DIGITAL HEALTH FOR
CANCER SERVICES

ORCHA

Digital Health for Cancer Services

A reported 40,000 fewer people started cancer treatment in 2020 due to COVID-19.[1] Services were temporarily suspended, fewer people were invited to screening and reduced numbers of people sought primary care advice. As a result, for years to come, cancer services will need to diagnose and treat substantially more people, with many requiring urgent care.

Throughout the pandemic, NHS teams adopted new technologies to ensure as many patients as possible could get the care they need. Digital health offers a wealth of features such as patient-reported outcome collection, remote monitoring and self-management in real time. There is growing evidence of the benefit to integrating digital into routine supportive care in oncology practice to provide improved patient-centered care.[1] So to extend support again now, digital health should continue to be part of the solution.

But which technologies should teams choose to be part of a smart digital foundation in cancer services? Which technologies can help support clinicians in the diagnosis, treatment and support of patients? ORCHA helps NHS services to make informed decisions on digital health, ensuring vital standards are met. To help answer this question, our team has taken a look at digital health for cancer. We ask: how is digital being used now? What's available? Is it safe and effective? What are the best practice examples and what's next?

Adoption of digital health

Early in the pandemic, general practitioners were quick to adopt telemedicine, which rose from around 10% of consultations before COVID-19, to 75% during the peak of the pandemic in the UK,[2] but this can make cancer diagnosis and ongoing support more challenging.

To gain additional benefits from digital, services must go beyond conferencing to digital solutions that unlock greater personalisation, monitoring, and engagement of patients. Digital solutions offer even greater reward when they are integrated into services, rather than bolted on.

ORCHA provides support to NHS services in 70% of regions and to national bodies across the world. This reach gives ORCHA unique insights into exactly how healthcare services are engaging with digital health. Looking back over the past 24 months, starting before COVID-19, searches for health apps have been relatively low for cancer.
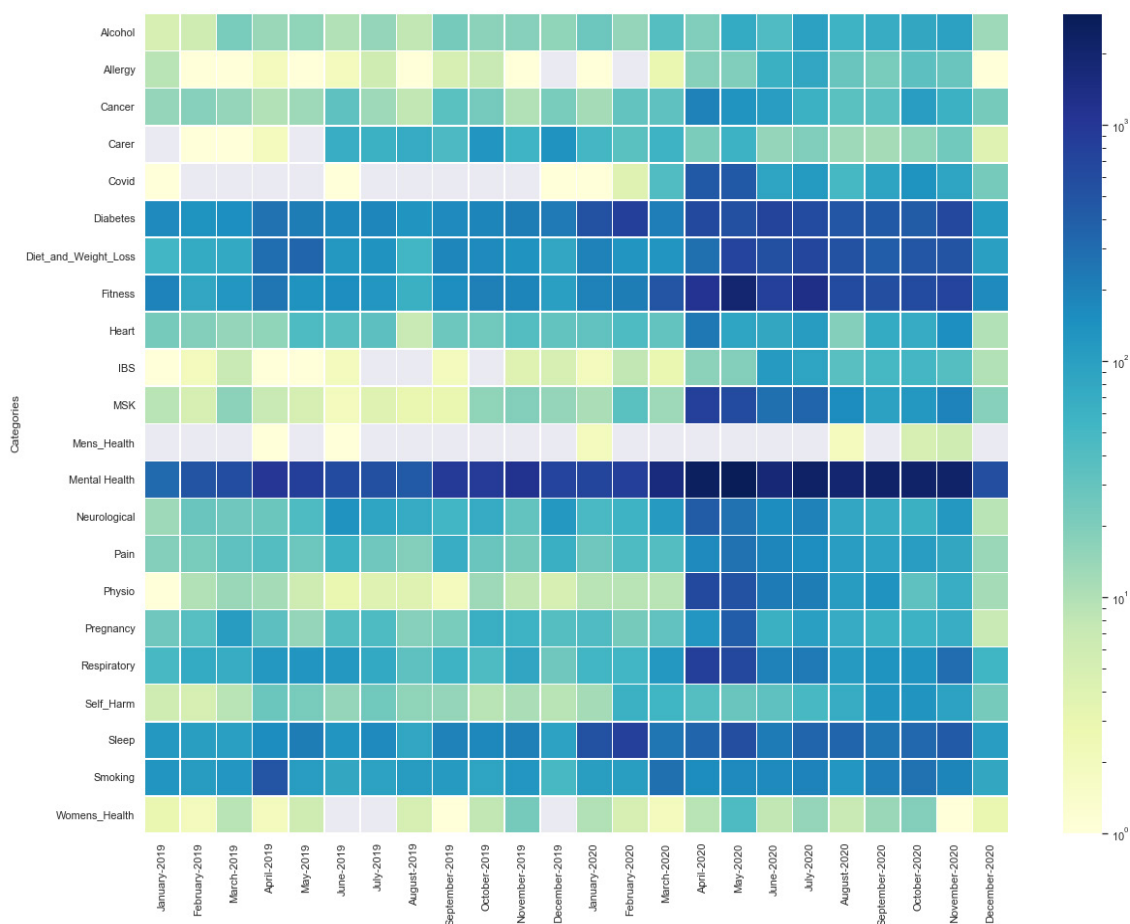

