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Maternity care experiences and outcomes of people seeking sanctuary in Wales: a data linkage study protocol

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Abstract

Introduction
People seeking sanctuary, including refugees and asylum seekers, face barriers and challenges in accessing high quality healthcare. In maternity care specifically, asylum-seeking and refugee women are less likely to access timely and adequate antenatal care and may be more likely to experience adverse perinatal outcomes.

Objectives
We aim to describe maternity care service users seeking sanctuary in Wales and determine whether their perinatal health outcomes and use of maternity care services differ from women born in the UK.

Methods
We will conduct a retrospective cohort study. Linking six datasets held by SAIL Databank, we will identify individuals recorded as refugees or asylum seekers in General Practitioner (GP) records. We will conduct a descriptive analysis of their demographic and health characteristics and conduct a comparative analysis of maternity care service use and perinatal health outcomes between refugees and asylum seekers and UK-born individuals. We will identify statistically significant differences between groups, and where the completeness and quality of the data allow, we will adjust for known covariates.

Results
This study will enable us to report on the characteristics of maternity care service users seeking sanctuary in Wales, their maternity care service use and perinatal health outcomes compared to UK-born women.

Conclusions
This data linkage study will enhance our understanding of health inequities in maternity care and perinatal outcomes related to asylum seeker or refugee status. Results will inform policy and practice to improve provision of maternity care to women seeking sanctuary.

Keywords
data linkage; maternity; refugee; perinatal

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Introduction

There are currently over 365,000 refugees and 175,000 asylum seekers in the United Kingdom (UK) [1], and around 3,000 of the asylum seekers in receipt of public support reside in Wales [2]. Women of childbearing age (18-49) make up 17% of those who applied for asylum in the UK in the year ending June 2023 [3]. While Home Office guidance highlights the importance of protecting the health of pregnant asylum seekers and new mothers [4], there are reports of women being dispersed or relocated within the UK during pregnancy, including late pregnancy. This may cause distress, disrupt the continuity of care, and severely affect their wellbeing [5]. A recent enquiry into the lived experiences of pregnant women seeking sanctuary in the UK showed that they face multiple complex challenges: insufficient financial support, inadequate housing, poor nutrition, and stressful circumstances which negatively impacted their experiences of pregnancy and childbirth [6]. These findings echo UK and international literature which highlights difficulties including language barriers [7–12], limited financial and material resources [9, 12–14], unfamiliar cultural norms and practices [7, 11, 13], social isolation [11–13], fear of displacement or deportation [9, 11, 14], experiences of discrimination [9, 12], poor mental health [7, 11], and lack of knowledge about local healthcare systems and services [8, 11, 12].

Refugee and asylum seeking women are generally less likely to access adequate antenatal care [8, 12, 15, 16] and some evidence suggests poorer perinatal outcomes among this population [16]. These include higher perinatal mortality, miscarriages, stillbirths [15], and perinatal mental health disorders [12, 17] among refugees. However, the evidence also shows some inconsistent trends in regard to some perinatal clinical interventions or outcomes, such as caesarean sections. Indeed, some studies show that refugees and asylum seekers are less likely to undergo perinatal clinical interventions, while others indicate higher rates of interventions among this population, and yet other studies reveal no significant differences between refugee groups and non-refugee populations [12, 17]. Further research is needed to better understand these inconsistent trends in the provision of intrapartum care to refugee and asylum-seeking women.

High-quality, comprehensive datasets are essential for monitoring health inequalities and informing policy and practice [18, 19]. However, there is a lack of high-quality disaggregated data regarding refugee and asylum seekers available for analysis and research [20–23]. In the UK, where this subgroup is rarely identifiable in large-scale datasets [24, 25], there are no large-scale quantitative studies examining refugees and asylum seekers' experiences of maternity care. The linkage of migration and health data from multiple sources constitutes a promising method to enable research into the health status and healthcare service use of migrants, including those seeking sanctuary [26].

Therefore, the aims of this study are to characterise the population of maternity care service users seeking sanctuary in Wales and to determine whether their use of maternity care services and perinatal health outcomes differ from those of UK-born individuals using linked data. Ultimately, this study seeks to enhance our understanding of health inequalities and inform health policy and practice in order to improve care.

