

# Scoring Hospital Respiratory Protection Programs using Written Programs and Interview Data

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**Background:** Following the pandemic influenza outbreak of 2009, NIOSH funded the Respirator use Evaluation in Acute Care Hospital II (REACH II) study. The purpose of this study was to examine how hospitals implement and utilize respiratory protection programs.

**Objectives:** The objectives are: 1) Evaluate overall respiratory protection programs in Illinois and Minnesota hospitals; 2) Score written respiratory protection programs and interview responses relative to the OSHA respiratory protection standard (29 CFR 1910.134); 3) Compare hospital manager scores to unit manager scores to healthcare worker scores; and 4) Compare hospital policies (written program) to their implementation (interview responses).

**Methods:** Each hospital's written respiratory protection program was scored based on 11 elements of OSHA's respiratory protection standard on a scale from 0-2 giving each hospital's written program a total possible score equal to 22. In-person interview questions were sorted into the same 11 OSHA standard elements. For four elements there were no applicable interview questions. For each of the other 7 elements, question responses were deemed correct or incorrect. The score was calculated as a percent of the number of correct answers for each interview question included in that program element.

**Results:** The difference between Minnesota written program scores and Illinois written program scores was not statistically significant ( $p=0.15$ ). None of the hospitals had a written program that included all of the elements required by the OSHA standard. The scores given to the written programs ranged from 3/22 to 17/22 with a median of 9/22. The difference in interview response score by employee type is statistically significant in Minnesota ( $p=.0003$ ) but not statistically significant in Illinois ( $p=.07$ ). In general, hospital managers answered the most questions correctly compared to the OSHA standard and unit managers and healthcare workers answered the fewest questions correctly. This would indicate gaps in communication of policies to people on the floors. There is no correlation between written respiratory protection policies, based on the review of hospital written programs, and the implementation in hospitals, based on interview responses.

**Conclusions:** This study demonstrates the difficulty hospitals have in developing their written respiratory protection programs. Risk assessments and appropriate respirator selection is often difficult for hospitals to perform successfully partially due to constantly changing guidelines and partially to the lack of a designated program administrator. The difference between hospital manager scores and healthcare workers scores indicates the possibility that information is not being properly passed from the person developing the policies to the people required to use respiratory protection.