

Pleural Malignancy (ICD-9 Code 163)

Malignant neoplasm of pleura (ICD-9 code 163) is a disease category that might be expected to include pleural malignant mesothelioma, a tumor type that is strongly associated with asbestos exposure. Although malignant mesothelioma is the most common primary malignant neoplasm of the pleura, in practice this ICD-9 code 163 is by no means entirely specific or sensitive with respect to identifying malignant mesothelioma deaths [Davis et al. 1992].

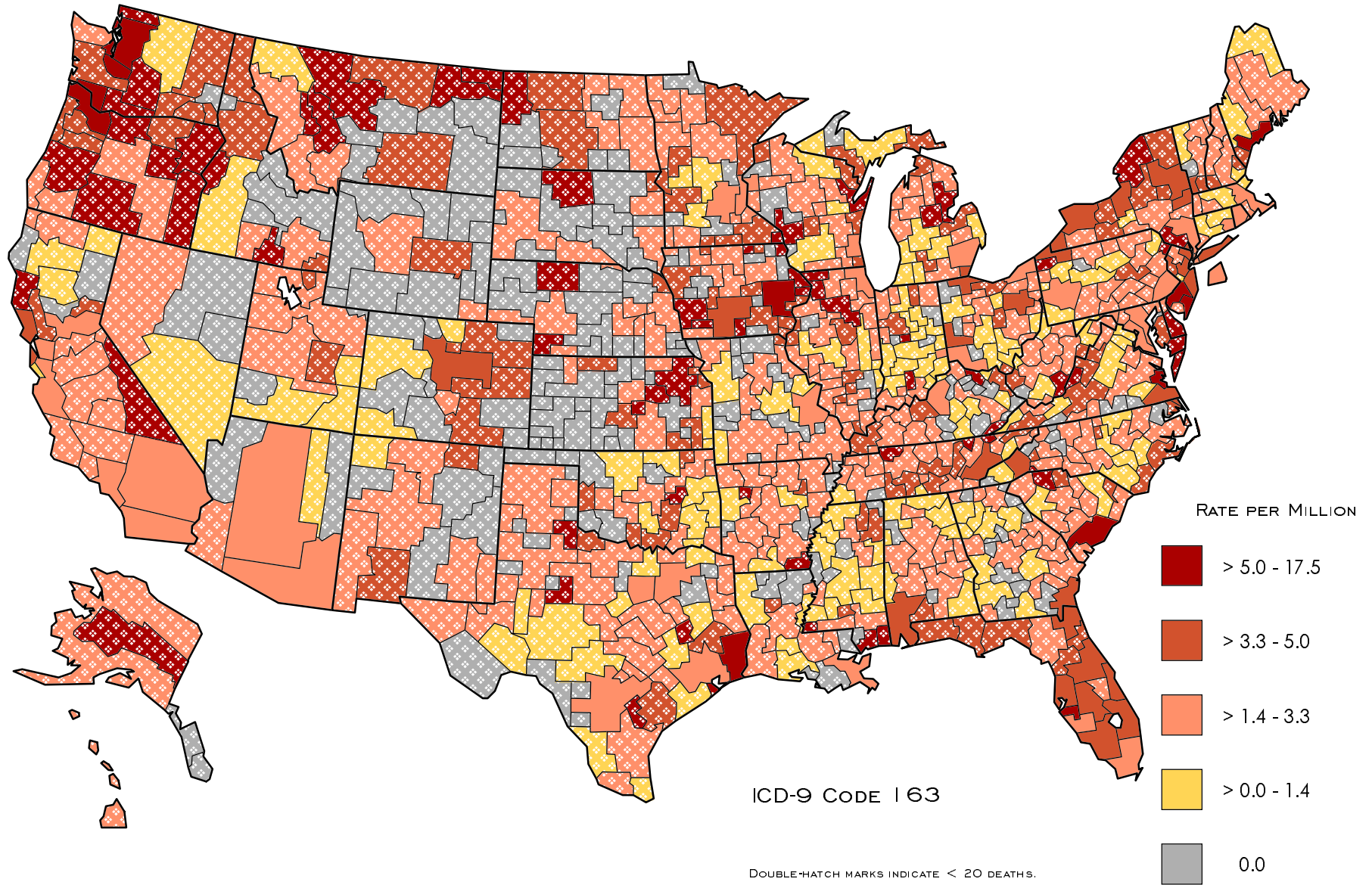
Amphibole fiber types, especially crocidolite, appear to be the most potent inducers of malignant mesothelioma. However, chrysotile exposure can also cause this disease [Ross and McDonald 1995]. Therefore, all occupational groups exposed to asbestos are at risk of developing asbestos-related pleural malignancy. Apart from crocidolite miners and millers, occupations with high risk include shipyard workers, insulation workers, and workers employed in construction trades. Approximately 85 percent of individuals with malignant mesothelioma have a history of asbestos exposure [Rom 1992].

