Linked Data Summary

Linked Dataset	Coding	Date Range	N Participants	N Records	Description
Scottish Morbidity Records (SMR)					
Outpatient Attendance (SMR00)	None	1996-2023	21,415	546,239	Episode level data from patients on new and follow up appointments at outpatient clinics in all specialities (except A&E and genitourinary medicine).
General/Acute Inpatient and Day Case (SMR01)	ICD	1980-2023	19,785	157,739	Acute inpatient and daycase hospital admissions: disease and procedure codes. Scotland-wide, around 750 000 admissions per annum since 1981.
Maternity Inpatient and Day Case (SMR02)	ICD	1975-2023	8,419	27,730	Pregnancies and births: disease and procedure codes. Scotland-wide, around 58,000 deliveries per annum since 1975.
Mental Health Inpatient and Day Case (SMR04)	ICD	1980-2023	613	1,778	Psychiatric hospital discharges and diagnostic information.
Scottish Cancer Registry (SMR06)	ICD	1996-2023	4,336	5,528	Personal, demographic, and diagnostic information on all new cases of cancer.
Scottish Birth Record (SBR/SMR11)	ICD	1975-1992	3,243	3,296	Linked maternity, neonatal and stillbirth and infant death records from 1975, with records pertaining to mother and baby held together
Primary Care					
General Practice (GP) Full dataset	ReadV2	1980-2020	20,663	588,326	GP primary care attendances. Full dataset is available for COVID-19 related studies.
General Practice (GP) Consented	ReadV2	1980-2020	7,214	227,370	GP primary care attendances. GP practices that have provided consent to share their data.
GP Out-of-Hours Data	ReadV2	2014-2022	8,530	29,203	Data on patients seen by GP Out of Hours (OOH) services across Scotland since 2014.
Other Datasets					
Prescribing Information System (PIS)	BNF	1989-2023	21,609	5,969,752	The Prescribing Information System (PIS) covers all NHS prescriptions prescribed, dispensed and reimbursed within the community setting. Pre-2009 data is poorly completed.
Scottish Medical Imaging (SMI)	None	2010-2017	9,575	12,509,328	Population-based, medical radiology images: Computerised Tomography (CT), Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET), Structured Reports (SRs).
Routine laboratory testing	ReadV2	1997-2019	18,596	3,863,482	Laboratory test results from primary and secondary care provided by the Scottish Care Information (SCI) Store.
Accident and Emergency (A&E)	ICD	2007-2023	15,248	62,435	Patient attendance information at Emergency Department (EDs), Minor Injuries Units (MIUs) and community hospital A&Es across NHS Scotland.
NHS24	None	2011-2022	12,321	40,909	Records of telehealth and telecare services provided through nhs24.scot website and NHS 24 111 phone service.
Scottish Drug Misuse Dataset (SDMD)	None	2001-2021	76	161	Collects information about people in Scotland seeking specialist treatment for drug use.
National Records of Scotland (NRS) Deaths Data	ICD	2007-2023	1,937	1,937	All deaths occurring in Scotland.
Dental data - Management information and dental accounting system (MIDAS)	None	1995-2019	18,399	1,135,905	The MIDAS is the computerised payment system for general dental system dentists.
Scottish Care Information – Diabetes Collaboration (SCI-DC)	None	2019	1,424	1,525	SCI-Diabetes is NHS Scotland's diabetes patient management system. It is used in every health board and holds data on all people with diabetes living in Scotland.
COVID-19					
Electronic Communication of Surveillance Scotland (ECOSS)	None	2020-2022	16,530	266,889	PHS Surveillance system that receives laboratory test results (including patient identifiable information) from all Scottish NHS labs. COVID-19 tests.
COVID-19 Vaccinations	None	2020-2022	19,121	62,380	The PHS vaccinations dataset began in December 2020 collecting COVID-19 vaccinations data.
Intensive Care Unit (ICU)	None	2019-2022	361	511	The Scottish Intensive Care Society Audit Group (SICSAG) maintains a national database of patients admitted to adult critical care units in Scotland.

Linked Data Dictionary

Scottish Morbidity Records

Outpatient Appointments and Attendances - Scottish Morbidity Record (SMR00)

The outpatients (SMR00) dataset collects episode level data from patients on new and follow up appointments at outpatient clinics in all specialities (except A&E and genitourinary medicine).
https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/outpatient-appointments-and-attendances-scottish-morbidity-record-smr00/

Variable Name	Description
clinic_date	Date of event
specialty	Speciality (lookup at end of doc)
referral_source	Referral source 1= GP 2= Consultant at this Health Board/ Health Care Provider 4= Consultant from a Health Board/ Health Care Provider outwith this Health Board area 5= Self-referral 6= Prison/Penal Establishments 7= Judicial 8= Local Authority/Voluntary Agency 9= Other (includes Armed Forces) A=Accident and Emergency Department B= Optometrist/Optician C= Allied Health Professional (AHP) D= Dental Practitioner E= Community Health Service (excluding Optometrist/Optician and Allied Health Professional (AHP)) N= NHS24 R= Patient Initiated Return
referral_type	Referral code 1= New Outpatient: Consultation and Management 2= New Outpatient: Consultation only 3= Follow-up/Return Outpatient
main_condition	Main condition ICD
other_condition_1	Other condition ICD
other_condition_2	Other condition ICD
other_condition_3	Other condition ICD
other_condition_4	Other condition ICD
other_condition_5	Other condition ICD

main_operation	Main operation ICD
other_operation_1	Other operation ICD
other_operation_2	Other operation ICD
other_operation_3	Other operation ICD
date_of_main_operation	Date of main operation
date_of_other_operation_1	Date of other operation 1
date_of_other_operation_2	Date of other operation 2
date_of_other_operation_3	Date of other operation 3

