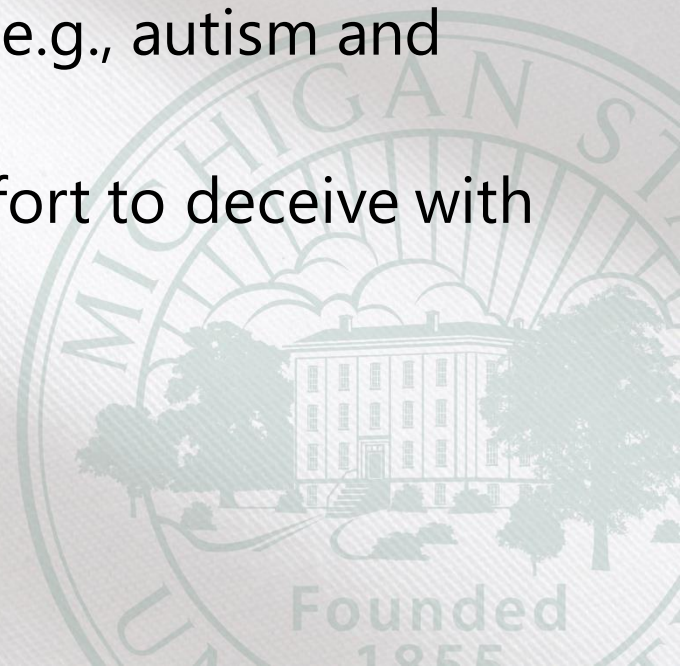
- **Vaccinate:** Introducing, usually delivered via an injection, vaccine into the body to produce immunity to specific diseases.
- **Inoculate:** implant a microorganism, typically used in research settings.
- **Immunize:** protect individuals by creating an immunity to the disease; building antibodies can be long-term or may need boosters.
- **Administration:** the act of physically giving the vaccine to individuals, usually by needle injection
- **Uptake:** the rate at which the population **accepts** and receives the vaccine.





## > Terms and Definitions

- **Misinformation:** sharing information that is believed to be accurate; usually spread unintentionally.
- Can be addressed with health education and increasing health literacy in a community.
- **Disinformation:** false information deliberately spread and intended to deceive or mislead. e.g., autism and vaccines
- May require disrupting organized effort to deceive with a trusted source.



