

Lung Health Check Wales: Electronic Health Record toolkit for automated coding of smoking status

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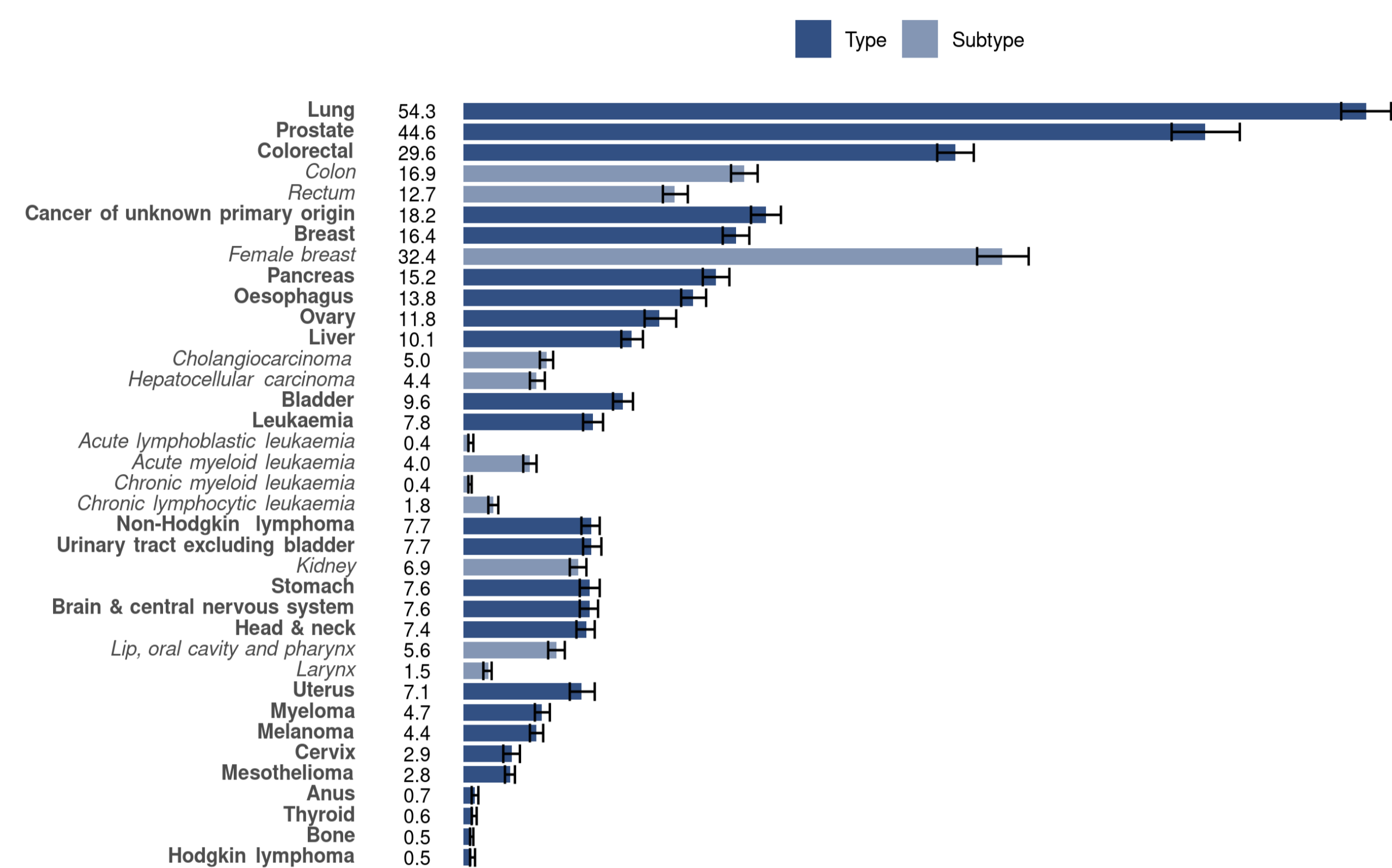
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Introduction

In Wales, lung cancer is the leading cause of cancer related deaths, with late presentation and poorer outcomes in comparison to the rest of the UK.

Cancer mortality, European age-standardised rate per 100,000, persons, all ages, Wales, 2019-2021*
Produced by Public Health Wales Observatory and Cancer Analysis Team, using PHM & MYE (ONS)

— 95% confidence interval



*Data extracted March 2022; data for 2021 is susceptible to lags and 2020 mid-year population estimates were used as a proxy, please interpret with caution.