General Acute Inpatient and Day Case - Scottish Morbidity Record (SMR01)

The General/Acute and Inpatient Day Case dataset (SMR01) collects episode level data on hospital inpatient and day case discharges from acute specialities from hospitals in Scotland. https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/general-acute-inpatient-and-day-case-scottish-morbidity-record-smr01/

Variable Name	Description
admission_date	Admission date
discharge_date	Discharge date
specialty	Speciality (lookup at end of doc)
main_condition	Main medical (or social) condition managed/investigated during the patients stay ICD code
other_condition_1	ICD code
other_condition_2	ICD code
other_condition_3	ICD code
other_condition_4	ICD code
other_condition_5	ICD code
main_operation	Main Operation are those aspects of clinical care carried out on patients undergoing treatment. OPCS-4 is used to classify interventions and surgical procedures
other_operation_1	OPCS-4 surgical procedure code
other_operation_2	OPCS-4 surgical procedure code
other_operation_3	OPCS-4 surgical procedure code
date_of_main_operation	Date of operation
date_of_other_operation_1	Date of other operation
date_of_other_operation_2	Date of other operation
date_of_other_operation_3	Date of other operation
inpatient_daycase_identifier	Inpatient / Day case flag
postcode	Patient postcode

sex	Patient sex
dob	Patient date of birth

Maternity Inpatient and Day Case - Scottish Morbidity Record (SMR02)

The Maternity Inpatient and Day Case dataset (SMR02) collects episode level data every time a mother goes in for an obstetric event (this can be an antenatal, delivery or postnatal episode).

https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/maternity-inpatient-and-day-case-scottish-morbidity-record-smr02/

Variable Name	Description
admission_date	Admission date
discharge_date	Discharge date
date_of_delivery	Date of delivery
drug_misuse	Drug misuse at any time during the current pregnancy. 0= No 1= Yes 9= Not Known
drugs_used_1	List any illicit drugs, or drugs prescribed for the treatment of drug misuse/dependence, used in this pregnancy. 0 = None 10 = Heroin 11 = Morphine 12 = Methadone - prescribed only 13 = Methadone - other 14 = Dihydrocodeine - prescribed only 15 = Dihydrocodeine - other 16 = Dipipanone 17 = Buprenorphine 19 = Other opiates 20 = Diazepam - prescribed only 21 = Diazepam - other 22 = Temazepam - prescribed only 23 = Temazepam - other 24 = Nitrazepam 25 = Other benzodiazepines 29 = Other sedatives 30 = Amphetamines 31 = Cocaine 32 = Crack cocaine 33 = Ecstasy 39 = Other stimulants

	40 = Hallucinogens 50 = Cannabis 60 = Solvents and gases 70 = Other drugs 99 = Not Known
drugs_used_2	List any illicit drugs, or drugs prescribed for the treatment of drug misuse/dependence, used in this pregnancy.
drugs_used_3	List any illicit drugs, or drugs prescribed for the treatment of drug misuse/dependence, used in this pregnancy.
drugs_used_4	List any illicit drugs, or drugs prescribed for the treatment of drug misuse/dependence, used in this pregnancy.
weekly_alcohol_consumption	Number of units of alcohol consumed in the course of a typical week, in the three months prior to antenatal booking.
certainty_of_gestation_scan	A measure of accuracy of gestation (based on LMP scan) 0= Not Applicable 1= Certain 2= Uncertain 9= Not Known
estimated_gestation	Number of completed weeks of pregnancy, as judged by the clinician (doctor or midwife), usually on the basis of an ultrasound measurement.
diabetes	Mother's status of diabetes 1= Yes, Pre-existing diabetes (diagnosed before pregnancy) 2= Yes, Gestational diabetes (diagnosed during this pregnancy) 3= Yes, Time of diagnosis unknown 4= No (no diabetes during this pregnancy) 9= Unknown
height	height of the mother measured in centimetres.
smoker_during_pregnancy	History of tobacco smoking at any point during pregnancy. 0= No 1= Yes 9= Not Known
booking_smoking_history	History of tobacco smoking recorded at time of booking. 0= Never Smoked 1= Current Smoker 3= Former Smoker 9= Not Known

weight_of_mother	Weight of the woman in kilograms recorded at the booking clinic.
main_condition	Obstetric conditions are classified in Chapter XV of ICD10 Pregnancy, Childbirth and the Puerperium, (O00-O99).
other_condition_1	Codes may be selected from any other part of ICD10.
other_condition_2	Codes may be selected from any other part of ICD10.
other_condition_3	Codes may be selected from any other part of ICD10.
other_condition_4	Codes may be selected from any other part of ICD10.
other_condition_5	Codes may be selected from any other part of ICD10.
induction_of_labour	type of induction used actively to start labour by clinical intervention. 0= None 1= Artificial rupture of membranes (ARM) 2= Oxytocics 3= ARM + Oxytocics 4= Prostaglandins (includes cervical priming) 5= Prostaglandins + ARM 6= Prostaglandins and Oxytocics 7= Prostaglandins and ARM and Oxytocics 8= Other 9= Not Known
num_of_births_this_pregnancy	The number of babies delivered this episode.
birthweight_baby_1	First baby birthweight (g)
birthweight_baby_2	Second baby birthweight (g)
birthweight_baby_3	Thrid baby birthweight (g)
presentation_at_delivery_b1	First baby - Presentation at delivery is the part of the fetus which is lowest in relation to the position within the maternal pelvis. 1= Occipito-Anterior (OA) 2= Occipito-Posterior (OP) 3= Occipito-Lateral (OL) 4= Breech 5= Face/brow 6= Shoulder 7= Cord 8= Other 9= Not Known
presentation_at_delivery_b2	Second baby - Presentation at delivery is the part of the fetus which is lowest in relation to the position within the maternal pelvis.
presentation_at_delivery_b3	Third baby - Presentation at delivery is the part of the fetus which is lowest in relation to the position within the maternal pelvis.
mode_of_delivery_baby_1	First baby - method by which the baby is delivered