# > Advent of Early Vaccines

Smallpox  
1796  
Jenner

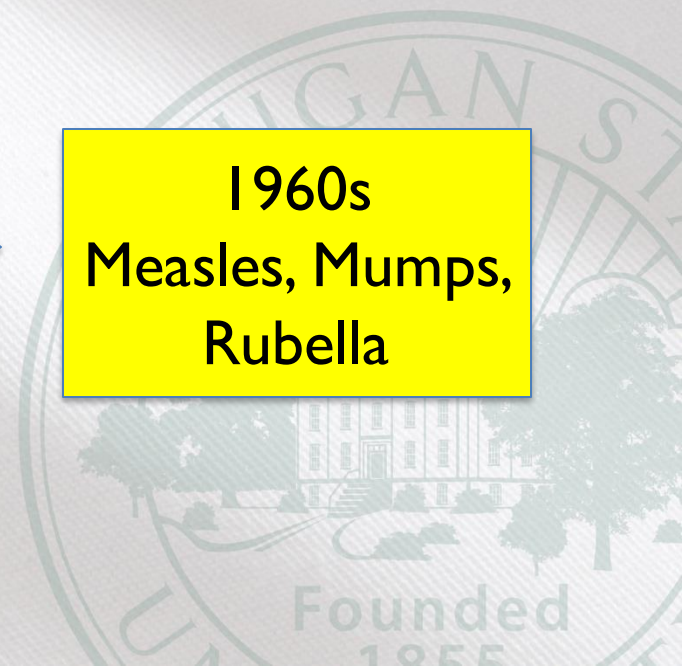
Pertussis  
1914

Diphtheria  
1926

Tetanus  
1938

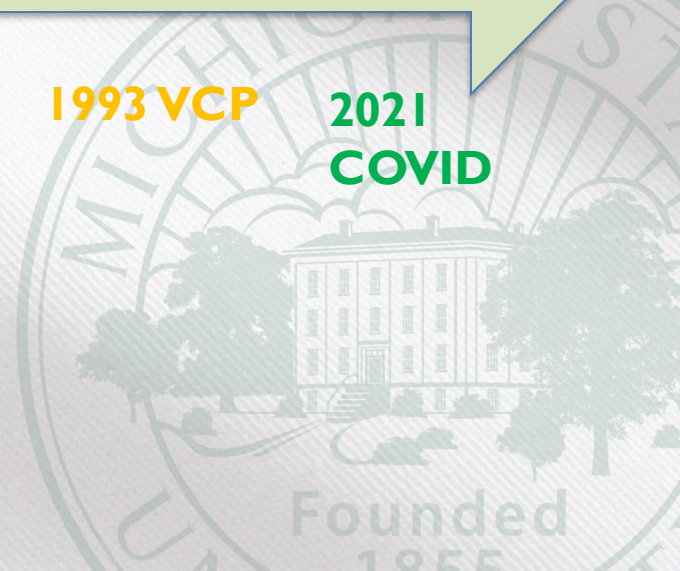
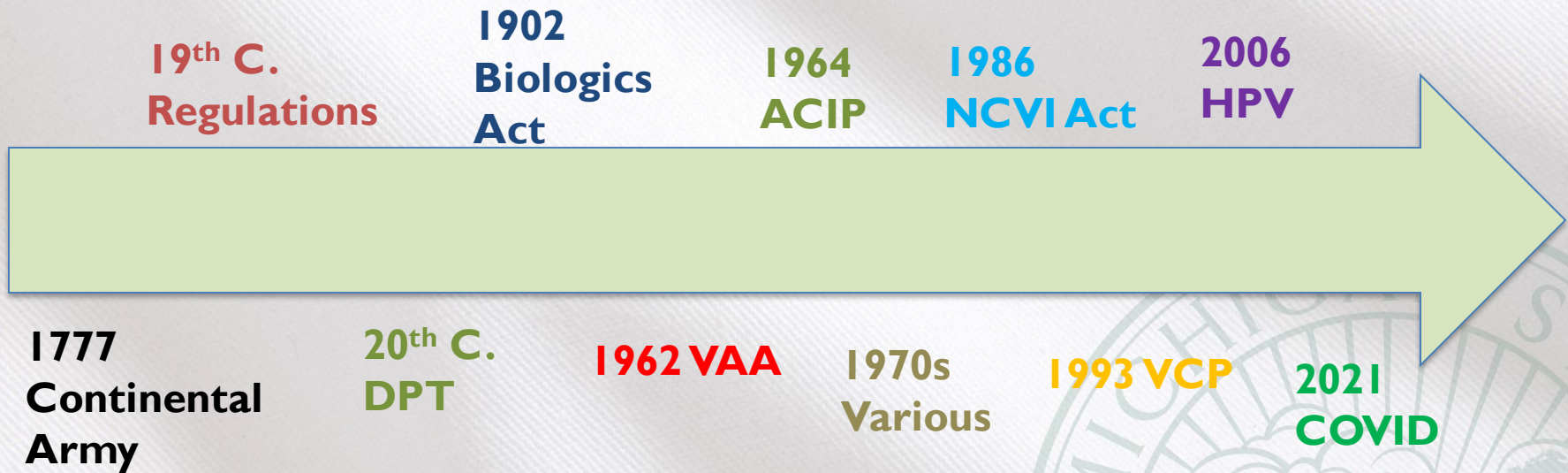
Polio  
1955

1960s  
Measles, Mumps,  
Rubella





# > History of Vaccination Policy in the U.S.



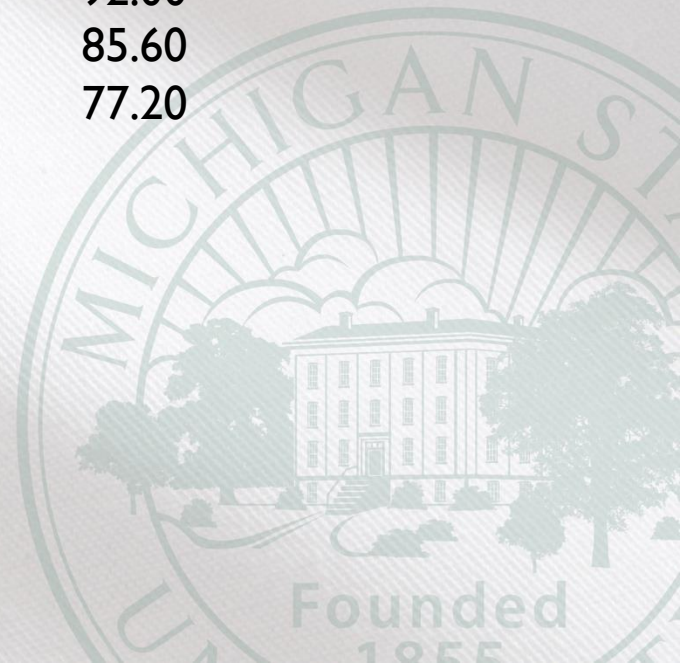
# > World Vaccination Policies

Country	Vaccine Requirement	Rate for DTP*
China	Recommended	99.20
Russia	Recommended	96.90
Australia-	Recommended	94.20
India	Mandatory	93.40
United States	Mandatory for School	93.00
United Kingdom	Recommended	92.30
Canada	Recommended	92.00
South Africa	--	85.60
Brazil	Mandatory	77.20

\*Diphtheria, tetanus, pertussis



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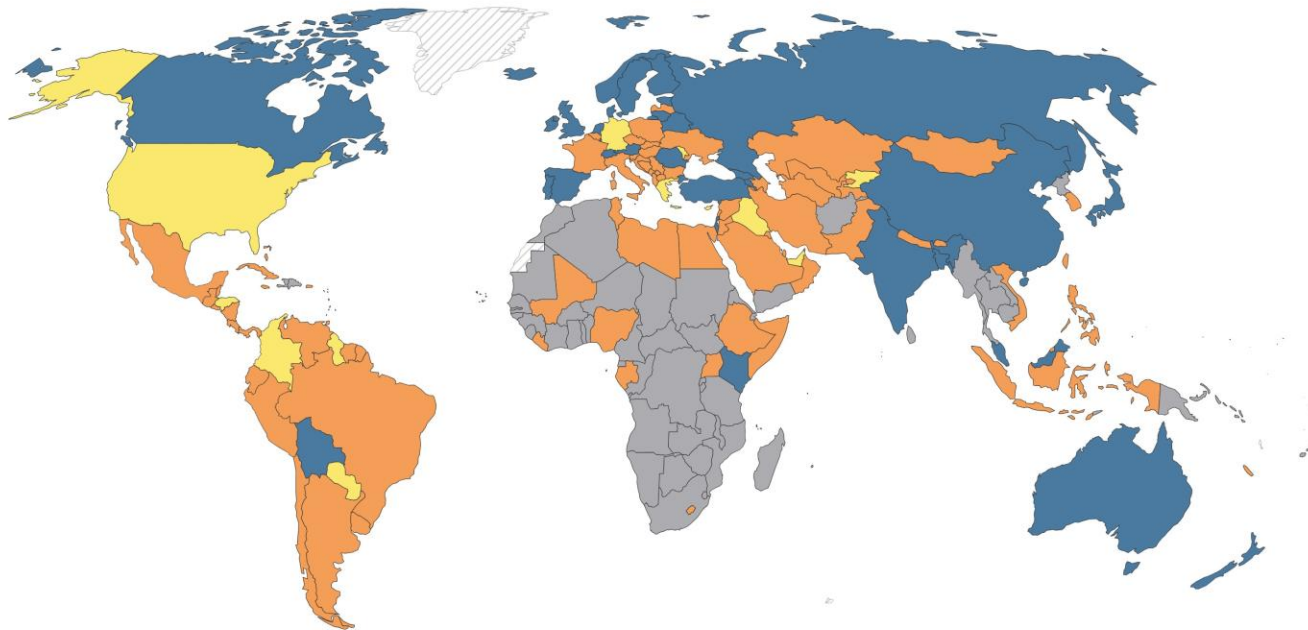




