

State Hazard Mitigation Plans and Social Vulnerability

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State Hazard Mitigation Plans

State Hazard Mitigation Plans (SHMPs) establish programs, projects, and protocols for how states will lessen harm from natural hazards using long-term strategies.

SHMPs set priorities, such as deciding which infrastructure is critical or determining the specific populations that need extra protection from harm.

FEMA requires each state, tribal area, and territory to develop a SHMP, which must be updated every five years, for the locality to be eligible to apply for disaster relief grants and funding for disaster mitigation.

Social Vulnerability

Social vulnerability refers to historical, social, political, economic, and cultural dimensions that influence the ability of people and entire groups to prepare for, cope with, and recover from a natural hazard event.

Socially vulnerable populations can experience worsening inequalities that already exist in the wake of a disaster.

Understanding social vulnerability is crucial for emergency management, as identifying and locating these populations can reduce harm caused by natural hazards.

Methods

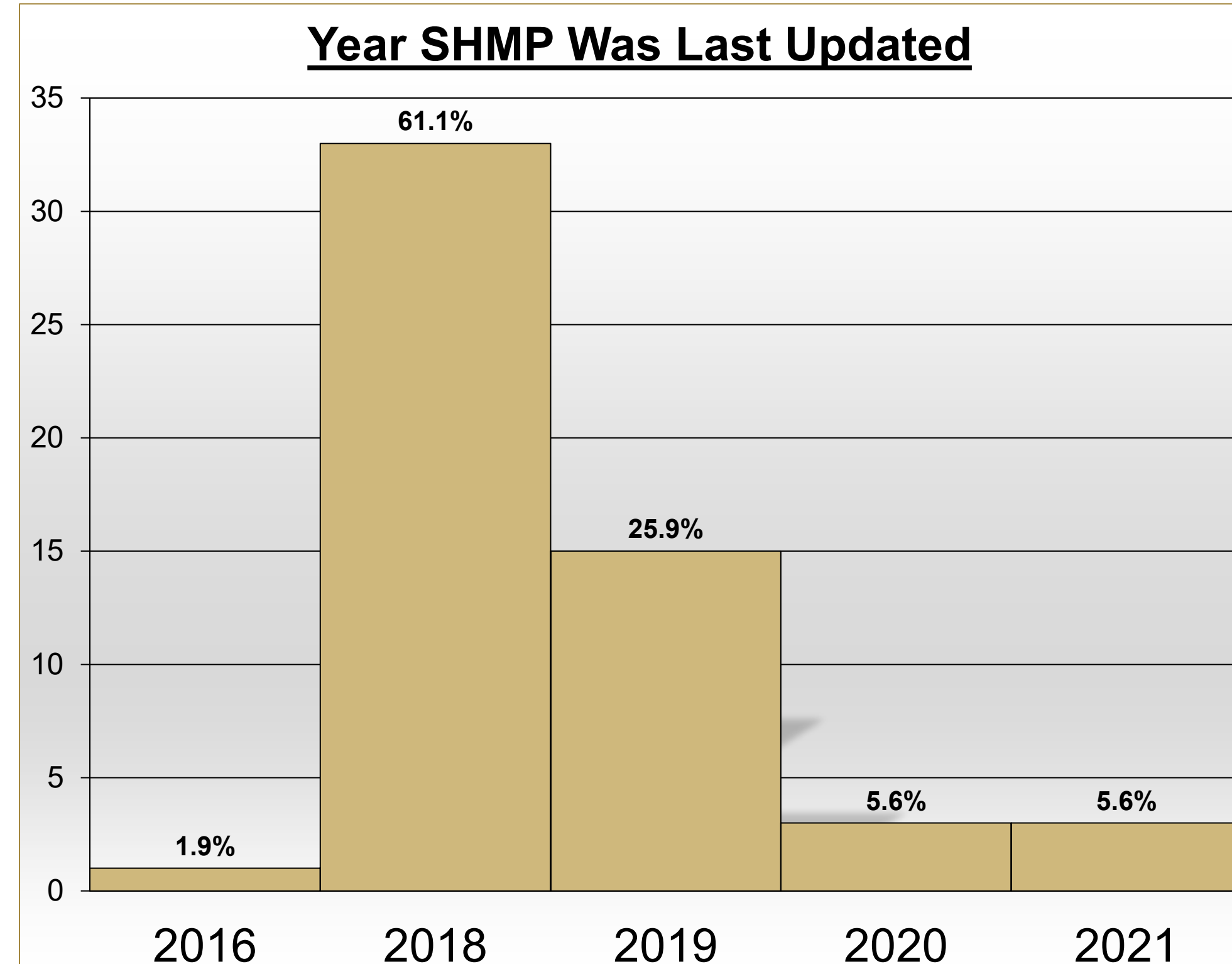
Our research team constructed a database of publicly available SHMPs for all 50 U.S. states and the 5 inhabited U.S. territories. The database includes SHMP title, responsible agency, corresponding web link, length of the document, the last date updated, and columns for several socially vulnerable populations identified in the hazards and disaster literature.

