

VULNERABILITY TO ARSENIC IN WELL WATER IN MAINE



INTRODUCTION

Private, residential wells provide drinking water for more than half of the homes in Maine. Yet many low-income households in Maine cannot afford the high costs of periodic testing for arsenic in their water.

How can policy makers estimate how many low-income people are impacted by arsenic levels in their drinking water that exceed acceptable State standards?

Maine Geological Survey estimates that there are about 70,000 private wells in Maine. Between 1999 and 2013, the State of Maine Health and Environmental Testing Laboratory tested **51,347** of these private wells by county.

5,223 of them had levels of arsenic above acceptable State standards.



This database represents a huge sample of the total number of private wells per county in Maine.

Although the data spans two decades, it still provides a reasonable basis for estimating the number of low-income people who are now affected by wells that exceed Maine's quality standards levels for arsenic.

INTRODUCTION

To determine the number of low-income residents impacted in each county, we use specific demographic information provided by the Maine Center for Workforce Research and Information.

These indicators include poverty rates, unemployment rates and the percentages of people 60-years of age and older for every county.

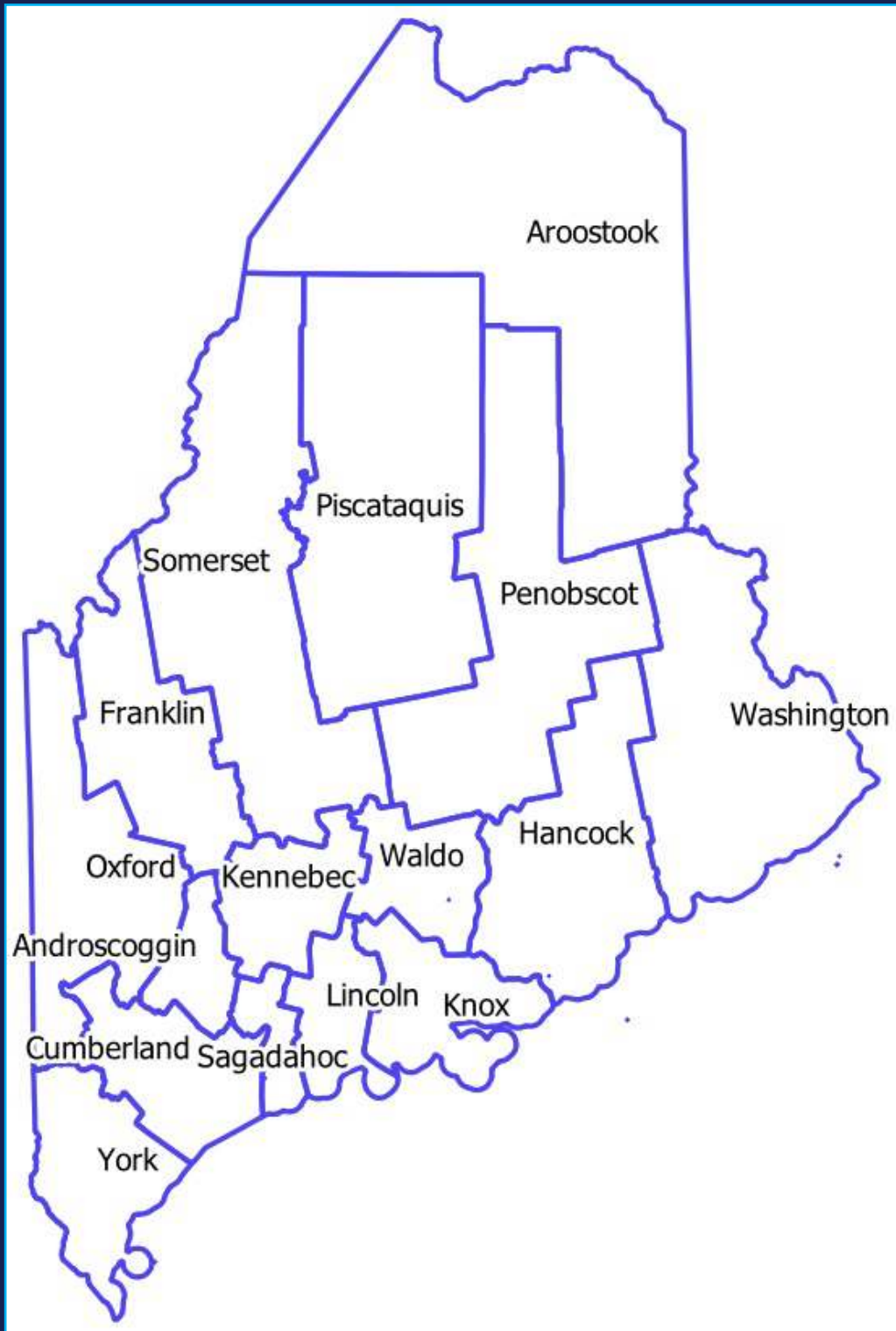
We multiply these percentages by the population of each county and multiply these results by the percentage of wells that failed to meet the standards for arsenic in that county.