## Which countries have mandatory childhood vaccination policies?

Countries are mapped based on having requirements or recommendations for at least one vaccine in 2019.

Our World  
in Data



■ Mandatory ■ Mandatory for School Entry ■ No source found ■ Recommended

Data source: Vanderslott & Marks (2021). Charting mandatory childhood vaccination policies worldwide. Vaccine.

Note: Policies can vary at the state level in some countries.

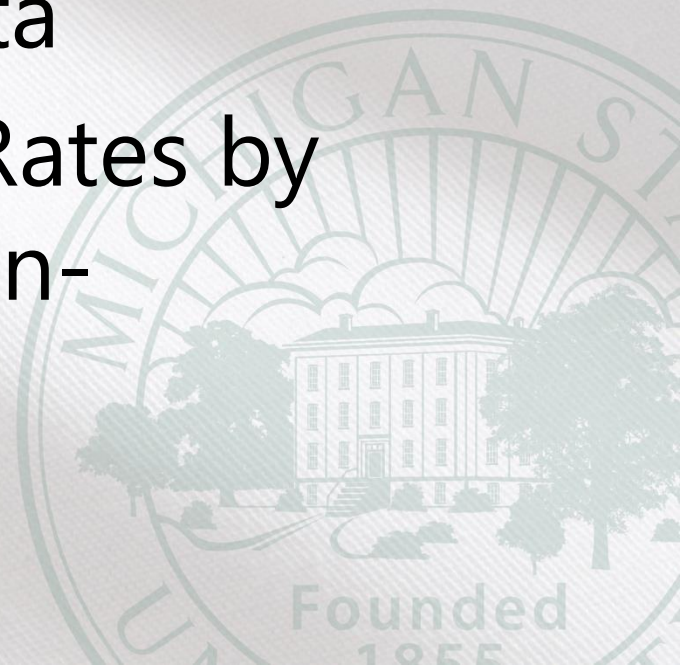
[OurWorldInData.org/vaccination](https://OurWorldInData.org/vaccination) | CC BY



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## > Data Source

- Public Data from MCIR
- Communication between IHP and Immunization Division
- Cleaning Acquired Data
- Reporting of Vaccine Rates by Race, Gender, Age, Non-Medicaid, Medicaid





# Michigan County Report Cards

# COUNTY QUARTERLY IMMUNIZATION REPORT CARD

Ingham	Data as of: September 30, 2023
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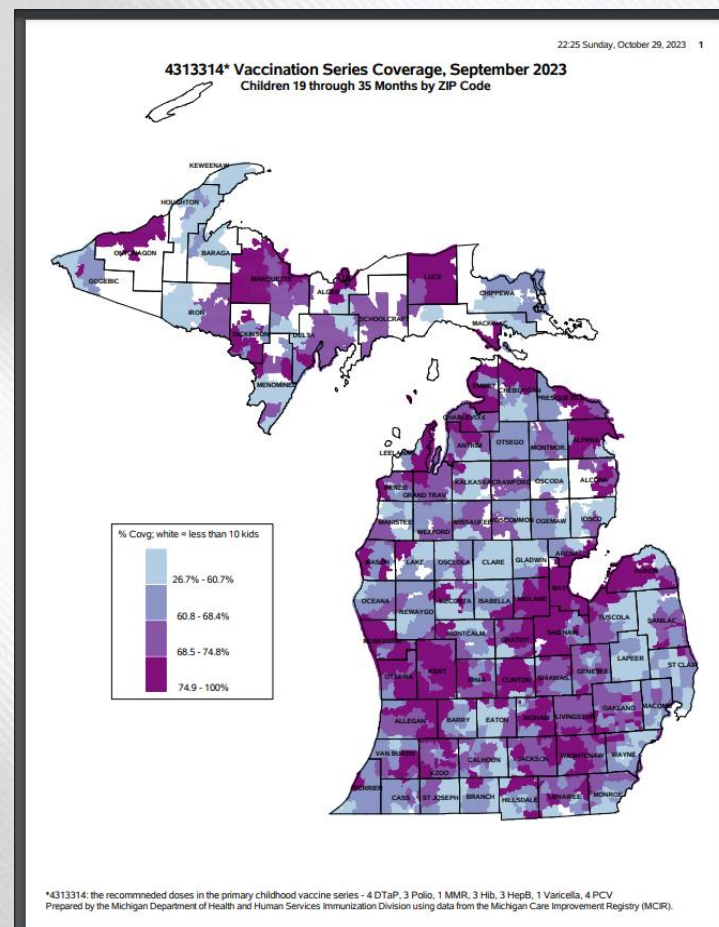
Population	2020 Census	MCIR	Diff.	% Diff.
Total	284,900	384,957	-100,057	-35
Adults (20yrs+)	214,052	305,273	-91,221	-42
Children (0-19yrs)	70,848	79,684	-8,836	-12