Lung Health Checks (LHC) are a targeted health intervention for current and ex-smokers that include targeted low dose CT screening for lung cancer in current and ex smokers.

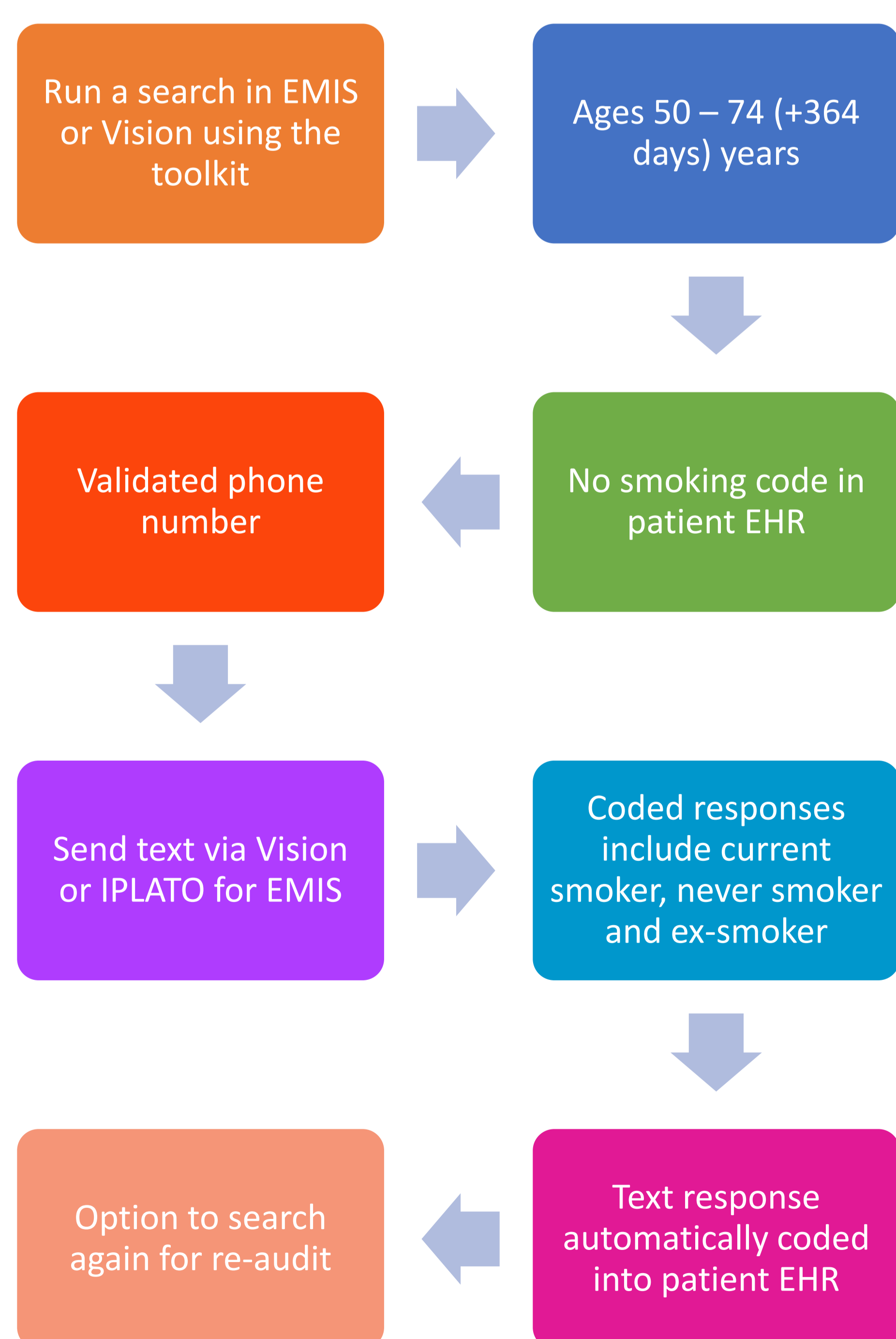
GP Electronic Health Records (EHR) can be used to identify those eligible for the lung health checks based upon their age and smoking history.

Aims

Creation of a toolkit for GP practices to ensure smoking status for their patients aged 50 to 74 (+364 days) years old had been coded in preparation for the LHC roll-out in Wales.

This was done using validated patient mobile numbers from the patient's EHRs and text messaging services.