Members of the research team reviewed the SHMPs, constructing both counts and qualitative descriptors of the populations addressed in the plans, the data sources that were used, and the definitions that SHMPs draw on to characterize vulnerability and social marginalization.

1 How do SHMPs characterize and measure social vulnerability?

2 What socially vulnerable populations are included (and excluded) from SHMPs?

3 How is social vulnerability (and equity) being integrated into plans that are being renewed in 2023 and 2024?



Populations Groups	
Referenced in SHMPs	Percent SHMPs with Reference
Elderly	100.0%
Children	89.1%
People with Disabilities or Medical Issues	89.1%
People in Poverty / Low-Income Populations	70.9%
Infant(s)	50.9%
Non-English-Speaking Populations	41.8%
Racial Minorities	40.0%
People with Disabilities or Medical Issues (Elderly)	38.2%
Vulnerable Workers / Occupation Related Vulnerability	38.2%
Populations with Language Barriers	36.4%
Ethnic Minorities	32.7%
Unhoused Populations	32.7%
Pregnant Women / Pregnant People	29.1%
Unemployed Populations	25.5%
Minorities (Unspecified Groups)	21.8%
Women	14.5%
Gender	14.5%
People with Lower Educational Attainment	14.5%
Methadone, Opioid, or other Substance Dependent Populations	14.5%
People Who are Incarcerated / Prisoners	10.9%
Immigrants	9.1%
Men	7.3%
LGBTQAI+ Populations	7.3%
Refugees	7.3%
Religious Minorities	7.3%
Veterans	5.5%
Girls	3.6%
Gender Minorities	1.8%
Boys	0.0%

Transportation, Place, and Housing	
Referenced in SHMPs	Percent SHMPs with Reference
Housing – Mobile Homes	50.9%
Rural Areas	49.1%
Housing – Density	45.5%
Housing – Quality	40.0%
Housing – Other	30.9%
Tribal Lands	29.1%
No Vehicle Access	23.6%
Transportation Access Issues - Other	23.6%
Housing - Renters	21.8%
Housing – Near Industrial or Nuclear Plants	21.8%
Institutional Quality and/or Issues	12.7%
Housing - Affordability	9.1%
Housing – Uninsured / Underinsured	7.3%

87% of SHMPs are up for renewal in 2023 or 2024.

61.8% of SHMPs refer to “social vulnerability” as a concept; definitions vary widely.

43.6% of SHMPs use an index (such as the CDC’s Social Vulnerability Index) to identify, locate, and measure socially vulnerable populations.

Elderly, children, people with disabilities, and/or those with chronic medical issues are mentioned most frequently in SHMPs.

Other often mentioned populations include those in poverty or with low incomes (70.9%), infants (50.9%), those living in mobile homes (50.9%), and those in rural areas (49.1%).

Of the 42 populations within the dataset, 17 of the socially vulnerable populations are mentioned in 8 SHMPs or less, including women (14.5%), incarcerated populations (10.9%), LGBTQAI+ persons (7.3%), and gender minorities (1.8%).

Next Steps and Future Research

Our team is currently drafting an article and research report summarizing the findings from this initial review of SHMPs. In future research this summer, our team will interview State Hazard Mitigation Officers (SHMOs) in the Midwestern U.S. to understand opportunities and barriers to incorporating socially vulnerable populations in SHMPs.

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