Michigan is ranked 26th for 4313314 coverage (2018 NIS data)
<b>Your County Immunization Rank</b> n = 84 counties
<b>43133142 Coverage:</b> 56 (19-35mos)
<b>1323213 Coverage:</b> 42 (13-17 years)
<b>Flu Coverage :</b> 10 (6 months through 8 years, complete)

Immunization Sites	Count	%
Active MCIR Immunization Sites	208	
Reported in the last 6 months	176	84
Active Vaccines for Children (VFC) Sites	35	
Reported in the last 6 months	35	100

## Immunization Coverage Levels, Rankings and Goals by Select Vaccines and Age Groups

Measure	Ingham (MCIR)	% Diff *	MI Avg (MCIR)	US Average 2018 NIS	Your County Rank (n=84)	HP Goal
<b>19 through 35 months</b>						
Birth Dose Hep B coverage	Y	Y	Y	79.6	Y	85
4313314 coverage†	66.3	0.2	66.8	75.4	45	80
43133142 coverage†	50.9	1.1	54.3	—	56	—
2+ Hep A	52.5	1.3	56.1	77.4	56	85
4+ DTaP	68.4	0.4	69.7	87.2	53	90
PCV Complete	74.3	0.2	74.9	86.0	54	90 <sup>d</sup>
Rota. Complete (8-24 months)	66.1	1.3	64.9	—	37	—
WIC coverage (4313314)	72.6	1.9	72.9	67.3 <sup>a</sup>	60	—
Medicaid coverage (4313314)	67.7	0.6	67.5	—	57	—
<b>13 through 17 years</b>						
132321 coverage†	68.9	-0.7	72.6	—	72	—
1323213 coverage†	43.4	0.1	43.0	—	42	—
1+ Tdap	72.8	0.0	75.9	90.1	69	80
1+ MenACWY	74.0	-0.2	76.6	89.3	69	80
HPV Complete (Females)	46.6	0.2	45.7	61.4	36	80 <sup>d</sup>
HPV Complete (Males)	43.6	0.4	43.4	56.0	44	80 <sup>d</sup>
MenACWY Complete (17yrs)	42.0	0.1	42.7	54.4 <sup>b</sup>	44	—
1+ MenB (16 through 18yrs)	25.0	1.6	27.1	—	53	—
<b>Adults (Census Denominators)</b>						
1+ Tdap (19-64yrs)	54.0	0.0	51.3	33.5	30	—
Pneumo Complete (65yrs+)*	63.4	1.0	52.0	43.2 <sup>c</sup>	20	—
Zoster (50yrs+)	47.0	-0.6	33.3	24.1	8	30
Composite Measure (19yrs+)*	10.9	0.3	9.0	—	26	—
<b>2022-23 Influenza Season</b>						
Flu Complete (6mos-8yrs)	28.8	14.4	23.8	—	10	70 <sup>d</sup>
1+ Flu (6mos through 17yrs)	28.1	14.1	23.0	57.8	10	70 <sup>d</sup>
1+ Flu (18yrs+)	35.2	-6.6	32.1	49.4	27	70 <sup>d</sup>
<b>School/Childcare (Feb '23)</b>						
School/Childcare (Feb '23)	Ingham	MI Avg	Ingham	Ingham	Ingham	Rank
School Completion	92.2	0.1	91.4	—	—	22
Reported in the last 6 months	22.2	0.0	22.0	—	—	46



4313314(2): 4 DTaP, 3 Polio, 1 MMR, 3 Hib, 3 HepB, 1 Varicella, 4 PCV, (2 HepA)

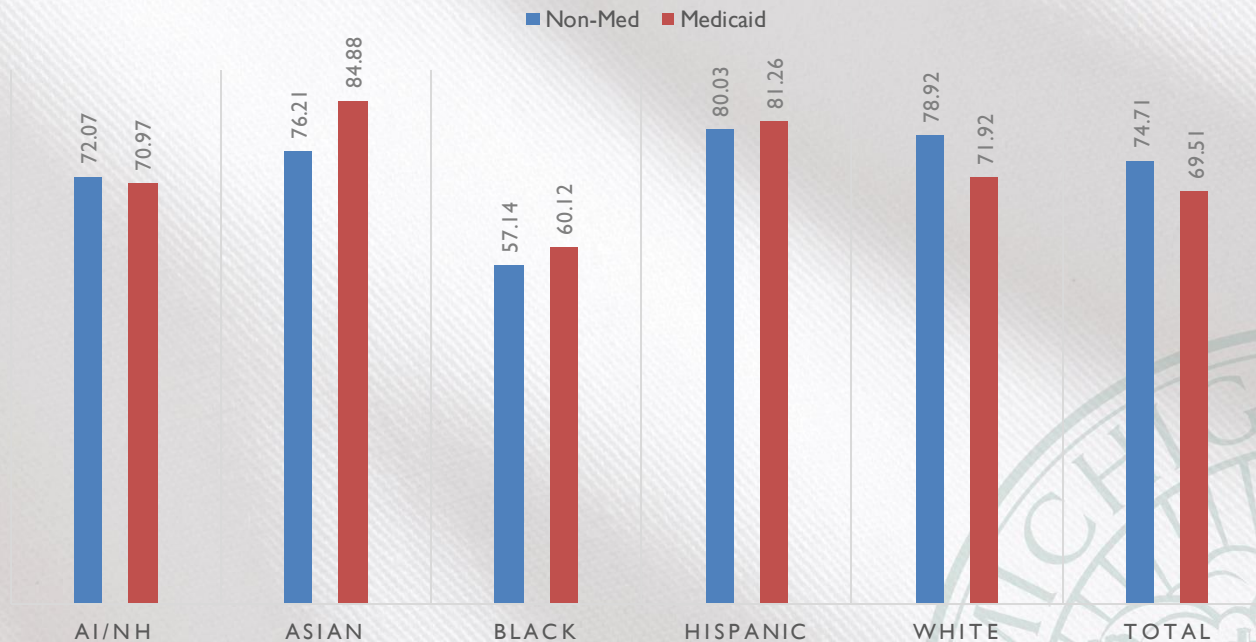


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<https://www.michigan.gov/mdhhs/adult-child-serv/childrenfamilies/immunization/localhealthdepartment/county-immunization-report-card>

