ARE SILICOSIS AND SILICA-RELATED ILLNESSES BECOMING DISEASES WITH ETHNIC DISPARITIES?

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BACKGROUND: In the U.S. and other industrial nations, the risk of silicosis mortality has declined. That is a function of improved practices in many dusty industries, including health surveillance, improved capture of silica dusts, use of wet methods, and regulation. However, this decline masks concerns about the burden of silica related diseases impacting minority ethnic groups in the U.S.

CURRENT SILICA DISEASE RISKS: African-American silicosis risks have been described by studies from the Michigan Silicosis Registry. Michigan silicosis risks have been 7 X more common among African-Americans than whites. That has been a function of black workers taking the dustiest jobs, including working as sand blasters after WW II. In the past decade, skilled and unskilled construction workers have tended to be recent immigrants from Latin America. The most serious problem was the finding of acute silicosis cases arising among Mexican men sandblasting near Midland-Odessa TX in the early1990s. Current construction practices can include very dusty cement sawing without using wet methods, and evidence has pointed to cases of silicosis arising from dry cement cutting. Uranium mining was a common occupation among the Navajo Indians and white miners in the southwestern U.S. Navajo workers have elevated risks for both silicosis and other pulmonary diseases, including lung cancer . The lung cancer excesses among Navajo men is more remarkable because they smoke much less than the general population of the U.S.

FUTURE SILICOSIS RISKS: Silicosis mortality risk is declining, but it remains a concern that the residual risk falls on the backs and lungs of minority workers. This means health leaders must educate workers about effective ways to prevent inhalation of silica. Furthermore, we need to expand our definition of silica-related illnesses to include scleroderma, rheumatoid arthritis, kidney disease, TB, as well as lung and other cancers.

CONCLUSION: The OEM communities must continue to pressure for improvements to reduce silica dust exposures. These efforts must include international programs so that developing countries and their workers will see effective prevention policies for silica-related diseases. Health advocates must continue to warn minority workers in the U.S. of the dangers of unprotected silica exposure.