This creates a proximate profile of the low-income population which is impacted by unacceptable levels of arsenic in every county of Maine.

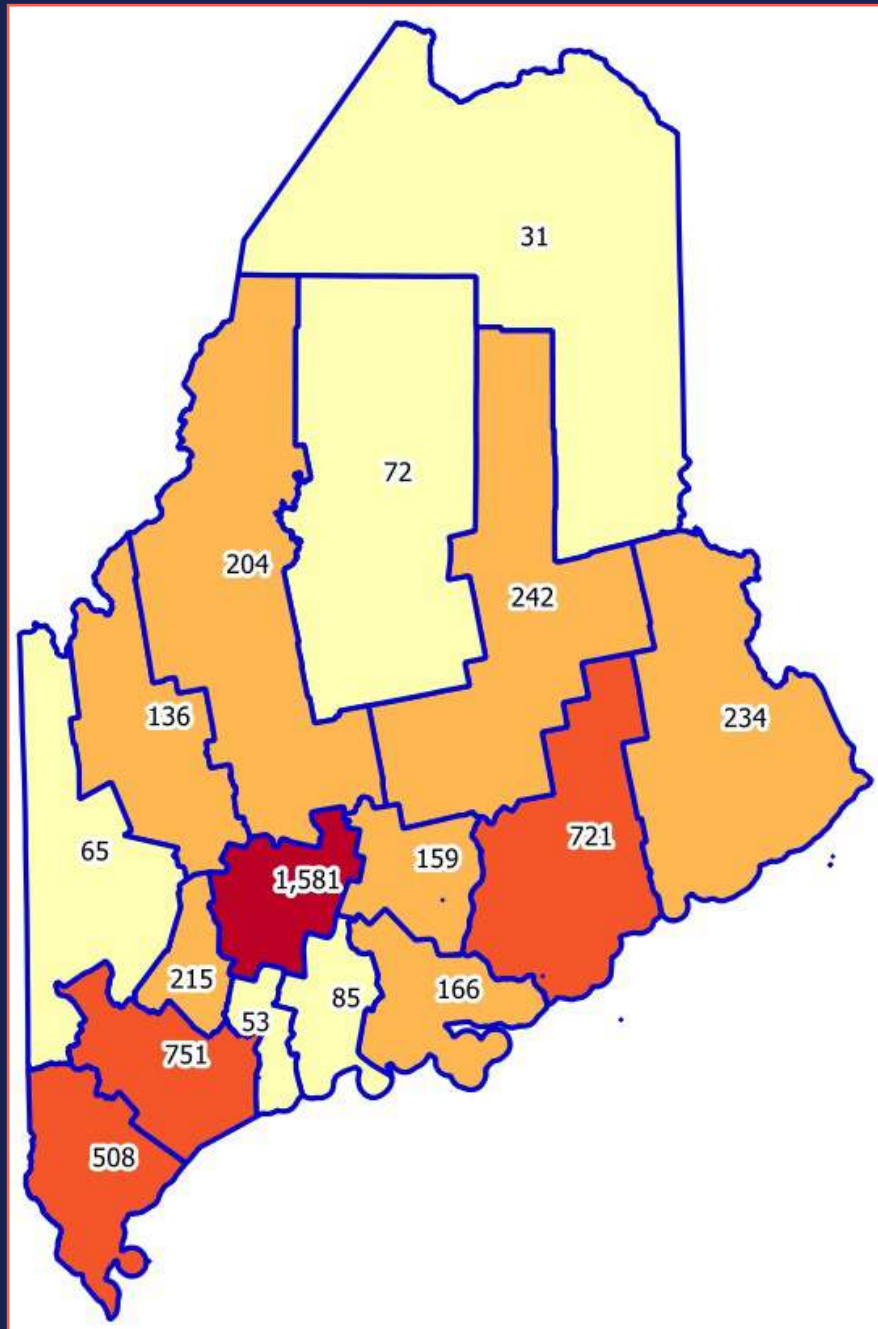
Here are the results...