# > Child Vaccine Coverage by Race (MI)

## 2019 VACCINE COVERAGE CHILD 19 - 35 MONTHS OF AGE



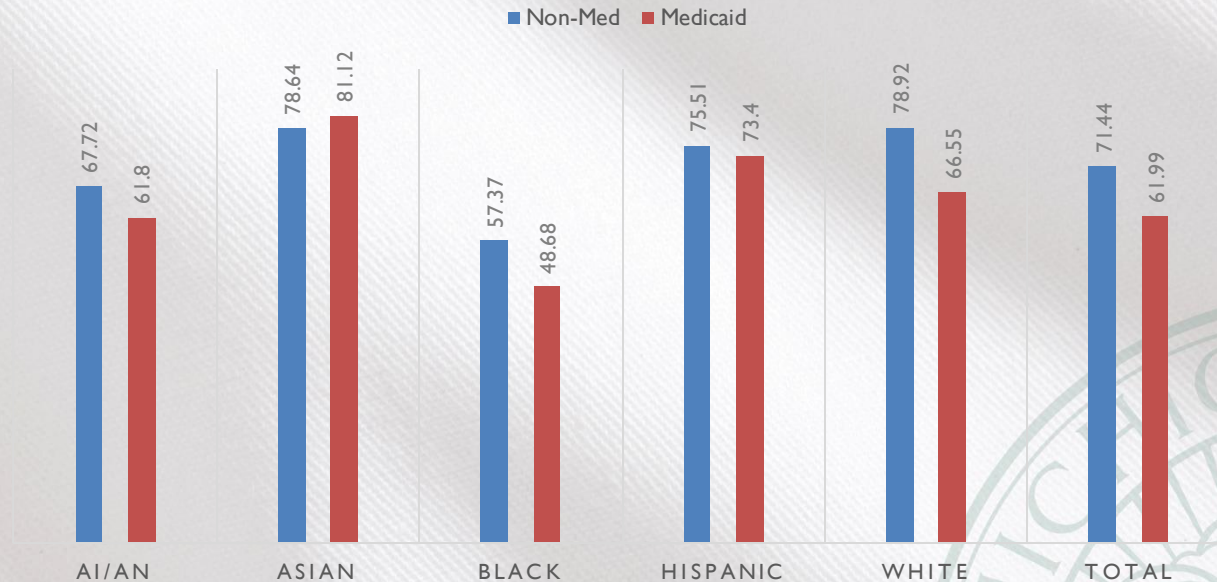
Rates by percentage. Total is for all races, including those not shown (other, unknown).



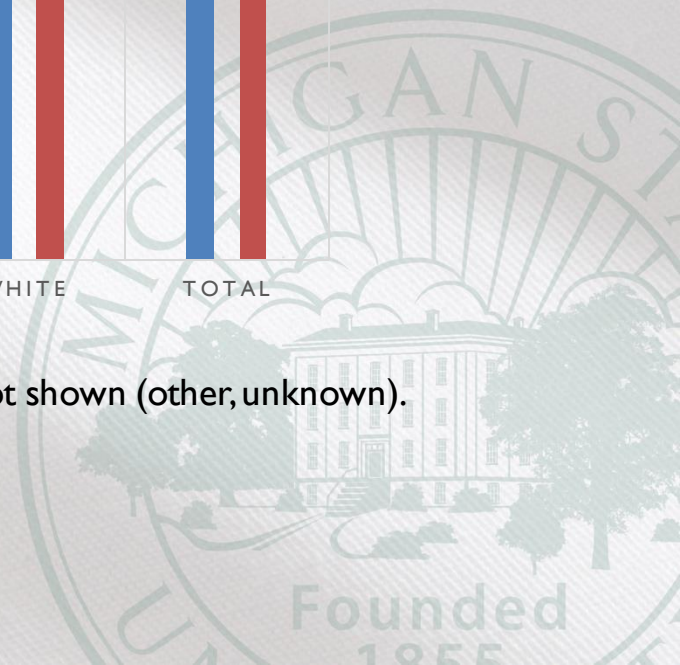


# > Child Vaccine Coverage by Race (MI)

## 2022 VACCINE COVERAGE CHILD 19 - 35 MONTHS OF AGE



Rates by percentage. Total is for all races, including those not shown (other, unknown).



# > Child Vaccine Coverage by Race (MI)

## Change in Child Vaccination Rates 19 -36 months Pre and Post COVID-19

Insurance	Non-Medicaid		Medicaid	
	2019	2022	2019	2022
AI/AN	72.07	67.27 ↓	70.97	61.80 ↓
Asian	76.21	78.84	84.88	81.12 ↓
Black	57.14	57.37	60.12	48.68 ↓
Hispanic	80.03	75.51 ↓	81.26	73.40 ↓
White	78.92	78.92	71.91	66.55 ↓
Total	74.71	71.44 ↓	69.51	61.99 ↓

Rates by percentage. Total is for all races, including those not shown (other, unknown).

