

Table S1: List of primary care Read codes and hospital admission ICD-10 codes for identifying conditions in the DHI

Type	Sub-indicator	Dataset	Description	Codes
Read code version 2	Drugs used in infections	WLGP	Prescription used in infections	e%
Read code version 2	Analgesic	WLGP	Analgesic prescriptions	j%, di%, dj%
Read code version 2	Mental health	WLGP	Mental health drugs prescription	d1%, d2%, d3%, d4%, d5%, d6%, d7%, d8%, d9%, da%
ICD-10	Hospital admission	PEDW	Outcome of delivery	Z37%
ICD-10	Hospital admission	PEDW	Delivery	O80%-O84%
ICD-10	Hospital admission	PEDW	Complications predominantly related to the puerperium	O85%-O99%
ICD-10	Hospital admission	PEDW	Complications of labour and delivery	O60%, O67%-O69%, O702%, O71%-O75%

Table S2: Distribution of population by demographic information and meeting the desirable health indicator in 2021-2019

Demographic	Description	2021				2020				2019			
		Total Population		Met DHI		Total Population		Met DHI		Total Population		Met DHI	
		N	%	N	%	N	%	N	%	N	%	N	%
Total	NA	2,641,320	100.0%	1,219,643	46.2%	2,638,746	100.0%	1,281,201	48.6%	2,630,961	100.0%	1,102,281	41.9%
Sex	Male	1,313,641	49.7%	686,548	52.3%	1,315,488	49.9%	720,053	54.7%	1,311,065	49.8%	624,918	47.7%
	Female	1,327,679	50.3%	533,095	40.2%	1,323,258	50.1%	561,148	42.4%	1,319,896	50.2%	477,363	36.2%
Age group	0-9	278,066	10.5%	165,922	59.7%	281,438	10.7%	181,555	64.5%	285,875	10.9%	145,982	51.1%
	10-19	291,613	11.0%	182,516	62.6%	289,033	11.0%	191,956	66.4%	287,148	10.9%	159,920	55.7%
	20-29	305,701	11.6%	154,297	50.5%	317,908	12.0%	173,567	54.6%	320,312	12.2%	153,993	48.1%
	30-39	340,674	12.9%	165,368	48.5%	337,879	12.8%	172,994	51.2%	333,835	12.7%	153,940	46.1%
	40-49	324,836	12.3%	154,030	47.4%	325,193	12.3%	159,311	49.0%	329,334	12.5%	145,101	44.1%
	50-59	378,804	14.3%	163,256	43.1%	376,386	14.3%	166,757	44.3%	373,185	14.2%	147,985	39.7%
	60-69	315,297	11.9%	122,791	38.9%	310,910	11.8%	123,977	39.9%	309,649	11.8%	106,249	34.3%
	70-79	261,579	9.90%	82,963	31.7%	255,282	9.67%	81,672	32.0%	249,542	9.48%	65,545	26.3%
	80-89	119,577	4.53%	25,011	20.9%	119,298	4.52%	25,567	21.4%	116,983	4.45%	20,155	17.2%
	90+	25,173	0.95%	3,489	13.9%	25,419	0.96%	3,845	15.1%	25,098	0.95%	3,411	13.6%
WIMD income quintile	1. Most deprived	552,772	20.9%	232,783	42.1%	551,602	20.9%	246,399	44.7%	549,402	20.9%	207,768	37.8%
	2	534,365	20.2%	233,192	43.6%	531,726	20.2%	244,508	46.0%	531,752	20.2%	210,180	39.5%
	3	527,896	20.0%	248,216	47.0%	527,672	20.0%	261,050	49.5%	521,543	19.8%	223,121	42.8%
	4	499,472	18.9%	239,398	47.9%	498,880	18.9%	250,322	50.2%	498,957	19.0%	217,133	43.5%
	5. Least deprived	526,815	19.9%	266,054	50.5%	528,866	20.0%	278,922	52.7%	529,307	20.1%	244,079	46.1%



Table S3: Distribution of population by demographic information and meeting the desirable health indicator in 2018-2016

