

Sun protection and vitamin D

Location

Santos, Brazil

Led by

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Benefits

Innovative apps supporting sun protection and vitamin D synthesis

Challenge

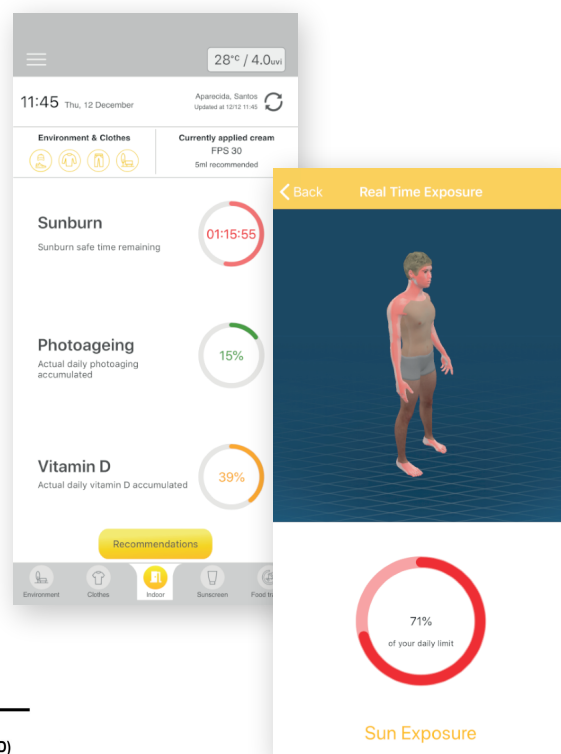
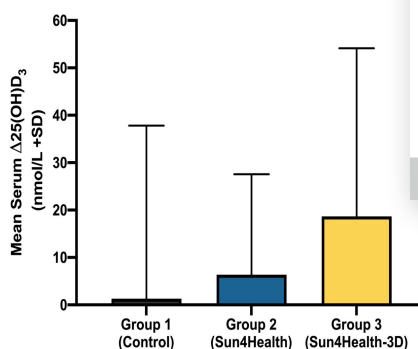
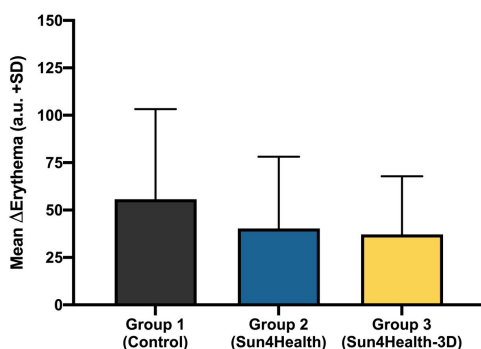
Can we help people manage healthy sun exposure behaviour in everyday life?

The siHealth's Sun4Health® app performs a satellite-based real-time monitoring of both erythema and vitamin D-effective solar radiation dose (patented technology W0/2017/153832), enabling personalised recommendations on sunscreen use and on optimal sun exposure time. If coupled to a wearable device, the app also provides body-site specific recommendations (3D version).

Results & Business impact

Less skin erythema and improved vitamin D levels for Sun4Health® users

A clinical field study with 59 healthy volunteers demonstrated the benefits of using the Sun4Health® apps in real-world conditions¹. The results of the study² show that the Sun4Health® app is safe and can modify behaviour to reduce the level of skin erythema (28% less than control, 33% for 3D version), yet increasing the level of vitamin D synthesis (4 times higher than control, 14 times for 3D version).



Because the sun's rays hit us at different orientations, most people don't know how to protect themselves. They are confused and not prepared for that kind of exposure. The Sun4Health® app makes it easy for the regular user to understand the benefits and the risks of sun exposure, on any particular day.

Prof. Sergio Schalka
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¹ The study was co-funded by siHealth, by BASF and by ESA ("Sun4Health" project 4000120541/17/NL/US), with ethical approval EN19-0771-01

² A. R. Young, S. Schalka et al., "Innovative digital solution supporting sun protection and vitamin D synthesis by using satellite-based monitoring of solar radiation", Photochem Photobiol Sci, 2021 (paper submitted)