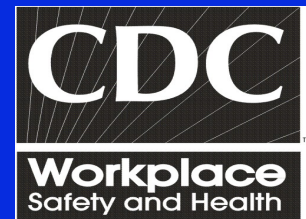


NIOSH Dampness and Mold Assessment Tool

Steve Game¹, Michelle Martin¹, Ju-Hyeong Park¹, Mark Ryan¹, Jerry Roseman², Jean Cox-Ganser¹



¹National Institute for Occupational Safety and Health
²Philadelphia Teachers Health & Welfare Fund



Background

Over the past 12 years, NIOSH has developed and tested the concept of a standardized approach/tool to conduct observational assessments for dampness and mold, through research and research to practice activities in the area of indoor environmental quality. The NIOSH Dampness and Mold Assessment Tool was developed out of that research.

The purpose of this tool is to:

Identify and record areas of dampness or mold throughout your building.

Create awareness of potential problem areas.

Trigger early repair and remediation to avoid potential health effects and more costly repair and remediation.

Track (monitor) past and present problem areas by conducting and monitoring repeat assessments over time.

Application

The NIOSH Dampness and Mold Assessment Tool is currently being beta-tested by the Philadelphia School District, one of the largest school districts in the US, and in collaboration with the Philadelphia Teachers Health & Union. Approximately 100 assessments have been conducted using the tool and software, including damage assessments from Hurricane Sandy. Data is being used to identify problem areas, direct interventions and remediation, and to monitor areas of concern over time.

NIOSH Dampness and Mold Assessment Form

Data collected at room level.

Mold odor and source is captured.

Damage, mold, & dampness is captured for all room components.

Component scores, damage scores and total room scores are computed.

Scoring

Mold Odor is scored by observation when first entering the room being assessed.

Component (yellow-shaded column) scores are based on a cumulative visual assessment of the size(s) for Damage/Stains, Visible Mold, or Wet/Damp of each component present in the room.

- ① None
- ① The size of the form (8 ½ inches X 11 inches) or smaller
- ② Between the size of the form and the size of a standard interior door (32 inches X 80 inches)
- ③ Equal to or larger than the size of an interior door

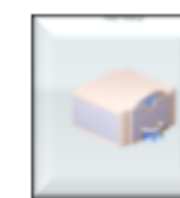
NIOSH research has shown that dampness and mold scores are positively associated with respiratory health effects!

Park et al. 2004, *Indoor Air*; 14:425-433;
Cox-Ganser et al. 2009, *Indoor Air* 19(4):280-290

NIOSH Dampness and Mold Assessment Software

The software is programmed in **Visual Basic.net** with **Microsoft Access** being the primary storage database. It is currently in beta-testing.

There are 7 components of the software:



1) **Site Setup** allows the user to pre-enter school names, school types, wings, floors and room names. All entered data will then appear in drop-down lists for assessors.



2) **Perform New Assessment** (3 screens) allows the user to enter data for a new room assessment. "Notes" areas are provided where comments can be entered for the overall room or for specific room components.



3) **View/Edit Completed Assessments** allow the user to view completed assessments or to make edits to completed assessments.



4) **Export Raw Data to Excel** allows the user to export all data or subsets of the data into a Microsoft Excel spreadsheet.



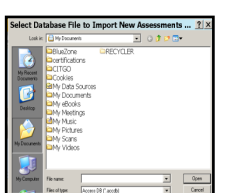
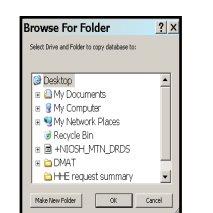
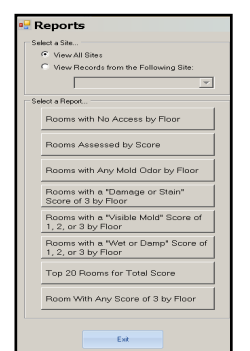
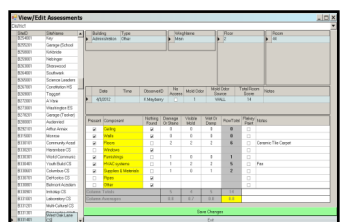
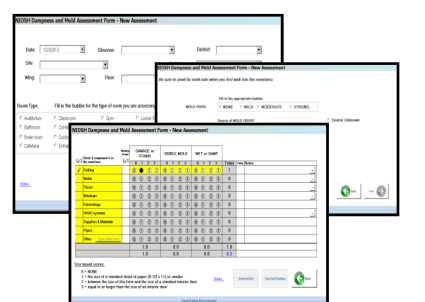
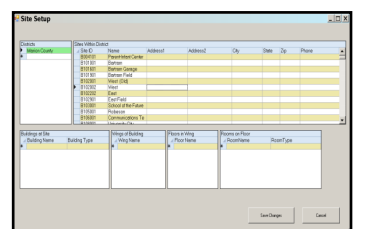
5) **Reports** allow the user to produce quick reports for either all schools or a selected subset of schools.



6) **Backup** allows the user to back up the system database to either external media or to any other location available to the user.



7) **Import Assessments from External Device** allows the user to import data from an external device (tablet, laptop, etc) onto a keyfob and then into the main system database.



Future Plans

Beta-testing
Possible "apps" development
Dissemination via NIOSH website
Adapt form to do different building types
Develop additional modules (health, ventilation, etc.)