Methods

Study design

The Secure Anonymised Information Linkage (SAIL) Databank is a national repository of routinely-collected anonymised individual records for research purposes, meeting the requirements of all applicable data protection regulations [27, 28]. The SAIL Databank acts as data processor for the datasets that originate from various data providers, including the NHS and social care. The NHS Wales Informatics System (NWIS), acting as a Trusted Third Party (TTP), performs the matching and anonymisation of the data, attributing a unique Anonymised Linking Field (ALF) to each individual. The SAIL Databank only stores the clinical or event-based data, along with the ALF and minimal demographic information for each individual [29]. The matching process has been shown to reliably allocate a unique ALF to records in the SAIL Databank, allowing researchers to link anonymised records across several datasets [30].

Working with the SAIL Databank, we will conduct a retrospective cohort study using linked data. We will select individuals identified as refugees or asylum seekers who have given birth in Wales, characterise this group, and compare pregnancy and childbirth outcomes between the study group of refugee or asylum-seeking mothers and the comparator group of UK-born mothers.

Study population and eligibility criteria

The study population will include all births that took place in Wales between 2014 and 2023 to women who did not opt-out of their anonymised data being shared with SAIL Databank.

Births to individuals aged under 18 at the time of the first recorded pregnancy-related event will be excluded from the study. The link between adolescent childbearing and adverse perinatal outcomes is well established in the literature [31, 32], and teenage mothers are subject to specific safeguarding practices within maternity services in Wales [33], potentially resulting in distinct experiences of maternity care as compared to other service users.

We will identify UK-born women through the mother's country of birth recorded in the Annual District Birth Extract (ADBE). Then, using a novel method, we will identify women recorded as refugees or asylum seekers in General Practitioner (GP) data in the Welsh Longitudinal General Practice Dataset (WLGP). As per Welsh Government guidance [34], Health Boards across Wales should use the Read codes 13ZN (asylum seeker) and 13ZB (refugee) to record these individuals in information systems. While it is unknown exactly how well utilised these Read codes are, a preliminary scoping search of the available data shows a sufficient number of individuals identified as asylum seekers or refugees to allow for a robust analysis. We will select all individuals in the WLGP dataset for whom records show at least one event coded 13ZN or 13ZB. Linking this data with additional datasets, we will be able to identify the births to women recorded as refugees or asylum seekers.

Datasets and variables of interest

The six datasets that will be used for this study are briefly presented in Table 1. The Maternity Indicators Dataset (MIDS) includes a unique ALF for both the mother and the baby for each recorded childbirth. We will link the individual records using the mother's ALF for datasets containing data related to her (Annual District Death Extract (ADDE), Welsh Longitudinal General Practice Dataset (WLGP), Welsh Demographic Service Dataset (WDSD)), and using the baby's ALF for datasets containing data related to them (Annual District Birth Extract (ADBE), National Community Child Health Database (NCCHD)), creating a linked dataset which contains all relevant variables for each mother and baby dyad.

Variables of interest relate to a) the mother's demographic and health profile; b) use of maternity care services; and c) pregnancy and childbirth outcomes.

The demographic and health data related to the mother include the following:

- migration status (country of birth, refugee, or asylum seeker status)
- area of residence (urban or rural category, measure of deprivation for area of residence)
- physiological or health status (maternal age, parity, gestation period at the time of delivery, smoking status, weight)

The data regarding the mother's use of maternity care services during pregnancy and childbirth include the following:

- Details of initial assessment (gestation period at initial assessment)
- Type of establishment where childbirth occurred
- Clinical interventions performed during labour and delivery (induction of labour augmentation of labour, epidural, episiotomy, instrumental delivery, caesarean section)

The data regarding the maternal and neonatal outcomes include the following:

- Birth and neonatal outcomes (live or stillbirth, neonatal death)
- Mother's physiological and health outcomes (estimated blood loss, perineal tear)
- Baby's physiological and health status (Apgar score, birth weight)
- Breastfeeding intent

Data management and analysis

Following an exploratory data analysis approach [41], we will examine the origin, quality, and completeness of the data extracted and identify any trends and patterns emerging from the data. We will produce frequency tables and visualisations for each variable to identify any outliers. Invalid values (outside of known possible range, for example: extremely high maternal age) will be examined on a case-by-case basis and corrected or removed.

Identical data items could be inconsistent between datasets (for example: Apgar score at 5 minutes is recorded in two datasets). For variables related to the mother's characteristics, interventions, or health outcomes (maternal age, onset of labour, mode of delivery), we will prioritise the MIDS dataset. For variables related to the child's characteristics, interventions, or health outcomes (Apgar score, weight at birth, stillbirths), we will first prioritise the ADBE and – if not available in ADBE – the NCCHD.