Malignant mesothelioma is also caused by nonoccupational environmental exposure to asbestos and related fibers. High risk of mesothelioma has been documented among family members of asbestos workers [Anderson et al. 1979] and among the general population living in a region of Turkey where nonoccupational exposures to zeolite (erionite) fibers are prevalent [Wakeman and Lockey 1994].

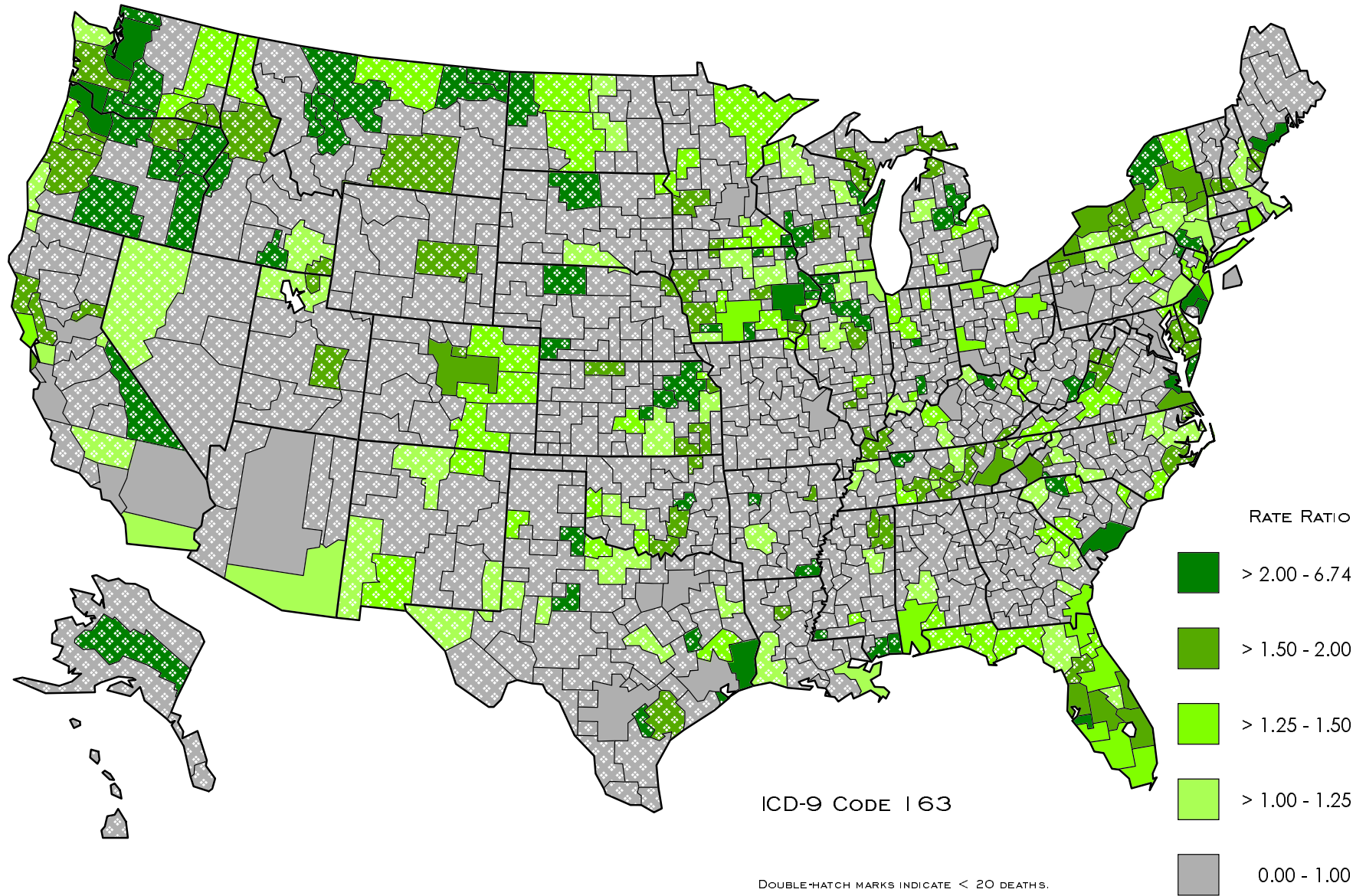
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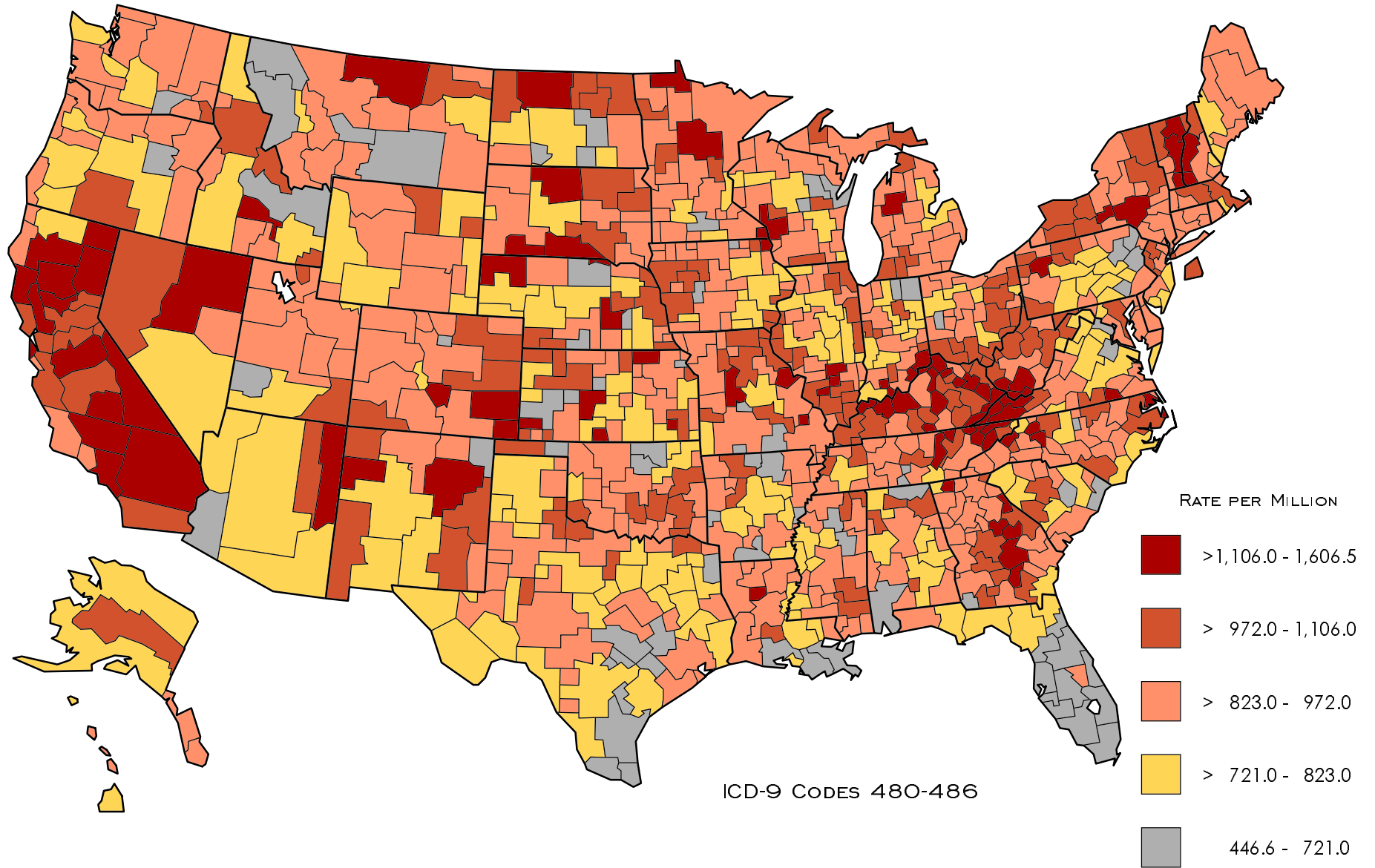
PLEURAL MALIGNANCY
AGE-ADJUSTED DEATH RATES BY HSA
U.S. RESIDENTS 15 YEARS OF AGE AND OLDER, 1982-1993



