ASX RELEASE

Large-scale study using VolparaDensity highlights relationship between breast density and screening performance

Wellington, NZ, 30 January 2017: A recent Dutch study into breast density, using ***Volpara®Density™*** software to measure breast density in the women screened, has shown that increased breast density has a direct impact on mammography performance measures, such as sensitivity and the rates of recall, false positives and interval cancers. In other words, the study determined that VolparaDensity was a powerful predictor of screening performance and thus might be used to help get the best out of breast cancer screening programs.

The study, "Volumetric breast density affects performance of digital screening mammography," recently published in *Breast Cancer Research and Treatment* (DOI: 10.1007/s10549-016-4090-7) and involving more than 110,000 mammograms from the Dutch Breast Screening Program (Foundation of Population Screening Mid-West), found a strong linear relationship between decreased screening performance and volumetric breast density.

In a press release due to be released in the US this week, Dr Carla van Gils, who led the study with a team of researchers as part of the EU-funded ASSURE project, said that while there have been several studies that have demonstrated the impact of breast density on the sensitivity of mammography, "this is the first large-scale study to also demonstrate a strong relationship between volumetric density and other screening performance measures like recall rate, false positives or interval cancers."

"With the high reproducibility of the automatic VolparaDensity software, this could help with evaluating risk, and better inform clinical decisions about adjunctive screening options based on women's specific density and other risk factors," she said.

The study included 667 screen-detected and 234 interval cancers. Of all the tumours, 84.3% were invasive cancers. Results from the study demonstrated that a woman was nearly seven times more likely to have an interval cancer if her breasts were extremely dense versus very fatty, and approximately twice as likely to have a false positive if they were extremely dense versus very fatty.

According to Dr van Gils, another interesting finding is the relationship between cancer type (in situ or invasive), breast density and detection mode (screen-detected or interval). When only invasive breast cancer was taken into account, the difference in sensitivity between the density categories was even more pronounced.

"This indicates that the detection of invasive breast cancers in screening is hampered to a larger extent than the detection of in situ breast cancers. A possible explanation for this is that the visibility of microcalcifications is not hampered as much in dense tissue as the visibility of invasive

breast cancers," added Dr van Gils. "Studying this relationship further could be very important as we further develop our understanding of the effectiveness of screening."

Volpara's (ASX:VHT) CEO Ralph Highnam said the inclusion of VolparaDensity in another large-scale study further validates the Company's core technology, and adds to the growing amount of data linking breast density with cancer, and the need for improved screening.

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About Volpara Health Technologies Limited (ASX: VHT)

Founded in 2009 from research originally conducted at Oxford University, VHT is based in Wellington, New Zealand and facilitates the early detection of breast cancer through its digital health solutions to enable personalised, high-quality breast cancer screening based on automated, objective measurements of breast density and quality.

VHT has a number of patents and trademarks and regulatory clearances, including FDA and CE, supporting its technology and services.

VHT, an ASX-listed company that raised $20m through an IPO and subsequent share placement in 2016, has customers and/or research projects in 35 countries.

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