THE COUNTIES OF MAINE

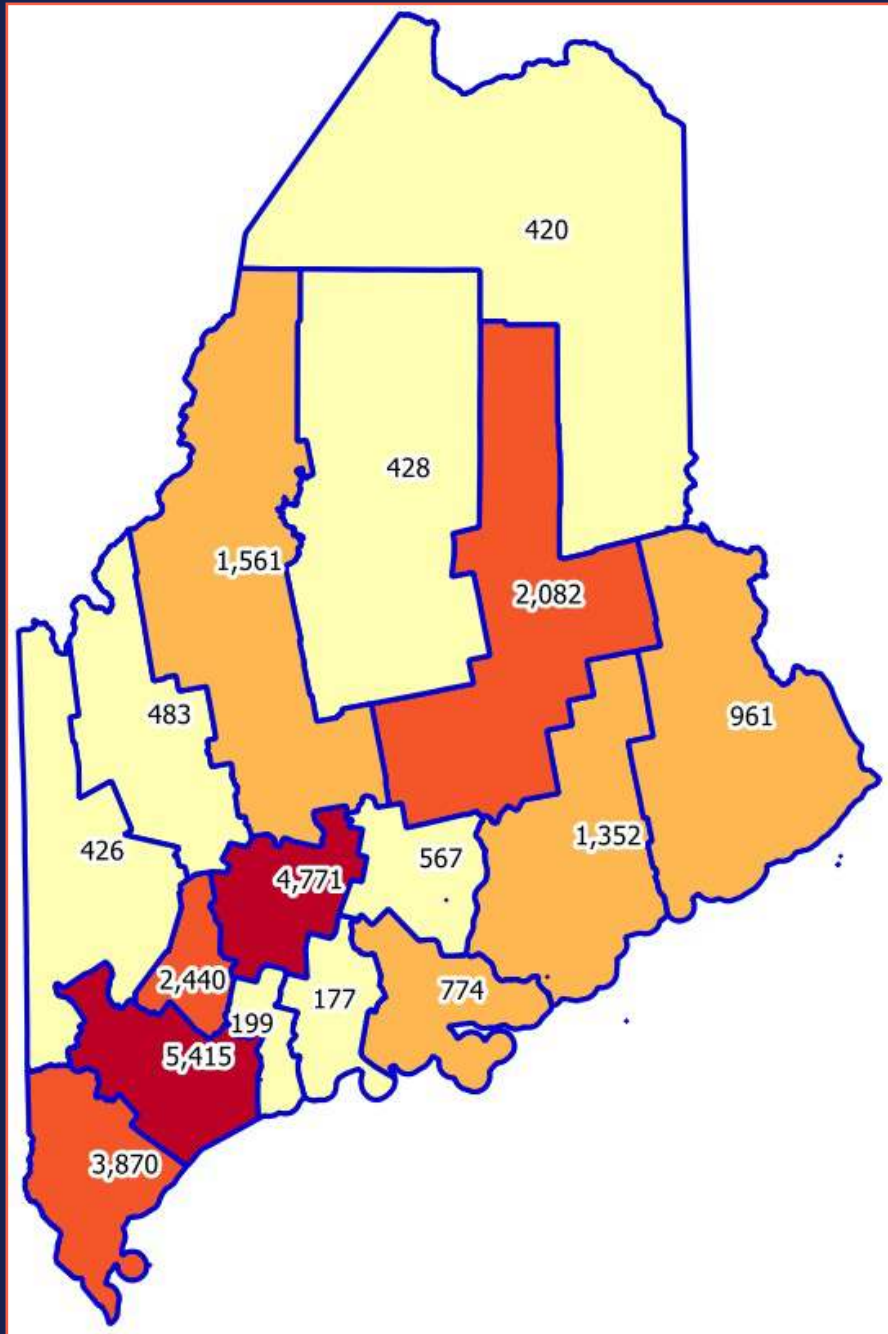


NUMBER OF PRIVATE WELLS THAT FAIL THE ARSENIC TEST