	0 = Normal, spontaneous vertex vaginal delivery, occipito-anterior 1 = Cephalic vaginal delivery, with abnormal presentation of the head at delivery, without instruments, with or without manipulation 2 = Low forceps, no rotation, forceps NOS (incl. Wrigleys) 3 = Other forceps delivery. Forceps with manipulation, high forceps, mid forceps 4 = Vacuum extraction ventouse 5 = Breech delivery, spontaneous, assisted or unspecified partial breech extraction 6 = Breech extraction, NOS. Version with breech extraction 7 = Elective (planned) caesarean section 8 = Emergency and unspecified caesarean section 9 = Other and unspecified method of delivery A = Mid cavity forceps, no rotation (incl. Haig Fergusson, Neville-Barnes etc) B = Rotational forceps (incl Kiellands) C = Ventouse, no rotation or unspecified D = Ventouse with rotation E = Other forceps delivery (includes 'high-cavity', high forceps)
mode_of_delivery_baby_2	Second baby - method by which the baby is delivered
mode_of_delivery_baby_3	Third baby - method by which the baby is delivered
outcome_of_pregnancy_baby_1	First baby - Outcome of pregnancy indicates whether the baby was liveborn or stillborn (or fetus was aborted in multiple pregnancy). 1= Livebirth 2= Stillbirth 3= Livebirth dying within the first 6 days (early neonatal death) 4= Livebirth dying on or after the 7th completed day but before the 28th day (late neonatal death) 5= Livebirth dying on or after the 28th completed day but before the end of the first year of life (postneonatal death) 8= Abortion of a dead fetus of a multiple pregnancy ending before 24 weeks of gestation in which the other twin is a live birth
outcome_of_pregnancy_baby_2	Second baby - Outcome of pregnancy indicates whether the baby was liveborn or stillborn (or fetus was aborted in multiple pregnancy).

outcome_of_pregnancy_baby_3	Third baby - Outcome of pregnancy indicates whether the baby was liveborn or stillborn (or fetus was aborted in multiple pregnancy).
resuscitation_baby_1	First baby - Form of resuscitation used. 1= Nil/Facial oxygen (includes 'mask only') 2= Bag and mask (no drugs); 3: Bag and mask (with drugs) 4= Intubation for IPPV (no drugs) 5= Intubation for IPPV (with drugs); 6: Drugs only (usually Nalaxone) 8= Other 9= Not Known
resuscitation_baby_2	Second baby - Form of resuscitation used.
resuscitation_baby_3	Third baby - Form of resuscitation used.
sex_baby_1	First baby – Sex 0= Not Known (i.e. indeterminate sex, includes 'Intersex') 1= Male 2= Female 8= Unknown 9= Not Specified
sex_baby_2	Second baby - Sex
sex_baby_3	Third baby - Sex
apgar_5_minutes_baby_1	A score based on assessment of five variables in the baby, each rated from 0 to 2 (0 worst, 2 best). A = appearance, P = pulse, G = grimace, A = activity, R = respiration 00-10 [0-10]: actual Apgar score at 5 minutes (or death before 5 minutes); RR: Baby being actively resuscitated at the 5 minute check (therefore Apgar score cannot be accurately taken); NR: Not Recorded
apgar_5_minutes_baby_2	A score based on assessment of five variables in the baby, each rated from 0 to 2 (0 worst, 2 best).
apgar_5_minutes_baby_3	A score based on assessment of five variables in the baby, each rated from 0 to 2 (0 worst, 2 best).
parity	The number of previous completed pregnancies that have resulted in a live birth or a stillbirth after 20 weeks of gestation.
neonatal_indicator_baby_1	First baby - Length of admission (or non-admission) to a neonatal unit following delivery 0= Not admitted 1= Admitted - for up to 48 hours 2= Admitted - for more than 48 hours 9= Not known

neonatal_indicator_baby_2	Second baby - Length of admission (or non-admission) to a neonatal unit following delivery
neonatal_indicator_baby_3	Third baby - Length of admission (or non-admission) to a neonatal unit following delivery
crown_heel_baby_1	First baby - length of the baby from its head to its heels when the legs are fully extended (cm)
crown_heel_baby_2	Second baby - length of the baby from its head to its heels when the legs are fully extended (cm)
crown_heel_baby_3	Third baby - length of the baby from its head to its heels when the legs are fully extended (cm)
admission_reason	Maternity Admission Reason 21= Abortion (includes ectopic pregnancy) 22= Pregnant but not in labour (includes threatened abortion) 23= In labour 24 Born before Arrival (maternity admission where the baby was born before arrival at the hospital) 25= Admitted after delivery at home (admitted following a home birth) 26= Admitted after delivery in any hospital (transfer of mother where birth occurred in another hospital) 28= Other type of maternity admission (incl doubtfully pregnant and incomplete abortion following complete abortion episode)
booking_arrangement_original	Original Location Booked for Delivery 00000= Not Booked D201N= Home Delivery E999H= UK Hospital outwith Scotland E888H= Hospital outside UK 99999= Not Known
duration_of_labour	Duration of labour (hours)
birthweight_group_baby_1	Birthweight Group of Baby 1 A= 0001-0499 g B =0500-0999 g C =1000-1499 g D =1500-1999 g E =2000-2499 g F =2500-2999 g G =3000-3499 g H =3500-3999 g I =4000-4499 g J =4500-9998 g K: Not Known
birthweight_group_baby_2	Birthweight Group of Baby 2
birthweight_group_baby_3	Birthweight Group of Baby 3

