

## Immunisation Management System (IMS)

**Immunisation Management System supports almost every aspect of a vaccination service, from identifying and inviting individuals to be vaccinated according to comprehensive prioritisation rules, through to recording vaccinations as they are given.**

The system can also be used as a powerful analytical tool to interrogate and report vaccination data at local, regional and national level in real-time.

IMS is used to manage the English national vaccination programmes for both Covid-19 and influenza, covering vaccinations for 60 million people.

**Delivers the national Covid-19 and influenza vaccination programmes in England, known as NIMS**

**Supports immunisation and child health services for over 6 million children in England**



## Functionality overview:

- An individual-level database of all vaccinations, invitations and adverse reactions
- A web-based app to record vaccinations as they are given and a facility to accept vaccinations from third party systems
- A call/recall service which invites people for first and booster vaccinations by mail, email or text message
- A web-based booking service to allow people to book vaccinations online
- Management dashboards used at national, regional and local levels to provide uptake status, vaccine logistics support and planning/targeting information
- An analytics service integrated with patient records and testing data to provide real-time monitoring of programme effectiveness
- A web viewer allowing authorised users to view a person's vaccination history, and a patient portal to allow a person to look at their own history. (This can be used as a vaccination passport)
- An API service allowing the IMS to be connected to third party booking, vaccination capture and patient access applications
- The solution is Cloud-hosted on Microsoft Azure so no additional local infrastructure is required

## Cohort selection

The system can be used nationally, regionally or locally and users can utilise any combination of demographic and clinical data to prepare lists of citizens to call for vaccination. Selection criteria include age, ethnic origin, postal area, socio-economic data, and other health datasets such as frailty and disease registers.

Once a selection is confirmed, communications are sent and the individuals selected are marked as called.

The system keeps track of vaccination intervals and which specific vaccine is administered, so people are called for further doses at the right time.

## Dashboards and reporting

The system allows complex and customised reports and analyses to be developed rapidly.

National and local dashboards are available, including sophisticated segmentation and mapping. Views and extracts include breakdown by ethnic origin, age, sex and clinical condition.

- Vaccination centre dashboards can be used to track progress at individual centres so that they can manage throughput and plan.
- Local/regional dashboards can be used to monitor and plan vaccination uptake at local or regional level. This supports targeting of vaccination services in specific areas, ranging from groups of GP practices through to regional care systems covering millions of people.
- Health and social care employer dashboards which help service providers and national and local government manage vaccination programmes for their staff.

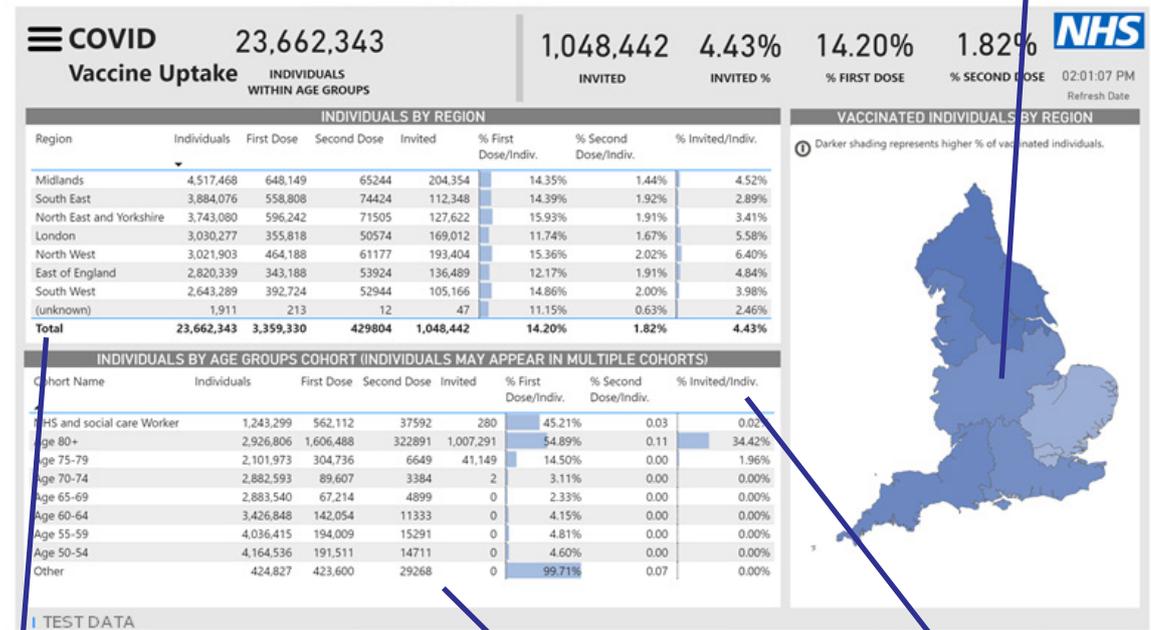
## Call, recall and remind

Invitations and reminders can be sent to citizens as letters, emails or text messages, with reminder timings fully configurable. Invitees can be directed to either national or local booking services so that eligible citizens can self-book vaccination appointments.

Invitations can also be phased so that the number of people referred to vaccination centres can be managed.

## Example: Covid-19 vaccination dashboard

Each country or area can configure its selected geographical breakdown



The dashboards can be configured by area so they can show as large or small an area as required

Patients are usually grouped by age but IMS can manage other groups such as healthcare workers or other key workers

The dashboard shows the number of patients in each group by area, the number with first and second vaccinations and the number of patients invited and booked

## Case study: Delivering the National Immunisation Management System across England

The System C & Graphnet Care Alliance is providing the IT software for the National Immunisation Management System (NIMS) which supports the management of the Covid-19 and influenza vaccination programmes for 60 million people across England. It supports almost every aspect of the national vaccination services, from identifying prioritised patients to be vaccinated, through to recording vaccinations as they are given.

NIMS went live on 1 September 2020, managing the 20/21 influenza immunisation season, and on 1 December 2020 for the management of Covid-19 vaccinations. It processes vaccinations given at 1,500 vaccination sites and feeds the NHS data store which is used to inform vaccination centre operations.

NIMS is the National Immunisation System of Record for England and provides key data for NHS England and Public Health England.