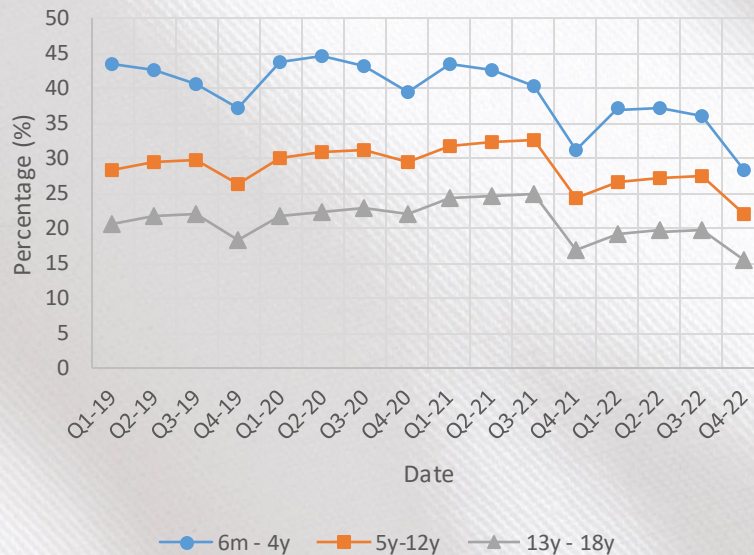




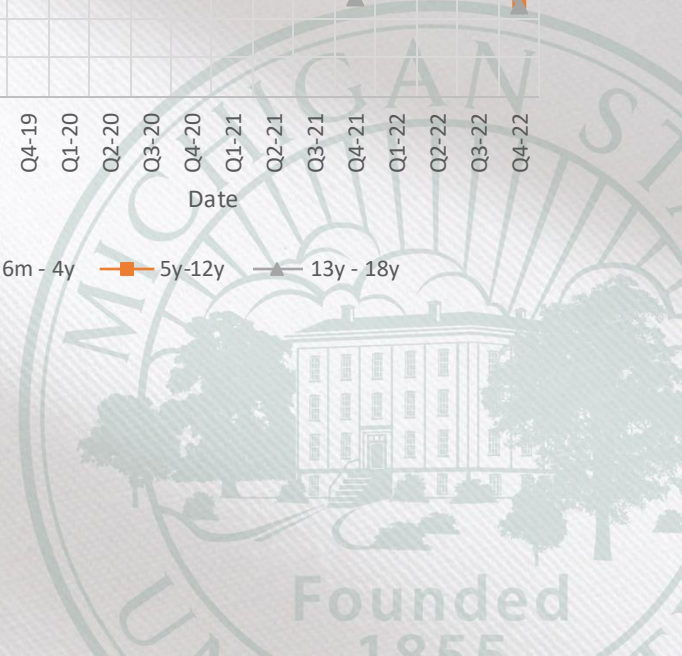
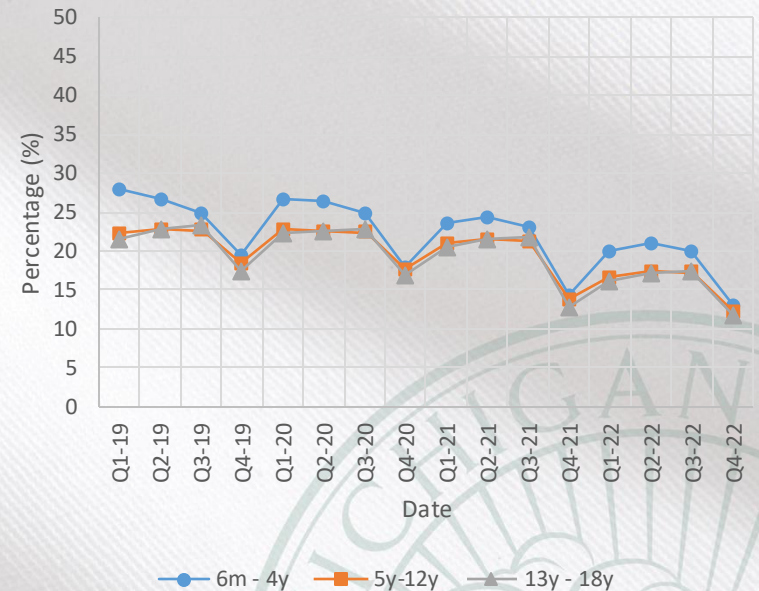
# Child Flu Vaccine Coverage by Quarters