postcode	Mother's postcode
sex	Mother's sex
dob	Mother's dob
simd2020v2_rank	Scottish index of multiple deprivation 2020 version 2 based on data zone (2011) Rank 1: Most Deprived - 6976: Least Deprived
simd2016_rank	Scottish index of multiple deprivation 2016 version based on data zone (2011) Rank 1: Most Deprived - 6976: Least Deprived
simd2012_rank	Scottish index of multiple deprivation 2012 version based on data zone (2001) Rank 1: Most Deprived - 6505: Least Deprived
simd2009v2_rank	Scottish index of multiple deprivation 2009 version 2 based on data zone (2001) Rank 1: Most Deprived - 6505: Least Deprived
simd2006_rank	Scottish index of multiple deprivation 2006 version based on data zone (2001) Rank 1: Most Deprived - 6505: Least Deprived
simd2004_rank	Scottish index of multiple deprivation 2004 version based on data zone (2001) Rank 1: Most Deprived - 6505: Least Deprived
carstairs2011_score	2011 Carstairs and Morris Deprivation Score -7.53: Lowest Material Deprivation in Scotland - 13.24: Highest Material Deprivation in Scotland (Council Area split)
carstairs2001score	2001 Carstairs and Morris Deprivation Score -7.16: Lowest Material Deprivation in Scotland - 15.17: Highest Material Deprivation in Scotland (Council Area split)
carstairs1991score	1991 Carstairs and Morris Deprivation Score -5.68: Lowest Material Deprivation in Scotland - 12.75: Highest Material Deprivation in Scotland
carstairs1981score	-7.81: Lowest Material Deprivation in Scotland - 12.98: Highest Material Deprivation in Scotland
hb2019	Health board 2019

Mental Health Inpatient and Day Case - Scottish Morbidity Record (SMR04)

The Mental Health Inpatient and Day Case dataset (SMR04) collects episode level data on patients who are receiving care at psychiatric hospitals at the point of both admission and discharge.

The dataset contains a wide variety of information such as patient characteristics, mental health diagnosis, length of stay, destination on discharge, whether they are admitted under Mental Health Legislation and any previous psychiatric care.

https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/mental-health-inpatient-and-day-case-scottish-morbidity-record-smr04/

Variable Name	Description
admission_date	Admission date
discharge_date	Discharge date
specialty	Speciality (lookup at end of doc)
main_condition	ICD code
other_condition_1	Other condition ICD code
other_condition_2	Other condition ICD code
other_condition_3	Other condition ICD code
other_condition_4	Other condition ICD code
other_condition_5	Other condition ICD code
main_operation	Main operation ICD code
other_operation_1	Other operation ICD code
other_operation_2	Other operation ICD code
other_operation_3	Other operation ICD code
date_of_main_operation	Date of main operation
date_of_other_operation_1	Date of other operation
date_of_other_operation_2	Date of other operation
date_of_other_operation_3	Date of other operation
status_on_admission	The status of the patient at the time of admission to the episode with respect to the Mental Health (Care and Treatment) (Scotland) Act of 2003. 'Formal' refers to patients who have been detained under the provisions of the Act just mentioned. 'Informal' refers to voluntary Mental Health admissions. 1= Informal (excluding holiday/respite) 2= Informal - holiday/respite 3= Formal 4= Informal
admission_main_condition	The main medical problem which the patient is experiencing at the time of admission. (ICD10)

admission_other_condition_2	Other medical conditions which contributed to the decision to admit the patient or which were identified on admission as requiring management (ICD10)
admission_other_condition_3	As above
admission_other_condition_4	As above

Scottish Cancer Registry (SMR06)

Public Health Scotland is responsible for the collection of the Scottish Cancer Registry (SMR06). Information is collected on every new diagnosis of cancer occurring in Scottish residents. The registry began in 1958 collecting personal, demographic and diagnosis information such as: site, histology, behaviour, histological confirmation, hospital of diagnosis. From 1997 the dataset has continued to grow and has extended to include extra diagnostic, stage and treatment information.

https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/scottish-cancer-registry-smr06/

Variable Name	Description
date_of_death	Date of death
date_of_reg	The date the Cancer Information Officer confirms a registration on the SOCRATES cancer registration database, having passed all validation checks. This is automatically allocated by the Socrates system.
incidence_date	The date that the cancer in question becomes formally known to NHS Scotland.
icd10s_cancer_site	The anatomical site of origin of the primary tumour, format ICD10
icdo2_icdo2	The anatomical site of origin of the primary tumour, format ICD02
grade_classification	The classification system used for grading the tumour. 1 = Grading for Breast Cancer 2 = ICDO/UICC grading system 3 = Gleason Score (Prostate) 5 = Fuhrman Nuclear Grade 6 = WHO grade for brain and CNS tumours 8 = Other 9 = Not determined/not stated/not applicable
grade_cell_type	Indicates the degree of differentiation of malignant tumours. 0 - 10, G1, G2, GX.
method_1st_detection	Indicates how the tumour was first detected. 1 = Screening examination 2 = Incidental finding 3 = Clinical presentation 4 = Incidental finding at autopsy 5 = Interval Cancer 8 = Other