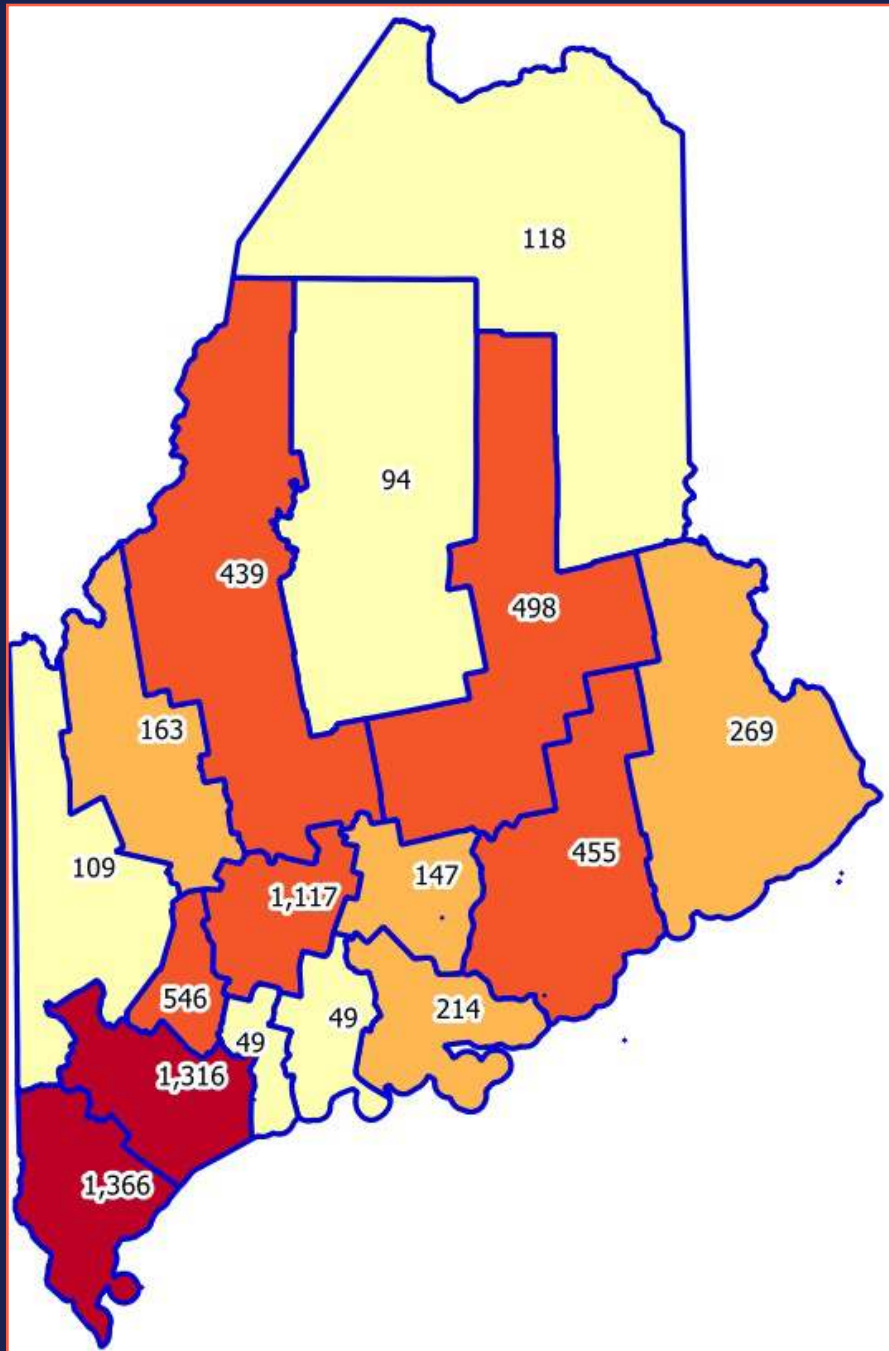
Based on acceptable State water standards by county