## Child Flu Vaccination Rates by age

Non-Medicaid child coverage (%) for flu stratified by age

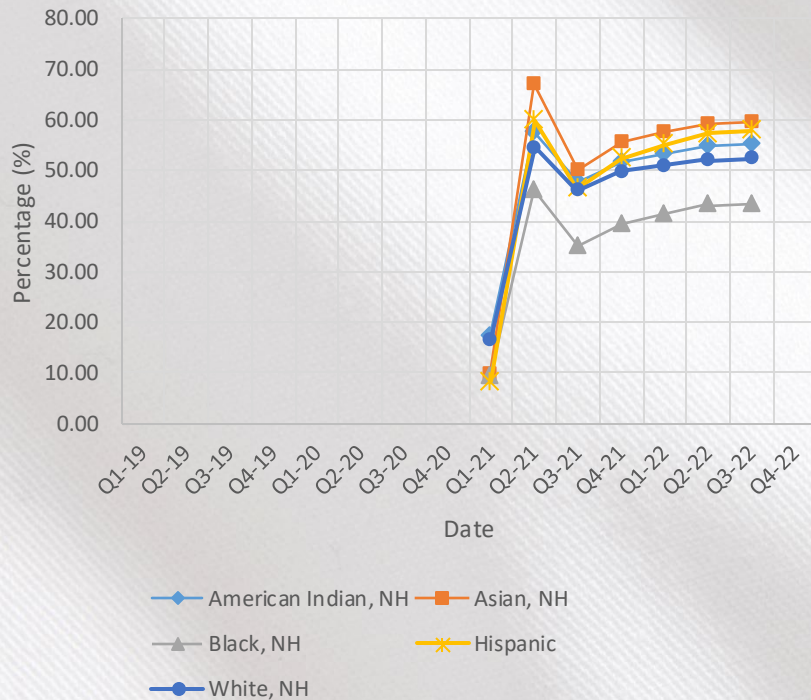


Medicaid child coverage (%) for flu stratified by age

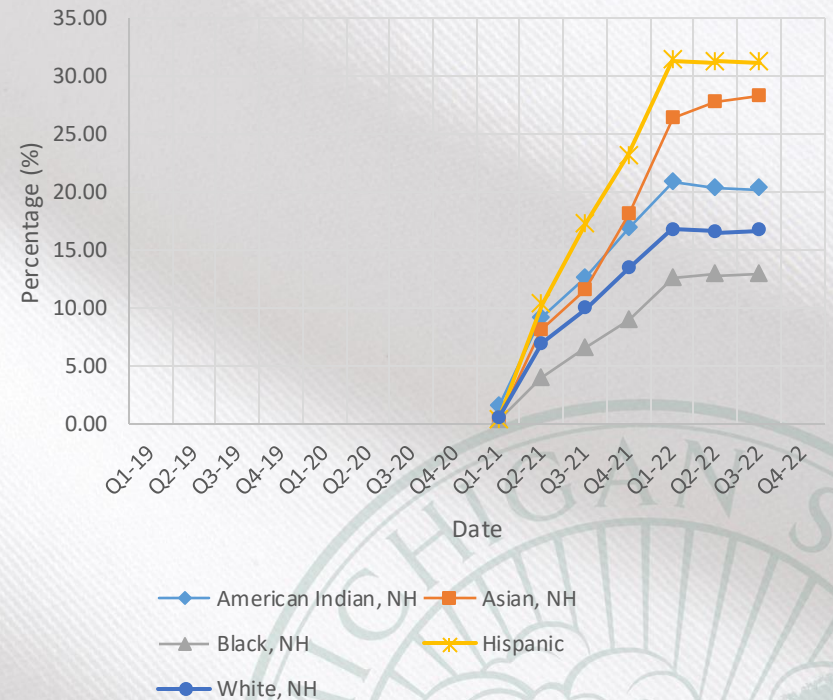


# COVID-19 Adult Vaccine Uptake

Non-Medicaid coverage (%) for COVID primary series stratified by race



Medicaid coverage (%) for COVID primary series stratified by race



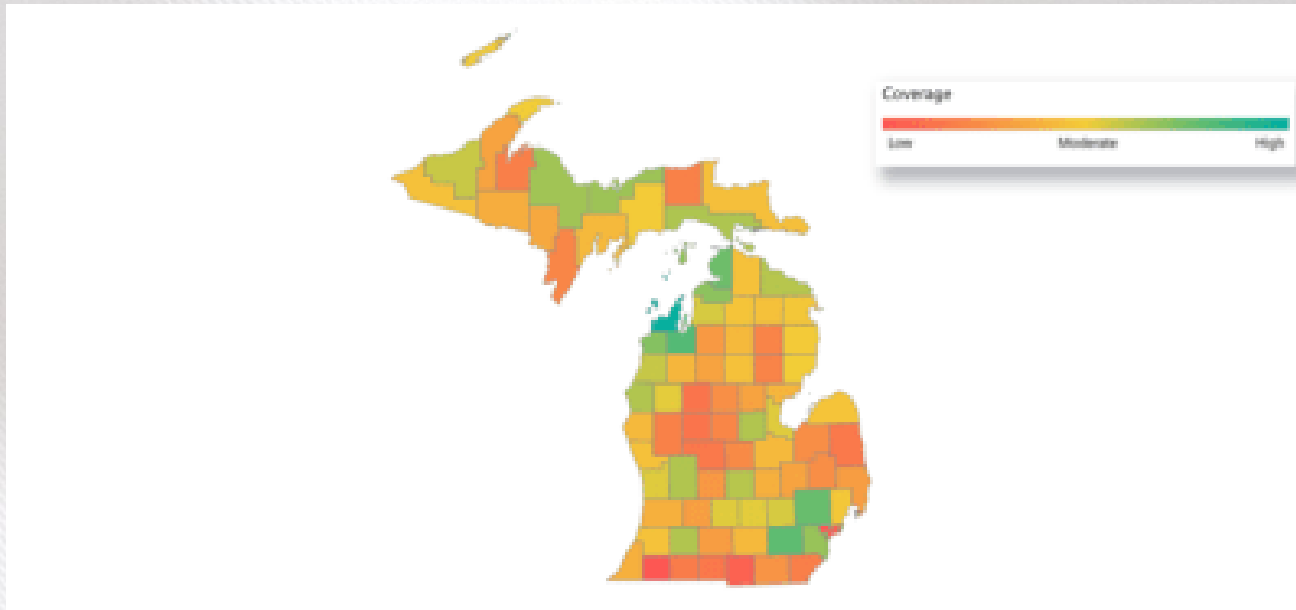
- Peak for Non-Medicaid Q2-2021, Medicaid Q1-2022.
- Racial disparity in uptake. Consider barriers.