	9 = Not known
stage_clinical_t	Indicates the extent of the spread of the tumour at diagnosis in terms of clinical findings. Stage is associated with invasive tumours only. T-size/extent of primary tumour based on clinical examination +- imaging
stage_clinical_n	Condition of regional lymph nodes/glands based on clinical examination +- imaging
stage_clinical_m	Indicates distant metastases
stage_pathologic_t	Indicates the extent of the spread of the tumour at diagnosis in terms of the pathalogical findings. Stage is associated with invasive tumours only. T-size/extent of primary tumour based on clinical examination +- imaging. Breast and lung
stage_pathologic_n	Condition of regional lymph nodes/glands based on clinical examination +- imaging
stage_pathologic_m	Indicates distant metastates.
clinical_extent_of_disease	Clinical Extent of Disease is collected for invasive lung tumours. 1 = Localised 2 = Regional Spread 3 = Distant Metastases 4 = Not Known
tumour_size	Pathological tumour size: the maximum diameter in mm of the invasive component of the tumour in the fresh or fixed state on the histological preparation. For invasive breast tumours only. (mm)
nodes_examined	Pathological nodal status -Indicates what regional lymph nodes were examined. 0 = No regional lymph nodes removed or aspirated 1 = Aspiration or biopsy of regional lymph node 2 = Sentinel lymph node biopsy 3 = Regional lymph node dissection 4 = Not known
no_of_nodes_examined	Indicates how many of the regional lymph nodes were examined
positive_nodes	Indicates if any of the regional lymph nodes were positive. 1 = Yes 0 = No 9 = Not known
no_positive_nodes	Pathological nodal status -Indicates how many of the regional lymph nodes were positive.
surgery	Indicates if the patient has been treated with surgery. 1 = Yes

	0 = No 7 = Planned 9 = Not known
date_1st_surgery	Date of first surgery
treated_with_rad	Treated with radiotherapy. 1 = Yes 0 = No 7 = Planned 9 = Not known
date_1st_rad	Date of first radiotherapy
chemo	Treated with chemotherapy 1 = Yes 0 = No 7 = Planned 9 = Not known
date_1st_chemo	Date of first chemotherapy
her2	Herceptin receptor status. Record status regardless of any qualifying statements, e.g. weakly positive. This is collected for invasive breast tumours only. 0 = Negative 1 = Positive 9 = Not known
progesterone_receptor_status	Progesterone receptor status. Record status regardless of any qualifying statements, e.g. weakly positive. This is collected for invasive breast tumours only. 0 = Negative 1 = Positive 2 = Borderline 9 = Not known)
erstatus	OESTROGEN RECEPTOR STATUS Record status regardless of any qualifying statements, e.g. weakly positive. This is collected for invasive breast tumours only. 0 = Negative 1 = Positive 2 = Borderline 9 = Not known
grade_cell_type_minor	Gleason secondary pattern valid for all C61X prostate cancers.
gleason_major	Gleason primary pattern valid for all C61X prostate cancers. 1 = Score total 1 2 = Score total 2 3 = Score total 3 4 = Score total 4 5 = Score total 5

	9 = Not known
grade_cell_type_tertiary	Gleason tertiary pattern valid for all C61X prostate cancers. This indicates a generally more aggressive pattern of tumour. 1 = Score total 1 2 = Score total 2 3 = Score total 3 4 = Score total 4 5 = Score total 5 9 = Not known
postcode	Postcode
sex	Sex
date_of_birth	Date of birth
hb2019	Health board code (2019)

Scottish Birth Record (SBR)

The SBR was introduced in 2002 and provides the functionality to record all of a baby's neonatal care in Scotland using episode-based recording. Previously the Neonatal inpatient dataset - Scottish Morbidity Record (SMR11) recorded every baby until 1996. From 1996 the SMR11 was reserved for sick babies or babies with congenital anomalies. Healthy babies were recorded on SMR02 maternity record. SMR11 covers the period 1975-2003. In general, SBR records were thought to be reasonably complete for babies admitted to neonatal care from around 2004 onwards, and for all babies from around 2010 onwards.
https://www.publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/scottish-birth-record-sbr/#:~:text=The%20SMR11%20recorded%20every%20baby,being%20replaced%20by%20the%20SBR.

Variable Name	Description
b_number	Number of births this pregnancy 1-8: Actual number of Births; 9: Not Known
b_order	Birth order (for this baby) 1-8: Order of Birth; 9: Not Known
birthweight	Birthweight (g)
c1	Main condition including all congenital abnormalities (ICD9/ICD10)
c2	Other condition codes (ICD9/ICD10)
c3	Other condition codes (ICD9/ICD10)
c4	Other condition codes (ICD9/ICD10)
c5	Other condition codes (ICD9/ICD10)
c6	Other condition codes (ICD9/ICD10)
c7	Other condition codes (ICD9/ICD10)
c8	Other condition codes (ICD9/ICD10)
c9	Other condition codes (ICD9/ICD10)
c10	Other condition codes (ICD9/ICD10)

distress	Foetal Distress
dob	Date of birth of baby
dt1	Date of Admission
dt2	Child's (Patient) Date of Discharge
gestation	Gestation age by assessment 0-98: Number of Weeks; 99: Not Known
guthrie	Flag for Guthrie spot
sex	Baby sex

Primary Care

General Practice (GP)

Data relating to all general practice attendances in Scotland. Full dataset data is available via UKLLC for COVID-19 related research. For any other topic data is only available from GPs who have consented to share GP data.

Variable Name	Description
EncounterKey	Represents encounter/consultation.
StartDate	Consultation Date
ReadCode	ReadCodeV2
Data1	Additional data
Data2	Additional data - results of lab tests
Data3	Additional data - units of lab tests

GP Out-of-Hours Data

Data on patients seen by GP out of hours, maintained by Public Health Scotland. National data collection began in April 2014.