Methods

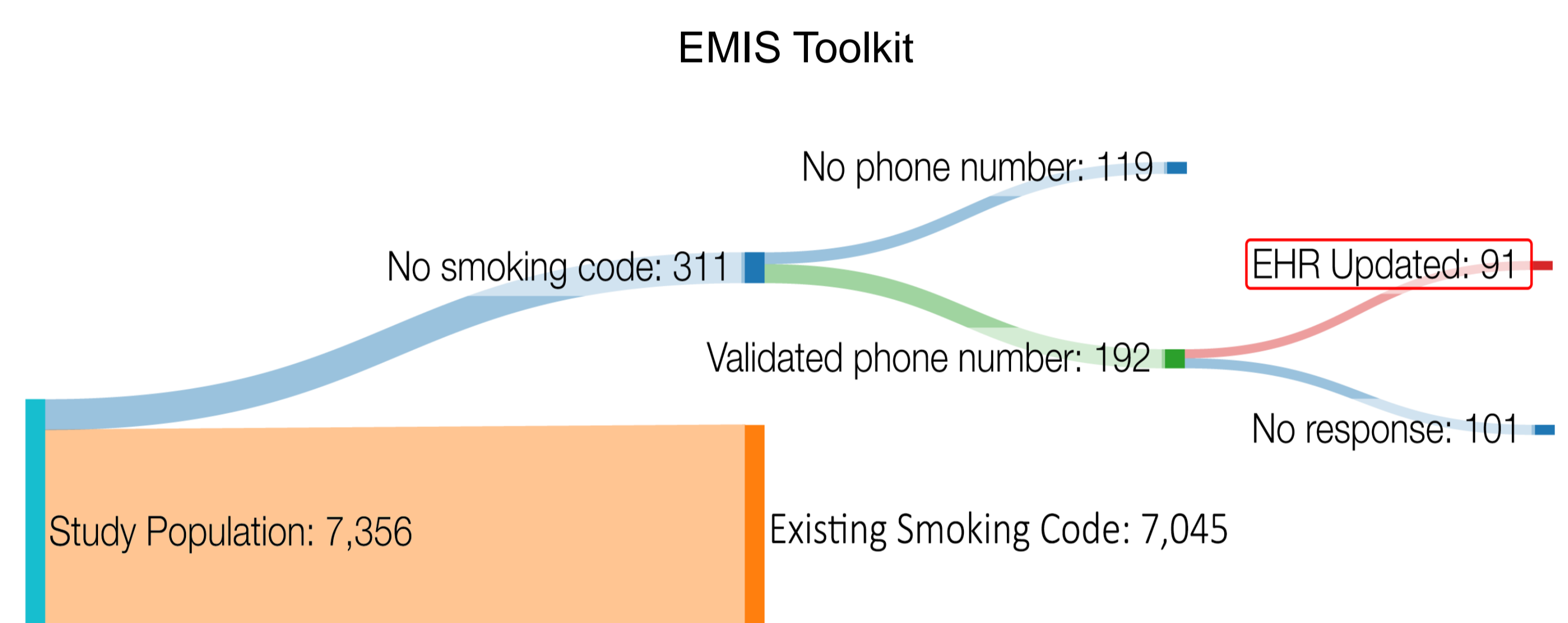
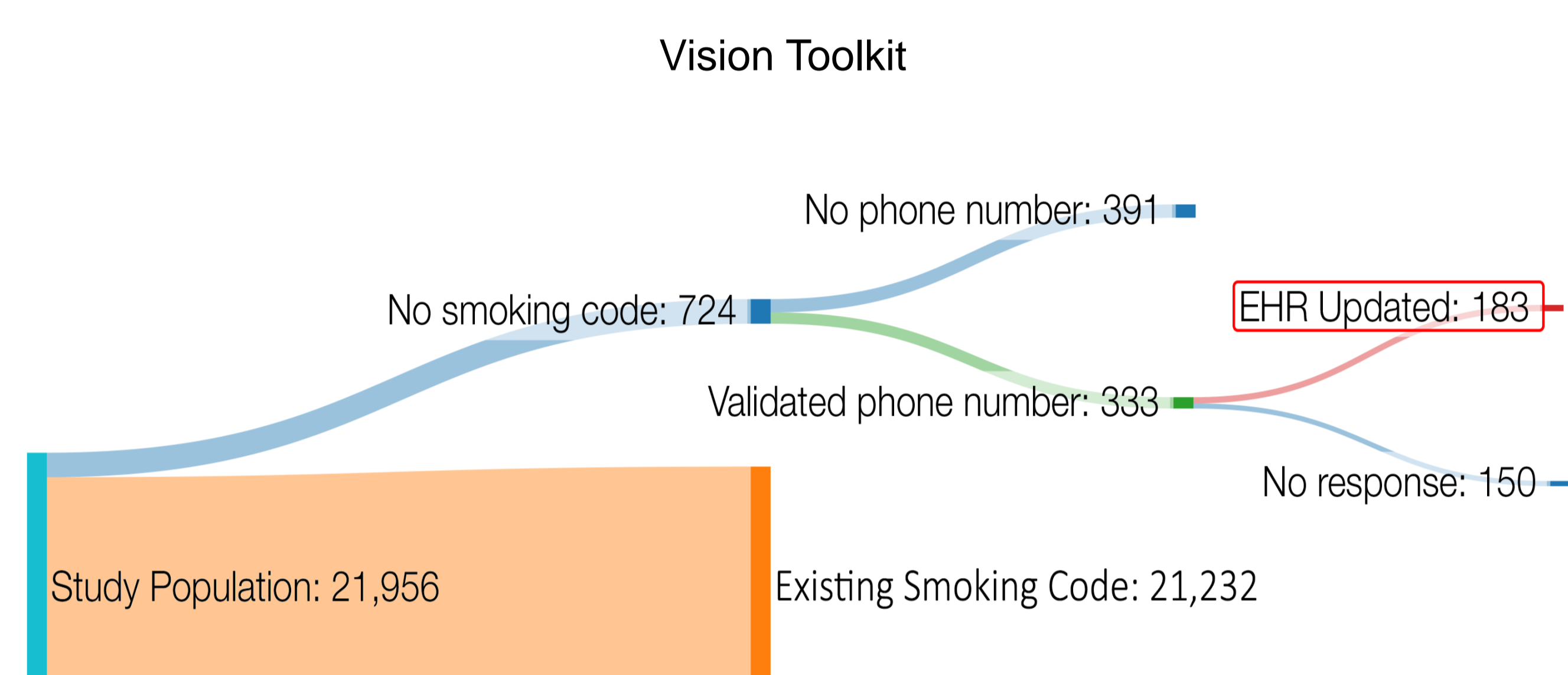