Yet there are many health apps designed by clinicians, with published evidence to support cancer patients. Augmented intelligence can supply clinicians with a wealth of data pertaining to risk factors for cancer, helping to make more informed decisions.[2]

Worrying lack of quality

Today, 3,603 apps to support cancer can be found in app stores. Worryingly, 74% of these have not been updated in the last 18 months. This means the vast majority have not kept pace with medical, data or usability guidelines.

Amongst the apps updated within 18 months, ORCHA reviewed 190 of the most downloaded, testing them against 350+ factors across the many digital health standards and measures.[3] This diligence revealed that only 24.7% of the apps reviewed meet minimum quality thresholds. This is concerning, given how easy it is for vulnerable patients and carers to search app stores.

Global: Total

3603
100%

Global: Viable

929
26%
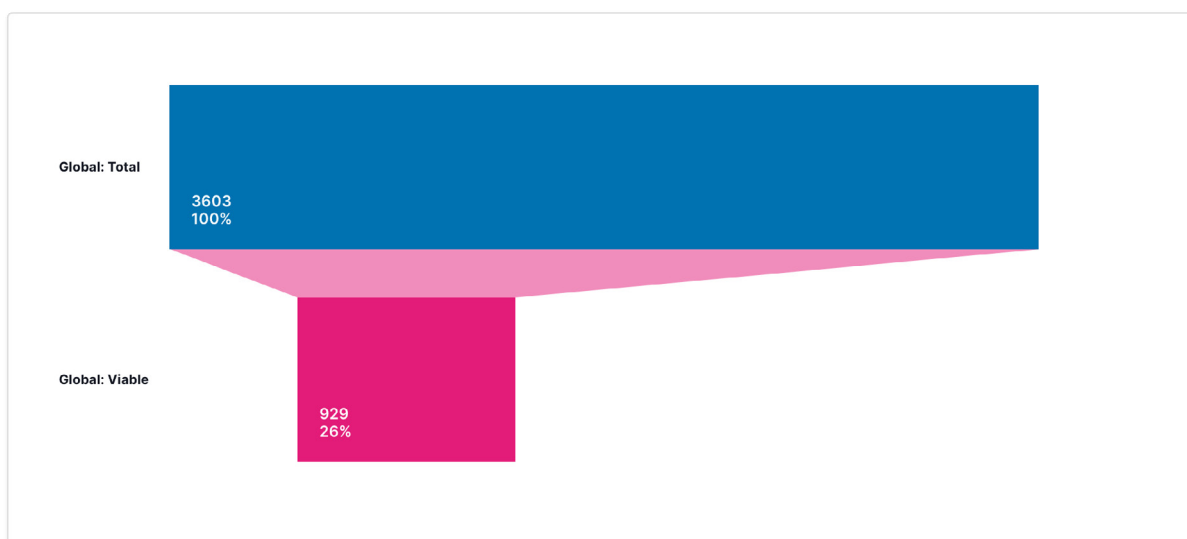
24.7%

of cancer apps reviewed by ORCHA reach the minimum safety score of 65%

However, the app evaluations also enabled the team to identify almost 50 apps that can enhance aspects of cancer care and do meet the levels of effectiveness, security and ease of use laid out by standards bodies. These cancer tools span 18 cancer categories, from skin cancer to prostate cancer.