Variable Name	Description
sex	Patient's sex
practice	GP practice code
hb	Health board code
referral	The source of the referral to the GP OOH Service, categorised into national groupings.
triage	The organisation which triaged the patient at reception, e.g. NHS 24, OoH Centre Staff, Other.
dt	The date & time the patient first came into contact with the GP OOH Service.
readcode	The code of the diagnosis (READ V2)
diagnosis	Diagnosis text
outcome	The outcome of the case, categorised into national groupings.
care_home	Flag indicating whether or not the patient is a resident of a care home.
died	Flag indicating whether or not the patient has died.
pc_area	Postcode area

Other Datasets

Prescribing Information System (PIS)

The Prescribing Information System (PIS) is the definitive data source for all prescribing relating to all medicines and their costs that are prescribed and dispensed in the community in Scotland. https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/prescribing-information-system-pis/

Prescriptions table

Variable Name	Description
presc_date	The date the prescription was prescribed
disp_date	The date the prescription was dispensed
bnf	15 digit code, first 7 digits correspond to BNF categories, last 8 digits to identify the medicinal product
approved	Drug item's approved name as it appears on the latest edition of the BNF
drug_name	The prescribable item name which could be generic or proprietry
formulation	drug item formulation
qty	Quantity of drug/appliance paid (may be different to what was prescribed or dispensed)
strength	Prescribable item's strength and unit of measure
dose_id	Link to dosage table
pre_gs	Diagnosis before joined GS flag

Dosage Table

Variable Name	Description
dose_id	Dose id
instructions	Instructions to administer medication
amount_min	Min amount present in dosage text
amount_max	Max amount present in dosage text
amount_unit	Amount Unit present in dosage text
freq_min	Min consumption frequency present in dosage text
freq_max	Max consumption frequency present in dosage text
freq_unit	Frequency unit present in dosage text
interval_min	Min time interval between doses present in dosage text
interval_max	Max time interval between doses present in dosage text
interval_unit	Interval unit between dosage present in dosage text
as_required	True if text meaning 'as required' present in dosage text
as_directed	True if text meaning 'as directed' present in dosage text

Scottish Medical Imaging (SMI)

Images generated as part of routine NHS care are extremely useful for a wide variety of research that offers great public benefit. Scottish Medical Imaging is a database of de-identified images, subsets of which can be linked to other health and administrative data for approved research studies. Modalities: Computerised Tomography (CT), Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET), Structured Reports (SRs). https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/scottish-medical-imaging-smi/smi-catalogue/

Variable Name	Description
StudyInstanceUID	Unique identifier for the study/imaging session.
SeriesInstanceUID	Unique identifier for a series (a collection of images or scans acquired during a session)
SOPInstanceUID	Unique identifier for an image within the series
AcquisitionNumber	A number identifying the single continuous gathering of data over a period of time that resulted in this instance UID.
AcquisitionDate	The date the acquisition of data
AcquisitionTime	The time the acquisition of data
ImageType	Identifies important image identification characteristics: Pixel Data Characteristics o is the image an ORIGINAL Image; an image whose pixel values are based on original or source data o is the image a DERIVED Image; an image whose pixel values have been derived in some manner from the pixel value of one or more other images Examination Characteristics o is the image a PRIMARY Image; an image created as a direct result of the patient examination o is the image a SECONDARY Image; an image created after the initial patient examination Modality Specific Characteristics Implementation specific identifiers; other implementation specific identifiers shall be documented in an implementation's conformance statement.
ImagePositionPatient	Specifies the x, y, and z coordinates of the upper left hand corner of the image; it is the centre of the first voxel transmitted.

Routine laboratory testing (SCI-STORE)

SCI-Store is a data repository which retains patient laboratory test result information at a health board level.

Variable Name	Description
dt	Result date
read_code	ReadCodev2
description	Test description
qty	Value of test result
unit	Unit of measurement for test (eg.mmol/l)
source	Lab source A= Aberdeen G= Glasgow T= Tayside

Accident and Emergency (A&E)

Data from June 2007 on patient attendances at emergency departments and minor injuries units and community hospital A&Es across NHS Scotland.

Variable Name	Description
arrival_mode_code	Means by which a patient came into the care of an A&E department.
referral_source_code	The individual, healthcare professional or service e.g. police that makes the decision that the person is to attend A&E.
triage_category_code	Category assigned to a patient as a result of an initial assessment by medical or nursing staff in an A&E department.
dat_date	Event date
diagnosis_1_code	Working diagnosis(es) on discharge, or where no working diagnosis is made, the main symptom(s), abnormal finding(s), or problem(s).
diagnosis_1_description	Working diagnosis(es) on discharge, or where no working diagnosis is made, the main symptom(s), abnormal finding(s), or problem(s).
diagnosis_1_text	Freetext
diagnosis_2_code	Working diagnosis(es) on discharge, or where no working diagnosis is made, the main symptom(s), abnormal finding(s), or problem(s).
diagnosis_2_description	Working diagnosis(es) on discharge, or where no working diagnosis is made, the main symptom(s), abnormal finding(s), or problem(s).
diagnosis_2_text	Freetext
diagnosis_3_code	Working diagnosis(es) on discharge, or where no working diagnosis is made, the main symptom(s), abnormal finding(s), or problem(s).

diagnosis_3_description	Working diagnosis(es) on discharge, or where no working diagnosis is made, the main symptom(s), abnormal finding(s), or problem(s).
diagnosis_3_text	Freetext
disease_1_code	ICD10 code(s) of the working diagnosis(es) on discharge, or where no working diagnosis is made, the ICD10 code(s) of the main symptom(s), abnormal finding(s), or problem(s).
disease_1_description	Description
disease_2_code	ICD10 code(s) of the working diagnosis(es) on discharge, or where no working diagnosis is made, the ICD10 code(s) of the main symptom(s), abnormal finding(s), or problem(s).
disease_2_description	Description
disease_3_code	ICD10 code(s) of the working diagnosis(es) on discharge, or where no working diagnosis is made, the ICD10 code(s) of the main symptom(s), abnormal finding(s), or problem(s).
disease_3_description	Description
attendance_category_code	A record of whether a patient is making a first or follow-up contact with a particular A&E department
attendance_category_description	Description
activity_when_injured_code	The type of activity the injured person was engaged in when the injury occurred (ICECI)
activity_when_injured_description	Description
bodily_location_of_injury_code	The bodily location of the injury chiefly responsible for occasioning the attendance of the person at the health care facility
bodily_location_of_injury_description	Description
external_cause_of_injury_code	The event, circumstance or condition associated with the occurrence of injury, poisoning or violence.
external_cause_of_injury_description	Description
presenting_complaint_text	Freetext

NHS24

Records of telehealth and telecare services provided through nhs24.scot website and NHS 24 111 phone service. Data from 2011.