POPULATION UNDER THE POVERTY LINE WHO ARE AFFECTED



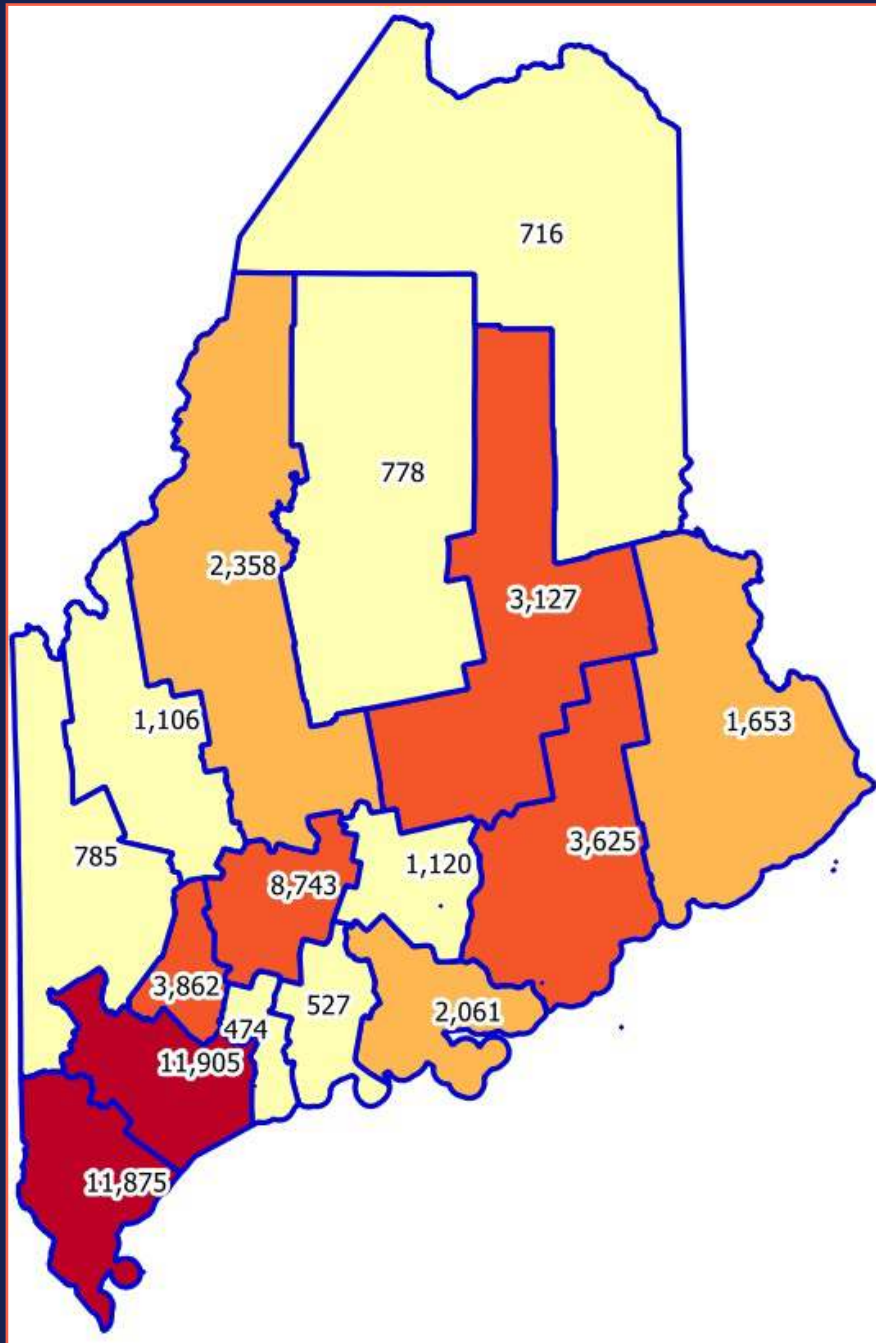
Based on acceptable State water standards by county