Best practice examples

Research into the requirements of digital health in the setting of supportive care in oncology has identified that the ideal digital solution would present with the following characteristics: it would be user-friendly, intuitive, and engaging to meet the immediate needs of the end-users; it would also be efficient at processing and delivering relevant information to provide supportive care as its principal aim.[1]

Five examples that reflect these principles and feature in the top 50 list of cancer apps on ORCHA app libraries are:

Vinehealth: Cancer Companion

Developer:
Expert Self Care Ltd

Platforms:
Apple iOS   Google Android

Cost:
Entirely Free

Features:
Cancer, Health Diary

Description:
To support patients across a wide range of cancers.

This app enables patients to track their medication and appointments; monitor symptoms, mood and activity levels; plus access clinically approved articles.
It is part of the DigitalHealth.London Accelerator programme and featured articles are only written by reputable cancer organisations e.g. Macmillan, Cancer Research UK.

ORCHA Score

87%

Level 2

87% of patients reported improvements in depression, fatigue, stress & anxiety whilst using the app.5

OWise - Breast Cancer Support

Developer:

Px HealthCare B.V.

Platforms:

Apple iOS   Google Android

Cost:

Entirely Free

Features:

Cancer, Breast Cancer, Health Diary, Information

Description:

To support patients that have been diagnosed with breast cancer.

It includes a range of features for patients to improve communication with clinical teams.
For example, patients can enter and view all upcoming appointments, record consultations, access a list of personalised suggested questions and look up medical conditions. Patients can also track their wellbeing and 30 side effects and share this with medical teams.
It is also part of the DigitalHealth.London Accelerator programme, it is on the NHS apps library, and patients helped inform its design.

ORCHA Score

84%

Level 2

9 out of 10 medical professionals would recommend the app to their patients.6

BELONG Beating Cancer Together

Developer:

Belongtail ltd.

Platforms:

Apple iOS   Google Android

Cost:

Entirely Free

Features:

Cancer, Social support network

Description:

For people diagnosed with all forms of cancer and their carers.

This app is the world's largest anonymous social network for people with cancer.

Features include forums that enable patients and caregivers to gain support from peers.

Professionals including oncologists, radiologists and doctors answer questions. Machine learning enables the app to notify users of available & relevant clinical trials around the globe.

It is used by the Israeli Ministry of Health, most of the top 20 pharma companies, and patient associations.

ORCHA Score

84%

Level 2

Features direct chat with world-renowned professional experts.7

Miiskin Skin Tracker & eHealth

Developer:
Miiskin

Platforms:
Apple iOS   Google Android

Cost:
In App Purchases

Features:
Skin, Cancer, Moles, Skin Cancer, Health Diary

Description:
For anyone who may be concerned they may have skin cancer.
MiiSkin is an app used for people to track and monitor moles and changes to their skin over time. Artificial Intelligence is used to help map any potential changes in moles. This is not a diagnostic app and information can be shared with healthcare professionals.

It is recommended by board-certified doctors and dermatologists in over 130 clinics and hospitals worldwide.

ORCHA Score

81%

Level 2

A photo diary of skin health fills in the gaps to supplement what the clinician sees and is told in the physical or virtual appointment.8

Untire: Beating cancer fatigue

Developer:
Tired of Cancer

Platforms:
Apple iOS   Google Android

Cost:
Entirely Free

Features:
Cancer, CBT

Description:
For patients and survivors suffering cancer-related fatigue (CRF).
The online program aims to reduce fatigue by mentally and physically engaging users, breaking the vicious circle of fatigue. It's based on Cognitive Behavioural Therapy (CBT), Mindfulness-based Cognitive Therapy (MBCT) with Physical and Psychological Rehabilitation. The step by step programme includes videos, tutorials and daily tips; an online support community; energy and mood trackers; plus you can invite a friend to join you for encouragement.

