

Development and validation of an asbestos identification app

Link to the National Strategic Plan:

Strategy:
Identification

Deliverable:
Pilot residential ACM identification tools and strategies with local government partners

Outcome:
Improved practice in the residential sector to identify and minimise the risk of exposure, in particular for DIY home renovators

Location:
Western Australia, statewide

The issue

There is generally a lack of knowledge and awareness in the community about asbestos identification and its safe management in residential settings. The amount and condition of in situ ACMs remaining in Western Australian housing stock is not known. Therefore, the Western Australia Department of Health aimed to develop and validate a mobile application ('app') that can be used by householders, tradespeople and environmental health officers to screen the home for the presence of in situ asbestos.

Action taken

A mobile app, called 'ACM Check', was developed to identify and assess the condition of in situ ACMs located in residential settings. The app was first built on the iOS platform and tested on a sample of 40 pre-1990 homes located throughout the Perth metropolitan area. The results obtained from ACM Check were compared to onsite inspections conducted at each of the homes by an environmental consultant. The results of the inspection were used to validate the results obtained by ACM Check. Feedback regarding the app was collected from each of the 40 participants through an online questionnaire.

Results

The app identifies potential ACMs through a questionnaire that asks the user simple questions about the age of the house, renovation history and key features of the building materials used. Based on the answers, the app determines if a material is unlikely, possible or likely to contain asbestos. Users rate the current condition and likelihood of disturbing materials that are determined to be possible or likely ACM via the app.

Overall, there was strong agreement between the app and environmental consultant when categorising a house as having in situ asbestos present on the property. The strength of agreement between the app and environmental consultant ranged from low to high when categorising specific materials as unlikely, possible or likely ACM. Based on the feedback, participants were either 'very satisfied' or 'satisfied' with the ease-of-use, look and feel, and time it took to complete the app.

Outcomes

The iOS version of ACM Check app was updated based on participant feedback from the validation study before being replicated on Android. Both versions were released to the Australian public in June 2017 and are now available for free from the App Store and Google Play.

Next steps

Data from completed ACM Check questionnaires is currently being collected from consenting users. The data will be analysed and used by Curtin University researchers to estimate the amount and condition of ACMs in Western Australian housing.

More Information

Further information can be found at <http://healthsciences.curtin.edu.au/schools-and-departments/public-health/research/research-projects/acm-check-asbestos/>

The ACM Check app can be downloaded from the following:

App Store <https://itunes.apple.com/au/app/acm-check/id1124047076?mt=8>

Google Play <https://play.google.com/store/apps/details?id=au.com.rhpi.acmcheck&hl=en>