UNEMPLOYED POPULATION AFFECTED BY ARSENIC LEVELS



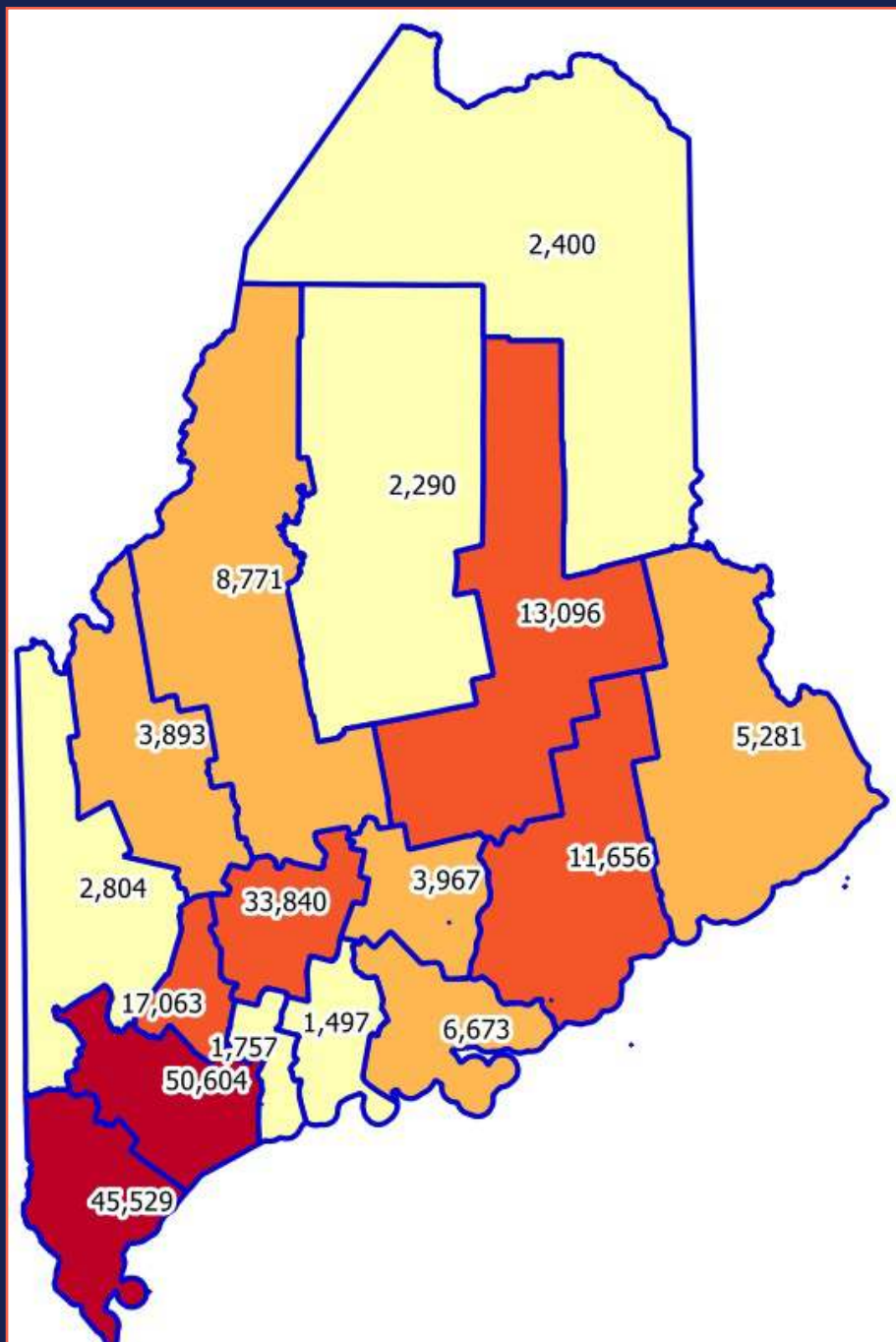
Based on acceptable State water standards by county

POPULATION AGED 60+ AFFECTED BY ARSENIC LEVELS



Based on acceptable State water standards by county

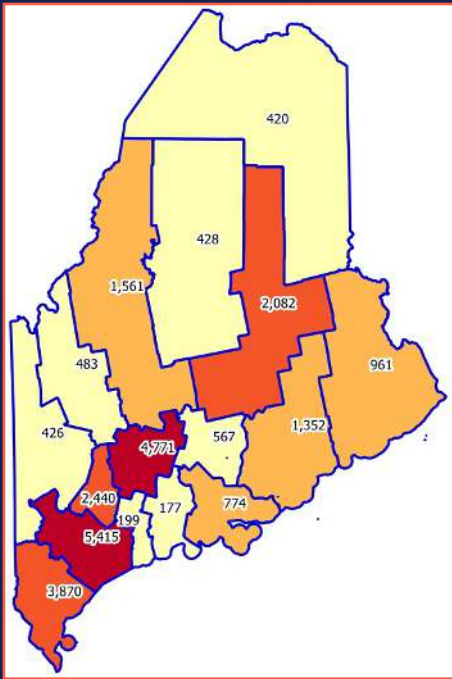
TOTAL POPULATION AFFECTED BY ARSENIC LEVELS