The programme was developed by psychologists, patients and researchers specialized in psycho-oncology.

ORCHA Score

83%

Level 3

Fatigue severity, fatigue interference, and overall quality of life significantly improved in cancer patients and survivors over 12 weeks.10

What's next?

As teams look to make strides in cancer services, digital can play a significant part. Not replacing a practitioner, but in providing additional personalised information in real time.

During COVID-19, technology has demonstrated its effectiveness for patient support across all clinical conditions. The very nature of digital lends itself to the greater level of personalisation cancer services aim to achieve. Even in cancer diagnosis, where greater challenges lie, technology can play a vital role, arming the clinician with a new set of accurate monitoring information.

As stated by One Cancer Voice and the 47 member cancer charities,[4] NHS staff have been the shining light throughout the pandemic. Their commitment, dedication and innovation at a time of huge pressure has been astounding. This willingness to do things differently and adopt innovative practice is the key to driving more productivity, achieving better cancer outcomes, and getting us on track to reaching our cancer ambitions.

That's why we will see more and more high quality, clinically proven digital health solutions added to ORCHA app libraries, healthcare professional recommendations and the phones of cancer patients across the UK.

But as outlined in this short report, technology quality levels vary dramatically, which must be safeguarded against. Cancer services must, therefore, embrace innovation, but with the same level of diligence and standards as the rest of cancer care.

Sources

1.

https://link.springer.com/article/10.1007/s00520-020-05539-1

2.

https://www.thelancet.com/journals/landig/article/PIIS2589-7500(20)30194-1/fulltext

3.

The apps were assessed against the ORCHA Baseline Review. Further details on this can be found: **https://orchahealth.com/services/reviews-and-accreditations/**

4.

https://www.cancerresearchuk.org/sites/default/files/ocv_statement_feb_2021_final_002.pdf?_gl=1*8t0iac*_gcl_aw*R0NMLjE2MTQ2OTQ2MzIuQ2owS0N-
RaUE0ZmVCQmhDOUFSSXNBQnBfbmJWN1dnVmRKZk5mOFpTQzJ4dWdPTG9neFJXQ0pMMlk1S3ZTQURaN0FSZ0VBdnExM1dTREpyWWFBdVl-
pRUFMd193Y0I.*_gcl_dc*R0NMLjE2MTQ2OTQ2MzIuQ2owS0NRaUE0ZmVCQmhDOUFSSXNBQnBfbmJWN1dnVmRKZk5mOFpTQzJ4dWdPTG9neFJX-
Q0pMMlk1S3ZTQURaN0FSZ0VBdnExM1dTREpyWWFBdVlpRUFMd193Y0I.*_ga*MjExMTIwNTc2MS4xNjE0Njk0NjMy*_ga_58736Z2GNN*MTYxN-
zAyNDE2NS4zLjEuMTYxNzAyNDIzNC41MQ..&_ga=2.34545057.1682687396.1617024166-2111205761.1614694632&_gac=1.196056286.1614694675.
Cj0KCQiA4feBBhC9ARIsABp_nbV7WgVdJfNf8ZSC2xugOLogxRWCJL2Y5KvSADZ7ARgEAvq13WSDJrYaAuYiEALw_wcB

5.

https://www.vinehealth.ai/the-royal-marsden-case-study

6.

https://owise.uk/patients-and-health-care-providers-opinions-on-a-supportive-health-app-during-breast-cancer-treatment-a-qualitative-evaluation/

7.

https://belong.life/beating-cancer-together-app/

8.

https://miiskin.com/providers/whitepaper-the-future-of-skin-monitoring/

9.

https://derma.jmir.org/2019/1/e13376/

10.

https://untire.me/research/

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