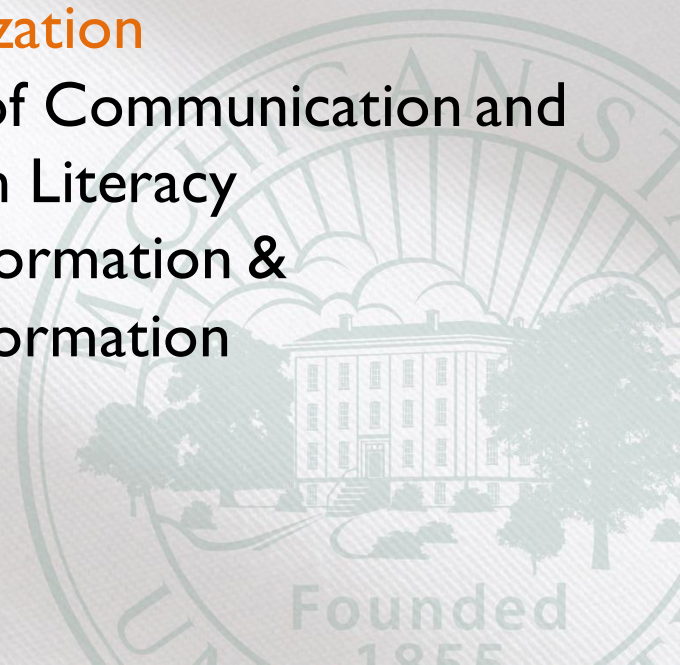
# > Michigan COVID-19 Vaccine Rates

	One Dose	Primary Series	Booster
U.S.	81.4	69.5	17.0
Michigan	70.0	62.9	--



# ➤ Controversy and Barriers

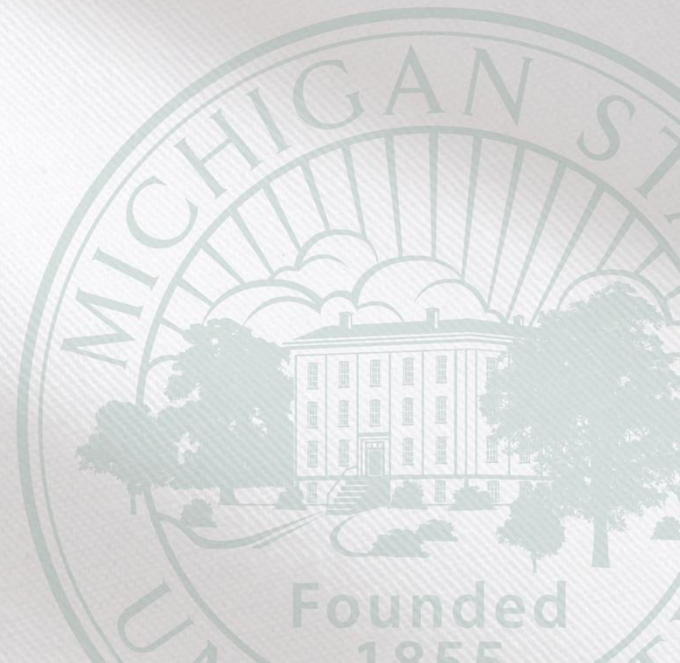
- Historical Abuse & Medical Mistrust
- Safety & Side Effects
- Rapid Vaccine Development
- Personal Freedom vs. Government Mandates
- Religious & Philosophical Beliefs
- Misinformation & Social Media
- Fear and Anxiety
- Distrust in Government & Healthcare
- Cultural & Personal Beliefs
- Access & Convenience
- Political & Societal Polarization
- Lack of Communication and Health Literacy
- Misinformation & Disinformation





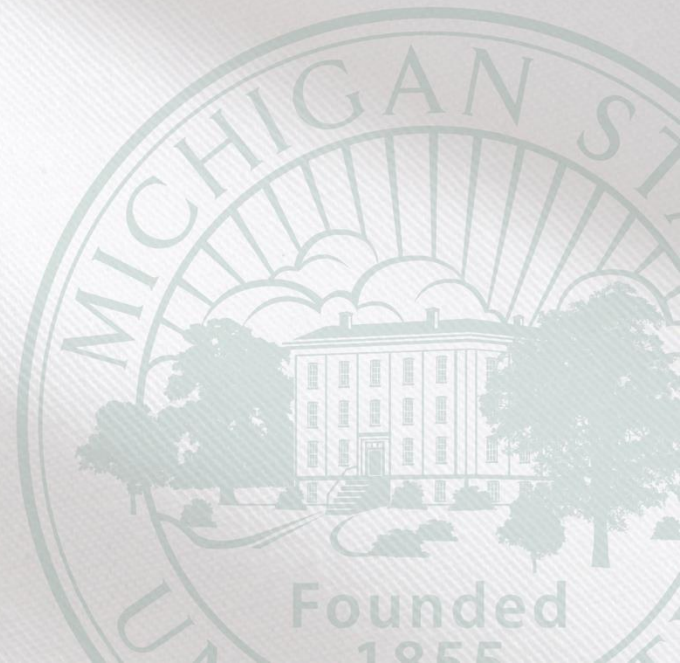
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- Multilevel Approach/Multicultural
  - e.g., cancer models, systems, community, provider, patient



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- Health Literacy/Health Communication
- Cognitive Shift in Medical Mistrust



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- Reframe freedom of choice





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- Reframe freedom of choice
- De-politicize



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- Multilevel Approach/Multicultural
  - , e.g., cancer models, systems, community, provider, patient
- Health Literacy/Health Communication
- Cognitive Shift in Medical Mistrust
- Reframe freedom of choice
- De-politicize
- Health Equity Strategies





## ➤ Policy Approaches

- Multilevel Approach/Multicultural
  - e.g., cancer models, systems, community, provider, patient
- Health Literacy/Health Communication
- Cognitive Shift in Medical Mistrust
- Reframe freedom of choice
- De-politicize
- Health Equity
- **Overall, need a clear, consistent policy**



## ➤ Parting Thoughts

*“Facts are stubborn things; and whatever may be our wishes, our inclinations, or the dictates of our passions, they cannot alter the state of facts and evidence...”*