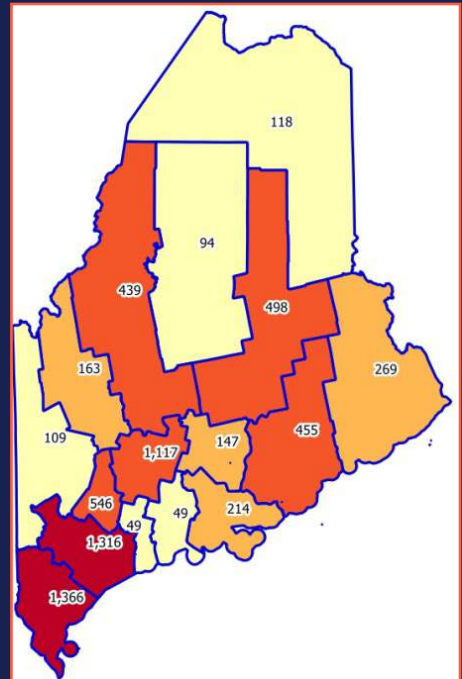
Based on acceptable State water standards by county

TOTAL NUMBER OF PEOPLE AFFECTED BY EXCESSIVE ARSENIC IN PRIVATE WELL WATER

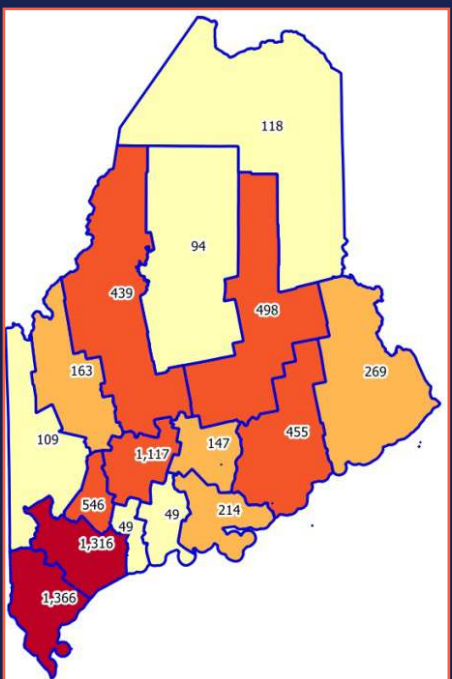
Impoverished



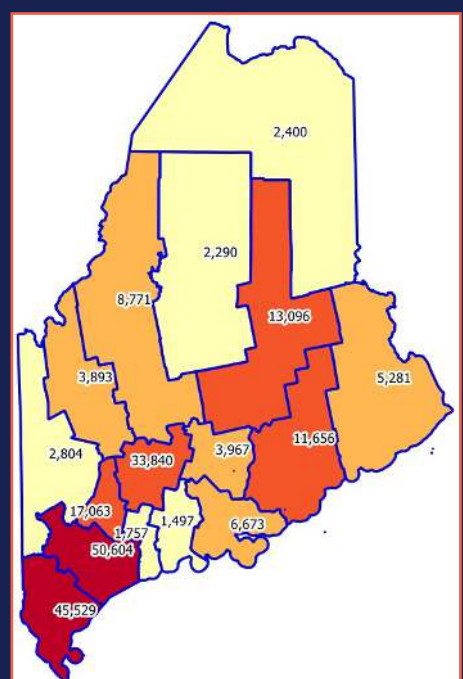
Unemployed

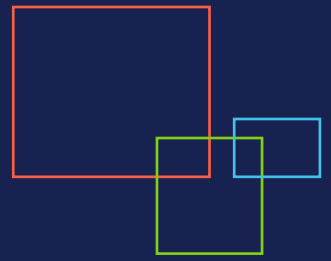


Aged 60 +



Total affected





Created by the EDA Research team
and Alliance for Economic Democracy

Data courtesy of Maine Health and
Environmental Testing Laboratory, Maine
Tracking Network and Maine Center for
Workforce Research and Information