We will describe the study population of maternity care service users identified as refugees and asylum seekers in Wales by country or region of birth, deprivation level of area of residence, age at the time of delivery, and parity. We will provide measures of central tendency and variability for continuous variables and frequencies and relative percentages for categorical variables.

We will summarise via cross-tabulations the use of maternity care services and perinatal outcomes between the study population of individuals identified as refugees and asylum seekers and the comparator group of UK-born women. We will use chi-squared tests to identify statistically significant differences between these groups.

Table 1: Datasets that will be used for this study

Dataset	Brief description
Maternity Indicators Dataset (MIDS)	Includes data regarding the mother and baby at initial assessment and at childbirth for all births in Wales [35]
Annual District Birth Extract (ADBE)	Register of all births relating to Welsh residents, containing data on the childbirth, the baby, and the parents [36]
Annual District Death Extract (ADDE)	Register of deaths relating to Welsh residents, including maternal, perinatal, and neonatal deaths as well as stillbirths [37]
Welsh Longitudinal General Practice Dataset (WLGP)	Contains attendance and clinical data for all general practice interactions, covering 80% of GP practices in Wales and 83% of the population [38].
National Community Child Health Database (NCCHD)	Includes birth registration, child health examinations, and immunisations [39].
Welsh Demographic Service Dataset (WDSD)	Contains administrative information for all individuals using NHS services in Wales [40].

Where the completeness and quality of available data allow, we will conduct logistic regression analyses to control for known potential covariates associated with adverse perinatal outcomes (i.e. age, parity, smoking, maternal weight [42, 43]) and will assess models for goodness-of-fit.

Results

Following this study, we will describe the characteristics of maternity care service users seeking sanctuary in Wales, and their maternity care service use and perinatal health outcomes as compared to UK-born individuals. We will present and discuss the significance of results, highlighting any disparities between groups.

Additionally, we will report on the availability of GP data regarding refugee or asylum seeker status in the WLGP dataset, and the benefits and limitations of using this data to identify refugee and asylum seeker populations in large-scale datasets.

Discussion

Inequities in maternal health and maternity care persist in the UK: recent enquiries report higher rates of maternal mortality among women from Black and Asian ethnic backgrounds as compared to White women [44] as well as severe failings by the institutions and agencies responsible for asylum seeker support [6], including wrongfully charging women seeking sanctuary who are entitled to free NHS care for maternity care services [45] and the disruptive and harmful dispersal of pregnant women across the country [5].

This data linkage study aims to address some of these issues, exploring routine data to describe maternity care service users seeking sanctuary and determine whether there are any significant disparities between individuals identified as refugees and asylum seekers and UK-born individuals in terms of maternity care use and perinatal health outcomes. Utilising a novel method to identify refugees and asylum seekers through GP records, this study will expand the research utility of existing datasets to examine health and care service provision for refugees and asylum seekers, a population that is often invisible in large scale datasets.

This proposed study is aligned with national aims and priorities, including Welsh Government guidance regarding the collection of data and monitoring of healthcare services provided to refugees and asylum seekers [34], the Royal College of Obstetricians and Gynaecologists position statement about the importance of addressing barriers to safe maternity care for refugee, asylum seeking, and undocumented women [46], and Public Health Wales objectives to reduce inequalities [47].

The proposed study presents some limitations. The reliability of using Read codes to identify refugees and asylum seekers in routine health data is uncertain: these Read codes are not used consistently and they may be used incorrectly by healthcare professionals [48]. Additionally, lack of access to primary care may reduce opportunities for healthcare professionals to ask about and record migration status in information systems. Migrants may also withhold information related to their migration status due to language barriers or fear that this information could be shared with immigration authorities [49].

Furthermore, the datasets may be incomplete or contain erroneous values. While the administrative datasets generally have good levels of completeness, they contain data that are manually inputted into information systems, and thus at risk of human error. Additionally, in the MIDS dataset specifically, initial pregnancy assessment data is only included for assessments that take place in the same Health Board as the childbirth, resulting in missing initial assessment data when it took place in a different Health Board or the inclusion of subsequent pregnancy assessment data recorded as the 'first' assessment *in* the Health Board where delivery occurs [50].