Variable Name	Description
dt	Call Start Date and Time
outcome_code	Call Outcome Code
outcome_desc	Call Outcome Description
outcome_group	Call Outcome Group
sex	Sex

hb	Health board code
covid	COVID-19 Flag
care_home	Care Home Flag
died	Died flag
pc_area	Postcode area

Scottish Drug Misuse Dataset (SDMD)

Collects information about people in Scotland seeking specialist treatment for drug use. The database holds information on demographic and behavioural characteristics of new clients coming to the attention of medical services (general practice, hospital etc.) and specialist drug services. This was replaced by the Drug and Alcohol Infomration System (DAISy) in 2021.

The initial SMR22 dataset was in use from 1990 onwards, collecting a limited amount of data and with initially sporadic returns. SMR24 was introduced in April 2001 and provided profiles of clients coming into care for treatment of their drugs misuse problem. In addition, more information was collected about the client's social circumstances and drug using habits than was collected previously.

In April 2006, SMR25a (covering new assessments) were introduced to reflect the need for more in depth and focussed information from clients. Key changes to the dataset included the addition of Blood Borne Virus and Dependent children data.

https://publichealthscotland.scot/population-health/improving-scotlands-health/drugs/data-and-intelligence/scottish-drug-misuse-database-sdmd/
https://webarchive.nrscotland.gov.uk/20230710191513/https://www.isdscotland.org/Health-Topics/Drugs-and-Alcohol-Misuse/Drugs-Misuse/Scottish-Drug-Misuse-Database/

Variable Name	Description
active	Is client being actively treated/cared for by this agency
age_first	Age when first started using illicit drugs (years)
age_onset	Age at onset of problem illicit drug use (years)
age_sought	Age when help first sought (years)
alc_freq	How often did client have an alcoholic drink?
alc_month	Have you consumed alcohol in the past month
alc_units	In a typical day how many units did the client usually have?
contact_prev	Previous contact with any drug treatment services (yes/no)
contact_yr	If yes, year of last contact (YYYY)
drug_1	Main drug code
drug_2	drug code
drug_3	drug code
drug_4	drug code
drug_5	drug code
drugfree	Illicit drugs not used in the past month
dt_assess	Date this assessment completed (if not completed, date last seen)

dt_contact	Date contact first made (this episode only include letter/phone referrals)
dt_offer	Date first appointment offered
freq_1	drug_1 frequency ie. daily/most days/weekends/weekly/ fortnightly/monthly
freq_2	drug_2 frequency
freq_3	drug_3 frequency
freq_4	drug_4 frequency
freq_5	drug_5 frequency
inj_age	Age first injected (years)
inj_ever	Infected ever
rec_type	SMR24/SMR25
route_1	drug_1 route eg. IV/IM/smoke/swallow/inhale/snort
route_2	drug_2 route eg. IV/IM/smoke/swallow/inhale/snort
route_3	drug_3 route eg. IV/IM/smoke/swallow/inhale/snort
route_4	drug_4 route eg. IV/IM/smoke/swallow/inhale/snort
route_5	drug_5 route eg. IV/IM/smoke/swallow/inhale/snort
sex	Sex

National Records of Scotland (NRS): Deaths Data

All deaths occurring in Scotland from 1974.

https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/national-records-of-scotland-nrs-deaths-data/

Variable Name	Description
sex	Sex
dob	Date of birth
dod	Date of death
aged	Age at death
cause	Cause of death ICD code
sec0	Cause of death ICD code (underlying condition or event that initiated the sequence of events leading to death)
sec1	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec2	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec3	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec4	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec5	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec6	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)

sec7	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec8	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
sec9	Secondary cause of death ICD code (contributed to or were consequences of the primary cause)
covid	COVID-19 flag
dob_ym	Date of birth (year month)
dod_ym	Date of death (year month)

Dental data - Management information and dental accounting system (MIDAS)

The MIDAS is the computerised payment system for general dental system dentists.
https://publichealthscotland.scot/healthcare-system/primary-care/dental-care/general-dental-service-gds/data-collection/

Variable Name	Description
date1	Appointment date
date2	Fee date
dentist	Dentist code
dob	Patient date of birth
feecode	Code for treatment
isd	Information Services Division (ISD) of NHS Scotland, codes are used to identify and categorize various aspects of dental services, including registration, participation, fees, treatments, and the dental workforce.
loc	Location code
pc_dent	Dentist postcode
sdr_group	statement of dental renumeration (SDR) code
sdr_group_desc	SDR group description
sdr_item	SDR item code
sdr_item_desc	SDR item description
sex	Patient sex

Scottish Care Information - Diabetes Collaboration (SCI-DC)

SCI-Diabetes is NHS Scotland's diabetes patient management system. It is used in every health board and holds data on all people with diabetes living in Scotland. https://www.sci-diabetes.scot.nhs.uk/#:~:text=SCI%2DDiabetes&text=SCI%2DDiabetes%20is%20NHS%20Scotland's,treatment%20of%20people%20with%20Diabetes.