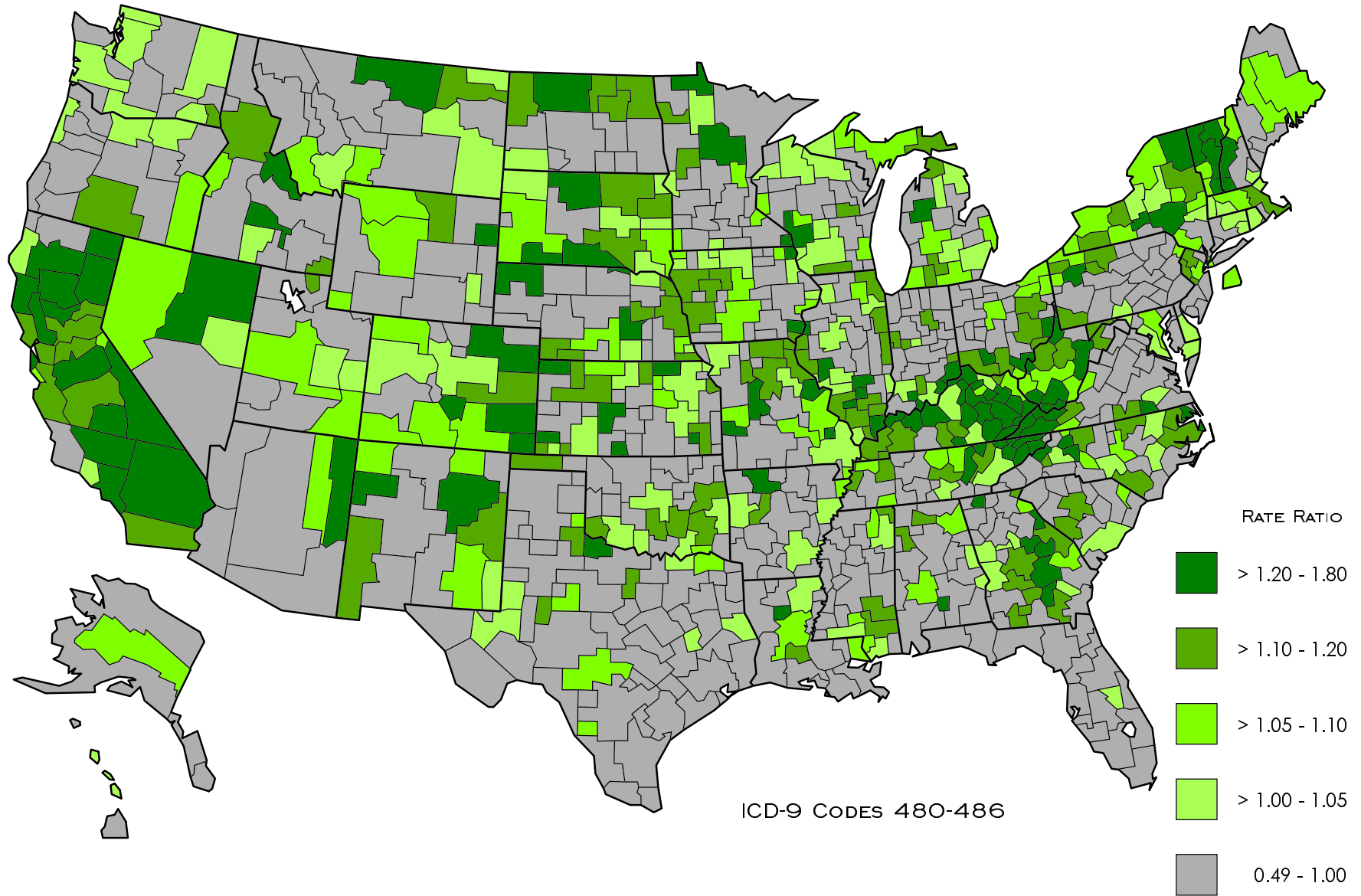
PLEURAL MALIGNANCY
DEATH RATES OF EACH HSA COMPARED WITH U.S.
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PNEUMONIA
AGE-ADJUSTED DEATH RATES BY HSA
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Pneumonia (ICD-9 Codes 480-486)