While acknowledging these limitations and adopting a cautious approach to the interpretation of future results, it is expected that this data linkage study will provide rich insights into the maternity care use and perinatal health outcomes of women seeking sanctuary in Wales. The study will shed light on the health and wellbeing of a group that face barriers in accessing adequate healthcare and are often invisible in large datasets.

Conclusion

The proposed data linkage study will inform policy and practice regarding the provision of maternity care to women seeking sanctuary in Wales and the reduction of health inequities. Additionally, it will contribute to the body of knowledge regarding the collection and secondary analysis of health data relating to refugees and asylum seekers, highlighting possible avenues for future research.

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Statement on conflicts of interest

None declared

Ethics statement

This study constitutes one component of a doctoral research project which obtained ethical approval from the Swansea University Medical School ethics committee (approval number: 2 2023 7132 6456). Approval was obtained from the SAIL Information Governance Review Panel (IGRP) (Project number: 1581).

Data availability statement

The SAIL Databank (https://saildatabank.com/) will be used to access all data for this planned study. Researchers are

required to complete a two-stage application process, including scoping and information governance review, to access the data.

References

1. UN Refugee Agency. Refugee Data Finder [Web Page]. 2022 https://www.unhcr.org/refugee-statistics/download/?url=Ue72H2.

2. Home Office. Immigration system statistics data tables [Web Page]. 2023 https://www.gov.uk/government/statistical-data-sets/immigration-system-statistics-data-tables#asylum-and-resettlement.

3. Home Office. How many people do we grant protection to? [Web Page]. 2024 https://www.gov.uk/government/statistics/immigration-system-statistics-year-ending-march-2023/how-many-people-do-we-grant-protection-to.

4. UK Visas and Immigration. Healthcare Needs and Pregnancy Dispersal Policy v3.0. London: UK Visas and Immigration; 2016. 50 p.

5. Feldman R. When maternity doesn't matter: Dispersing pregnant women seeking asylum. London: Maternity Action; 2013. 81 p.

6. Arrowsmith L, Bragg R, Hickey G. Maternal Health: exploring the lived experiences of pregnant women seeking asylum. London: Maternity Action; 2022. 28 p.

7. Kingsbury DM, Chatfield SL. A qualitative metasynthesis of published research exploring the pregnancy and resettlement experience among refugee women. The qualitative report. 2019;24(2):242–57. https://doi.org/10.46743/2160-3715/2019.3750

8. Haith-Cooper M, McCarthy R. Striving for excellence in maternity care: The Maternity Stream of the City of Sanctuary. British Journal of Midwifery. 2015;23(9):648–52. https://doi.org/10.12968/bjom.2015.23.9.648

9. Evans M, Plows J, McCarthy R, McConville B, Haith-Cooper M. What refugee women want from maternity care: a qualitative study. British Journal of Midwifery. 2022;30(9):502–11.

10. Lebano A, Hamed S, Bradby H, Gil-Salmerón A, Durá-Ferrandis E, Garcés-Ferrer J, et al. Migrants' and refugees' health status and healthcare in Europe: a scoping literature review. BMC Public Health. 2020;20(1):1-22. https://doi.org/10.1186/s12889-020-08749-8

11. Pangas J, Ogunsiji O, Elmir R, Raman S, Liamputtong P, Burns E, et al. Refugee women's experiences negotiating motherhood and maternity care in a new country: a meta-ethnographic review. International Journal of Nursing Studies. 2019;90:31–45. https://doi.org/10.1016/j.ijnurstu.2018.10.005

12. Ramadan M, Rukh-E-Qamar H, Yang S, Vang ZM. Fifty years of evidence on perinatal experience among refugee and asylum-seeking women in Organization for Economic Co-operation and Development (OECD) countries: A scoping review. PloS one. 2023;18(10):e0287617. https://doi.org/10.1371/journal.pone.0287617

13. Haynes A. Threatened identities: The mothering experiences of asylum-seeking and refugee women in England [PhD Thesis]. Norwich: University of East Anglia; 2013.

14. Balaam M-C, Kingdon C, Thomson G, Finlayson K, Downe S. 'We make them feel special': the experiences of voluntary sector workers supporting asylum seeking and refugee women during pregnancy and early motherhood. Midwifery. 2016;34:133–40. https://doi.org/10.1016/j.midw.2015.12.003

15. Sturrock S, Williams E, Greenough A. Antenatal and perinatal outcomes of refugees in high income countries. Journal of Perinatal Medicine. 2021;49(1):80–93. https://doi.org/doi.org/10.1515/jpm-2020-0389

16. Bradby H, Humphris R, Newall D, Phillimore J. Public health aspects of migrant health: a review of the evidence on health status for refugees and asylum seekers in the European Region. Copenhagen: World Health Organization; 2015. 33 p.