Toolkit

Two toolkits were created for the two electronic GP health records used in Wales; EMIS and Vision. The advantage of using a pre-defined toolkit includes:

- Allows the EHR to be searched electronically based upon predefined search criteria
- All GP practices in Wales have access to tools allowing automated coding of text message responses into the patient EHR
- This is done in one of two ways, using the inbuilt functions of Vision or using IPLATO for EMIS
- Codes are automatically added to the EHR eliminating the need for clinical and/or coding staff manually updating patient records
- The toolkit can be utilised by non-clinical staff
- The toolkit allows re-audit of smoking status

Results



Conclusion

A toolkit incorporating automated searches of the EHR and utilizing inbuilt software for text messaging and automated updating of smoking codes is a feasible and acceptable way of preparing the population of Wales for the launch of Lung Health Check.

By using the prepared toolkits and utilizing software that is already in place and accessible, a streamlined method has been created. In doing so, this ensures a timely process that can be undertaken by non-clinical staff with no prior knowledge of the health records (Vision and EMIS). The toolkit reduced the need for clinical or administrative to code smoking status data.

This makes research opportunities that utilize inbuilt functions or coding into the patient EHR more accessible and streamlined. In turn, this could, in the future, open the door for primary care to be intimately involved in patient centered and community-based research.

Discussion

Further discussion will need to take place with regards to those who do not have a validated mobile phone number or the socio-economic considerations regarding the cost of replying to a text message. This is to ensure that toolkits are not generating skewed or biased data.

Furthermore, concerns have been raised as to the short- and long-term health effects of tobacco alternatives such as vaping. In the context of the toolkit responses from both EHR systems, this leaves ambiguity and variability which could lead to incomplete data capture.

References

Welsh Cancer Intelligence and Surveillance Unit. Lung Cancer in Wales [Internet]. [Cited 2022 Nov 11th]. Available from: <http://www.wcis.wales.nhs.uk/lung-cancer-overview>
Lung Health Check Wales Scoping Report 2020 [Internet]. [Cited 2022 Nov 11th]. Available from: <https://cydweithrediad.gig.cymru/rhwydweithiau/rhwydwaith-canser-cymru/wcn-documents/lung-health-scoping-report/>



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