Variable Name	Description
diabetes_type	Diabetes type (includes pre diabetes types)
ethnic	Ethnic group
diabetes_duration	Duration of diabetes (years)
num_diabetes_drugs	Number of diabetes drugs
drugs_observable_on_ref_date	Number of drugs observable on reference date
on_insulin	On insulin flag 1/0
on_sglt2i	On SGLT2 inhibitors flag 1/0
on_dpp4i	On DPP-4 inhibitors/gliptins flag 1/0
on_sulphonylurea	on Sulfonylureas flag 1/0
on_metformin	On metformin flag 1/0
on_glp1_agonist	On GLP-1 agonists flag 1/0
on_tzd	On Thiazolidinediones (TZDs), also known as glitazones flag 1/0
ref_date	Reference date
latest_egfr	Latest Estimated Glomerular Filtration Rate (EGFR) mL/min/1.73m^2
latest_egfr_date	Latest EGFR date
latest_hba1c	Value of latest hba1c test (mmol/mol)
latest_hba1c_date	Date of latest hba1c blood test
latest_ckd_stage	Stage of chronic kidney disease (1-4)
latest_ckd_stage_date	Date of latest stage assessment date
latest_bp_sys	Latest blood pressure (systolic) value
latest_bp_sys_date	Latest blood pressure (systolic) date
latest_bp_dias	Latest blood pressure (diastolic) value
latest_bp_dias_date	Latest blood pressure (diastolic) date
latest_bmi	Latest BMI value
latest_bmi_date	Latest BMI date

COVID-19

COVID-19 Vaccinations

The PHS vaccinations dataset began in December 2020 collecting COVID-19 vaccinations data from Turas Vaccine Management tool and GPIT systems. Covers all vaccinations occurring in Scotland and for Scottish residents vaccinated elsewhere.

https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/vaccinations-dataset/#summary

Variable Name	Description
sex	Sex
postcode	Postcode
health_board	Health Board code
council_area	Council Area code
age	Age
age_band	Age Band
data_source	Data source
dose_number	Dose number
vacc_health_board	Vaccine health board code
dt1	Date of first vaccination
dt2	Date of second vaccination
days	Number of days between doses
product_name	Vaccine name
cohort_desc	Cohort group description
jcvi_priority	Priority group code

Electronic Communication of Surveillance Scotland (ECOSS) - COVID-19 Cases

ECOSS is a PHS Surveillance system that receives laboratory test results (including patient identifiable information) from all Scottish NHS labs.

https://publichealthscotland.scot/resources-and-tools/health-intelligence-and-data-management/national-data-catalogue/national-datasets/search-the-datasets/electronic-communication-of-surveillance-scotland-ecoss/#summary

Variable Name	Description
ecoss_reporting_health_board_code	Reporting health board code
subject_derived_age_years	Age
subject_sex_code	Sex
date_ecoss_specimen	Date of Specimen
ecoss_organism	Organism
test_result	Test result
ecoss_specimen_source_type	Source of specimen eg. Hospital
care_home_location_id	Care home location ID

postcode_area	Postcode area
date_specimen_received_at_ecoss	Date Specimen received
ecoss_submitting_laboratory	ECOSS submitting laboratory name
laboratory_code	Laboratory code
key_worker_grouping	Key worker grouping
organisation_role	Organisation role

Intensive Care Unit (ICU)

The Scottish Intensive Care Society Audit Group (SICSAG) is part of the Scottish National Audit Programme (SNAP) within the Clinical and Protecting Health Directorate of PHS. The aim of SICSAG is to improve the care of critical care patients in Scotland by a systematic and comprehensive audit of their management and outcomes. SICSAG has maintained a national database of patients admitted to adult critical care units in Scotland since 1995.

Variable Name	Description
Admit_Time	Date admitted to Unit
Admit_Unit	Time admitted to Unit
Age	Patient age at admission
Destination_Derived	Destination {type}
Disc_Date	Discharged on {date}
Disc_Time	Discharged time
episode_id	Episode ICU Link
Reason_Disc	Reason for discharge
Sex	Patient sex
ACP_date	Augmented Care Period (ACP) date
Face_Mask	Mask/Cannulae flag
Need_Vent	Potential need for ventilation flag
Ventilator	Connected to a Ventilator flag

Specialty codes

A1 General Medicine	C5 Ear, Nose & Throat
A11 Acute Medicine	C51 Audiological Medicine
A2 Cardiology	C6 Neurosurgery
A3 Clinical Genetics	C7 Ophthalmology
A4 Tropical Medicine	C8 Trauma & Orthopaedic Surgery
A6 Infectious Diseases	C9 Plastic Surgery
A7 Dermatology	CA Paediatric Surgery
A8 Endocrinology	CB Urology
A81 Endocrine	D3 Oral Surgery
A82 Diabetes	D4 Oral Medicine
A9 Gastroenterology	D5 Orthodontics
AB Geriatric Medicine	D6 Restorative Dentistry
AC Homoeopathy	D8 Paediatric Dentistry
AD Medical Oncology	E11 GP Obstetrics
AF Paediatrics	E12 GP Other than Obstetrics
AG Renal Medicine	F2 Gynaecology
AH Neurology	F3 Obstetrics
AJ Integrative Care	F31 Obstetrics Antenatal
AK Occupational Medicine	F32 Obstetrics Postnatal
AM Palliative Medicine	F4 Community Sexual & Reproductive
AP Rehabilitation Medicine	Health
AQ Respiratory Medicine	G1 General Psychiatry
AR Rheumatology	G2 Child & Adolescent Psychiatry
AV Clinical Neurophysiology	G21 Child Psychiatry
AW Allergy	G22 Adolescent Psychiatry
C1 General Surgery	G3 Forensic Psychiatry
C11 General Surgery (excl. Vascular)	G4 Psychiatry of Old Age
C12 Vascular Surgery	G5 Learning Disability (Mental Handicap)
C13 Oral and Maxillofacial Surgery	G6 Psychotherapy
C3 Anaesthetics	H1 Clinical Radiology
C31 Pain Management	H2 Clinical Oncology
C4 Cardiothoracic Surgery	J3 Chemical Pathology
C41 Cardiac Surgery	J4 Haematology J5 Immunology
C42 Thoracic Surgery	R11 Surgical Podiatry
	T2 Midwifery