



SkinVision



The **AHSN** Network England

NHS Innovation Accelerator



Implementation Toolkit

SkinVision

Early intervention and diagnosis

SkinVision helps early detection of skin cancer

What is the NHS Innovation Accelerator (NIA)?

- An award-winning national accelerator supporting committed individuals ('Fellows') to scale high-impact, evidence-based innovations across the NHS and wider healthcare system
- An NHS England initiative delivered in partnership with England's 15 Academic Health Science Networks (AHSNs) and hosted at UCLPartners
- Launched in 2015 to support the delivery of the Five Year Forward View, the NIA is highlighted in the NHS Long Term Plan, published in January 2019



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SkinVision.com

What is it?

SkinVision's aim is to empower patients to proactively check their skin for cancer and seek the right care in time.

Developed in the Netherlands, SkinVision is an app that empowers individuals to self-check their skin for early signs of skin cancer. Utilising a CE-marked machine learning algorithm, the app analyses pictures of skin lesions instantly from your smartphone, checking for irregularities in colour, texture and shape of the lesion. The patient can take photos of their skin spots and will receive a risk indication within 30 seconds. The app provides recommendations on the next steps to take, including whether to visit a healthcare professional.

The latest peer reviewed study on the SkinVision algorithm determined a 95.1% sensitivity recognising skin cancer (melanoma, BCC, SCC and pre-malignant stages) with a specificity of 78.3%.¹

SkinVision has real time insight in the activity and results of its users. The company can share these aggregated and anonymized reports on the results, including # active users, # skin checks done, the number of skin cancers identified and the overall risk profile.

More information on SkinVision's scientific evidence is available on their website:

<https://www.skinvision.com/research/>

What's the problem?

- Globally, one in five of us will develop skin cancer in our lifetime. Incidence rates of skin cancer are expected to continue to rise by 7% each year due to the ageing population and increasing exposure to UV light.
- There are 150,000 new skin cancer cases and 3,600 deaths in the UK every year.
- The existing skin cancer pathway is under pressure to cope with these rising rates. GPs indicate that they do not receive sufficient training to recognise skin cancer, making them more inclined to simply refer to a dermatologist when in doubt. ([Pockney, Primrose et al, 2009](#))
- 70% of visits to the GP for suspicious skin spots are unnecessary and diagnostic accuracy is low at 43% sensitivity ([Koelink et al., 2014](#)). This results in a high proportion of unnecessary costly referrals to dermatologists in secondary healthcare.
- The NHS has a shortage of dermatologists, with 1 dermatologist per 124,000 UK citizens, whereas best practice is a ratio of 1 per 62,500 ([Eedy, 2015](#)).
- Melanoma, the most aggressive type of skin cancer, prognosis is highly dependent on the stage of diagnosis; 5-year survival from stage-I is around 100% however falls to 25% in stage IV, meaning early diagnosis is crucial.

- Immunotherapies promise effective treatment for late stage melanomas but adds additional financial pressure to the system with costs of £80,000-100,000 a year per patient.

What's the evidence?

- SkinVision is the only smartphone application for self-assessment of skin lesions which has been evaluated in clinical studies and is a CE-marked medical device. A systematic review found 43 smartphone applications developed for skin cancer detection, monitoring and education. 10 of these use an algorithm to give a risk rating although none have published peer-reviewed evidence on diagnostic accuracy ([Ngoo et al., 2018](#)).
- SkinVision demonstrates a sensitivity of 95.1% in recognising skin cancer (melanoma, BCC, SCC and pre-malignant stages) with a specificity of 78.3%¹.

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Cost impact

- Based on experience and data from other population health programs, combined with an extensive cost effectiveness model, SkinVision expects to generate £800,000 - £1,200,000 savings annually per 100,000 people. Detailed analysis for your specific population is available on request.

Regulatory approvals

- SkinVision has been approved for CE1 Health and Safety protection standards
- SkinVision is the first skin cancer assessment and tracking app to go through the full regulatory process, which includes CE-marking, ISO 13485 (quality management system) and ISO 27001 (information security system) certifications
- ORCHA rates SkinVision as a level 4 app, with a score of 85%

How can I adopt SkinVision?

NHS organisations can purchase bundles of SkinVision year plans at a discounted price.

SkinVision are keen to meet with local teams to discuss pricing in more detail.

You are invited to experience the service yourself. Browse bit.ly/skin-vision, which will direct you to the App Store. After downloading and registration, you're immediately entitled to 30 days of unlimited access.

¹ Udrea et al, sept 2019, JEAVID- <https://www.ncbi.nlm.nih.gov/pubmed/31494983>

For cost-effectiveness information and to set up a meeting please contact:

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SkinVision is listed on the GCloud framework.

Who else is using it?

- SkinVision already has 190,000 users in the UK and has identified over 6,000 skin cancers. The service is highly rated, as reflected by the Net Promotor Score of 40, an [App Store](#) rating of 4.1/5 and [ORCHA](#) has reviewed SkinVision with a score of 85%.
- 1.2 million people globally use SkinVision.
- Partnerships have already been formed with leading insurers CZ, Central Health Insurance (part of the Generali Group) and Accuro, in the Netherlands, Germany and New Zealand respectively

Endorsements

“The app revealed the moles on my arms and legs were absolutely normal but gave the ankle lump a ‘Red Warning’ and advised immediate medical attention. Just weeks later surgeons removed a malignant melanoma – the most aggressive form of skin cancer – and found other pre-cancerous cells elsewhere in my body.” - **Niki Dudderidge, SkinVision user**

“SkinVision is a lifesaver! It enables people all over the world to take their skin seriously. That strengthens me in my work.” - **Vera Heyendael MD Ph.D., Senior Dermatologist, The Netherlands**

“I am extremely lucky to have caught this early, and I genuinely believe that SkinVision saved my life, or at least made the quality of my life greater had I not had this checked out soon, the outcome would have been a lot different.” - **Jason Sheridan, SkinVision User, London, United Kingdom**

Read more user testimonials at www.skinvision.com/stories



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