Infectious pneumonia (ICD-9 codes 480-486) and influenza together represent the sixth leading cause of death in the United States, with a mortality rate of 12.9 per 100,000 [NCHS 1997]. Nearly all deaths in this leading cause of death are attributed to infectious pneumonia, a feared complication of many acute illnesses and the most frequent cause of death due to infectious disease. The most common pathogen causing community-acquired pneumonia is *Streptococcus pneumoniae*, a bacterium for which an effective vaccine is available [Niederman 1987]. Other organisms commonly causing pneumonia include Legionella, mycoplasma, *Chlamydia psittaci*, and viruses [Fein et al. 1987]. Respiratory viruses cause pneumonia either as primary viral infection or as a result of secondary bacterial infection. Chronic obstructive lung disease, a condition that is highly prevalent among the elderly, is associated with a high risk of pneumonia [Koivula et al. 1994]. Risk factors for secondary bacterial pneumonia include advanced age and chronic disorders of the heart and kidneys, as well as of the lungs [Rose et al. 1987].

The problem of occupationally-associated pneumonia is substantial. Clusters of pneumonia caused by recently recognized pathogens have been reported in occupational settings (e.g., Legionnaires' disease in industrial workers and *Chlamydia pneumoniae* infection in military personnel) [Esposito 1992]. Some studies of welders have demonstrated that there is an increased risk of death due to pneumonia [McMillan and Pethybridge 1983]. It has long been recognized that clinically useful clues for diagnosing unusual pneumonias can be obtained from patient histories of occupational contact with animals [Gerberding 1996].

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