17. Heslehurst N, Brown H, Pemu A, Coleman H, Rankin J. Perinatal health outcomes and care among asylum seekers and refugees: a systematic review of systematic reviews. BMC Medicine. 2018;16(1):1–25. https://doi.org/10.1186/s12916-018-1064-0

18. Hosseinpoor AR, Bergen N, Schlotheuber A, Boerma T. National health inequality monitoring: current challenges and opportunities. Global Health Action. 2018;11(sup1):70–4. https://doi.org/10.1080/16549716.2017.1392216

19. Moorthie S, Peacey V, Evans S, Phillips V, Roman-Urrestarazu A, Brayne C, et al. A scoping review of approaches to improving quality of data relating to health inequalities. International journal of environmental research and public health. 2022;19(23):15874. https://doi.org/10.3390/ijerph192315874

20. Franklinos L, Parrish R, Burns R, Caflisch A, Mallick B, Rahman T, et al. Key opportunities and challenges for the use of big data in migration research and policy. UCL Open Environment. 2022;3(06).

21. Angenendt S, Kipp D, Koch A. Many refugees, poor data: development cooperation requires higher-quality data. Berlin: Stiftung Wissenschaft und Politik -SWP- Deutsches Institut für Internationale Politik und Sicherheit; 2016. 4.

22. Mosler Vidal E. Leave no migrant behind. The 2030 agenda and data disaggregation. Geneva: International Organization for Migration; 2021. 100 p.

23. Sağnıç ŞG. Lost in data translation: A critical review of datasets on refugees. International Migration. 2023;61:193–208. https://doi.org/10.1111/imig.13159

24. Aspinall P. Hidden needs: Identifying key vulnerable groups in data collections: vulnerable migrants, gypsies and travellers, homeless people, and sex workers. Inclusion Health; 2014. 88 p.

25. Aspinall P. The extent of collection of information on migrant and asylum seeker status in routine health and social care data sources in England. International Journal of Migration, Health and Social Care. 2007;3(4):3–13.

26. Burns R, Wyke S, Boukari Y, Katikireddi SV, Zenner D, Campos-Matos I, et al. Linking migration and hospital data in England: linkage process and evaluation of bias. International journal of population data science. 2024;9(1). https://doi.org/10.23889/ijpds.v9i1.2181

27. Ford DV, Jones KH, Verplancke J-P, Lyons RA, John G, Brown G, et al. The SAIL Databank: building a national architecture for e-health research and evaluation. BMC health services research. 2009;9(157):1–12. https://doi.org/10.1186/1472-6963-9-157

28. Jones KH, Ford DV, Thompson S, Lyons R. A profile of the SAIL databank on the UK secure research platform. International journal of population data science. 2019;4(2). https://doi.org/10.23889/ijpds.v4i2.1134

29. Jones KH, Ford DV, Jones C, Dsilva R, Thompson S, Brooks CJ, et al. A case study of the Secure Anonymous Information Linkage (SAIL) Gateway: a privacy-protecting remote access system for health-related research and evaluation. Journal of biomedical informatics. 2014;50:196–204. https://doi.org/10.1016/j.jbi.2014.01.003

30. Lyons RA, Jones KH, John G, Brooks CJ, Verplancke J-P, Ford DV, et al. The SAIL databank: linking multiple health and social care datasets. BMC medical informatics and decision making. 2009;9:1–8. https://doi.org/10.1186/1472-6947-9-3

31. Maheshwari MV, Khalid N, Patel PD, Alghareeb R, Hussain A. Maternal and neonatal outcomes of adolescent pregnancy: a narrative review. Cureus. 2022;14(6). https://doi.org/10.7759/cureus.25921

32. Amjad S, MacDonald I, Chambers T, Osornio-Vargas A, Chandra S, Voaklander D, et al. Social determinants of health and adverse maternal and birth outcomes in adolescent pregnancies: a systematic review and meta-analysis. Paediatric and perinatal epidemiology. 2019;33(1):88–99. https://doi.org/10.1111/ppe.12529

33. Fairman A. Safeguarding under 18's within maternity services (version number 3). NHS Wales Cardiff and Vale University Health Board; 2020. 11 p.

34. Welsh Government. Health and wellbeing provision for refugees and asylum seekers. Welsh Government; 2018. Report No.: WG33901. 40 p.

35. Health Data Research Innovation Gateway. Maternity Indicators Dataset [Web Page]. N.D. https://web.www.healthdatagateway.org/dataset/a0c27454-8cbe-418f-bdae-a85d5e92e9d4.

36. Health Data Research Innovation Gateway. Annual District Birth Extract (ADBE) [Web Page]. N.D. https://web.www.healthdatagateway.org/dataset/d42aa93a-ecc3-480b-a55b-d089dbc11413.

37. Health Data Research Innovation Gateway. Annual District Death Extract (ADDE) [Web Page]. N.D. https://web.www.healthdatagateway.org/dataset/15cf4241-abad-4dcc-95b0-8cd7c02be999.

38. Health Data Research Innovation Gateway. Welsh Longitudinal General Practice Dataset (WLGP) – Welsh Primary Care [Web Page]. N.D. https://web.www.healthdatagateway.org/dataset/33fc3ffd-aa4c-4a16-a32f-0c900aaea3d2.

39. Health Data Research Innovation Gateway. National Community Child Health Database (NCCHD) [Web Page]. N.D. https://web.www.healthdatagateway.org/dataset/20fe153c-a5e5-4991-900e-8fa9988e771a.

40. Health Data Research Innovation Gateway. Welsh Demographic Service Dataset (WDSD) [Web Page]. N.D. https://web.www.healthdatagateway.org/dataset/cea328df-abe5-48fb-8bcb-c0a5b6377446.

41. Jones JS, Goldring J. Exploratory and descriptive statistics. London: Sage Publications Limited; 2022.

42. Flenady V, Koopmans L, Middleton P, Frøen JF, Smith GC, Gibbons K, et al. Major risk factors for stillbirth in high-income countries: a systematic review and meta-analysis. The lancet. 2011;377(9774):1331–40. https://doi.org/10.1016/S01406736(10)62233-7

43. Korst LM, Gregory KD, Nicholas LA, Saeb S, Reynen DJ, Troyan JL, et al. A scoping review of severe maternal morbidity: describing risk factors and methodological approaches to inform population-based surveillance. Maternal Health, Neonatology and Perinatology. 2021;7(1):1–20. https://doi.org/10.1186/s40748-020-00123-1

44. Knight M, Bunch K, Patel R, Shakespeare J, Kotnis R, Kenyon S, et al. Saving Lives, Improving Mothers' Care. Oxford: National Perinatal Epidemiology Unit (University of Oxford); 2022. 89 p.

45. Pellegrino C, Benson C, Bragg R. Breach of Trust: A review of implementation of the NHS charging programme in maternity services in England. London: Maternity Action; 2021. 31 p.

46. Royal College of Obstetricians and Gynaecologists. RCOG Position Statement: Equitable access to maternity care for refugee, asylum seeking and undocumented migrant women [Web Page]. 2022

https://www.rcog.org.uk/about-us/campaigning-and-opinions/position-statements/position-statement-equitable-access-to-maternity-care-for-refugee-asylum-seeking-and-undocumented-migrant-women/.

47. Public Health Wales. Working to achieve a healthier future for Wales: Our Strategic Equality Plan and Objectives 2020 – 2024. Public Health Wales; 2020. 15 p.

48. Tomkow L. Health and ageing in a hostile environment: Understanding older asylum applicants' narratives of life, health and ageing in the UK [PhD Thesis]. Manchester: University of Manchester; 2019.

49. Pathak N, Zhang CX, Boukari Y, Burns R, Mathur R, Gonzalez-Izquierdo A, et al. Development and Validation of a Primary Care Electronic Health Record Phenotype to Study Migration and Health in the UK. International journal of environmental research and public health. 2021;18(24):13304. https://doi.org/10.3390/ijerph182413304

50. Welsh Government. Maternity and birth statistics: quality report. Welsh Government; 2023. 27 p.

Abbreviations

ADBE:	Annual District Birth Extract
ADDE:	Annual District Death Extract
ALF:	Anonymised Linking Field
GP:	General Practitioner
MIDS:	Maternity Indicators Dataset
NCCHD:	National Community Child Health Database
NWIS:	NHS Wales Informatics System
SAIL:	Secure Anonymised Information Linkage
UK:	United Kingdom
WDSD:	Welsh Demographic Service Dataset
WLGP:	Welsh Longitudinal General Practice Dataset