Demographic	Description	Total 2018		Met DHI 2018		Total 2017		Met DHI 2017		Total 2016		Met DHI 2016	
		N	%	N	%	N	%	N	%	N	%	N	%
Total		2,604,123	100.0%	1,085,848	41.7%	2,607,890	100.0%	1,071,577	41.1%	2,606,129	100.0%	1,044,672	40.1%
Sex	Male	1,298,120	49.8%	617,008	47.5%	1,300,256	49.9%	611,199	47.0%	1,301,051	49.9%	599,183	46.1%
	Female	1,306,003	50.2%	468,840	35.9%	1,307,634	50.1%	460,378	35.2%	1,305,078	50.1%	445,489	34.1%
Age group	0-9	286,952	11.0%	146,016	50.9%	288,798	11.1%	141,528	49.0%	290,126	11.1%	135,063	46.6%
	10-19	283,403	10.9%	157,515	55.6%	284,015	10.9%	152,843	53.8%	286,665	11.0%	151,550	52.9%
	20-29	322,390	12.4%	155,858	48.3%	326,410	12.5%	156,710	48.0%	330,065	12.7%	155,365	47.1%
	30-39	325,803	12.5%	149,804	46.0%	321,321	12.3%	147,184	45.8%	318,004	12.2%	143,402	45.1%
	40-49	332,643	12.8%	145,195	43.6%	342,733	13.1%	148,414	43.3%	350,659	13.5%	148,647	42.4%
	50-59	366,204	14.1%	144,056	39.3%	363,055	13.9%	141,810	39.1%	358,777	13.8%	136,435	38.0%
	60-69	307,676	11.8%	103,807	33.7%	313,543	12.0%	104,664	33.4%	315,099	12.1%	101,313	32.2%
	70-79	239,991	9.22%	61,339	25.6%	230,389	8.83%	56,717	24.6%	221,111	8.48%	52,294	23.7%
	80-89	114,293	4.39%	19,089	16.7%	112,770	4.32%	18,576	16.5%	111,099	4.26%	17,680	15.9%
	90+	24,768	0.95%	3,169	12.8%	24,856	0.95%	3,131	12.6%	24,524	0.94%	2,923	11.9%
WIMD income quintile	1. Most deprived	543,272	20.9%	204,229	37.6%	538,793	20.7%	198,104	36.8%	540,960	20.8%	193,082	35.7%
	2	529,319	20.3%	207,661	39.2%	527,841	20.2%	204,148	38.7%	528,139	20.3%	198,724	37.6%
	3	517,065	19.9%	220,183	42.6%	523,619	20.1%	219,282	41.9%	521,851	20.0%	214,760	41.2%
	4	494,309	19.0%	214,549	43.4%	491,247	18.8%	210,616	42.9%	485,331	18.6%	202,416	41.7%
	5. Least deprived	520,158	20.0%	239,226	46.0%	526,390	20.2%	239,427	45.5%	529,848	20.3%	235,690	44.5%

Table S4: Distribution of population by demographic information and meeting the desirable health indicator in 2015

Demographic	Description	2015			
		Total Population		Met DHI	
		N	%	N	% of Total
Total	NA	2,577,081	100.0%	1,020,675	39.6%
Sex	Male	1,286,221	49.9%	585,817	45.5%
	Female	1,290,860	50.1%	434,858	33.7%
Age group	0-9	286,542	11.1%	131,590	45.9%
	10-19	286,462	11.1%	148,885	52.0%
	20-29	329,242	12.8%	153,755	46.7%
	30-39	310,650	12.1%	138,248	44.5%
	40-49	355,634	13.8%	148,183	41.7%
	50-59	348,088	13.5%	131,026	37.6%
	60-69	311,183	12.1%	98,742	31.7%
	70-79	216,021	8.38%	49,942	23.1%
	80-89	109,223	4.24%	17,255	15.8%
	90+	24,036	0.93%	3,049	12.7%
WIMD income quintile	1. Most deprived	530,392	20.6%	186,771	35.2%
	2	521,306	20.2%	193,056	37.0%
	3	517,144	20.1%	209,699	40.5%
	4	481,146	18.7%	198,827	41.3%
	5. Least deprived	527,093	20.5%	232,322	44.1%

Figure S5: Desirable health indicator by age, sex, and deprivation quintiles in 2021

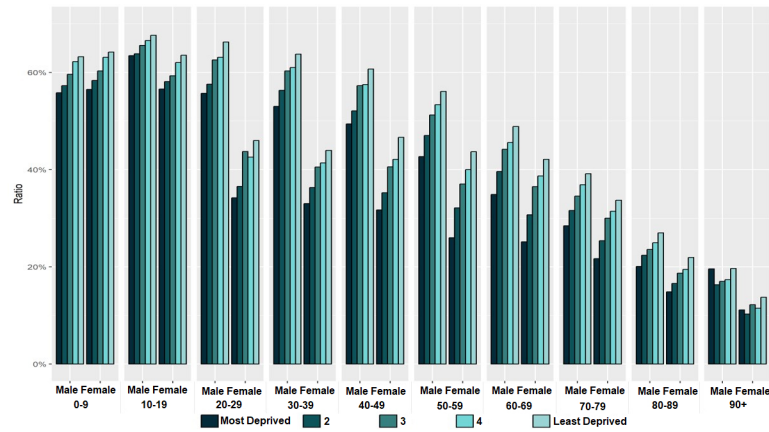


Figure S6: Desirable health indicator by age, sex, and deprivation quintiles in 2020

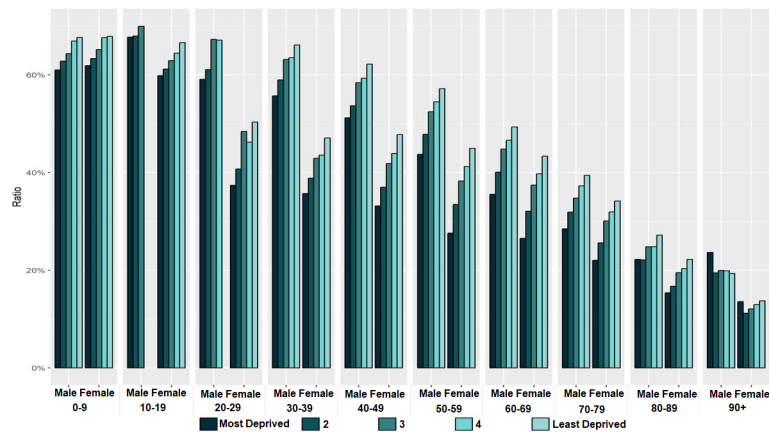


Figure S7: Desirable health indicator by age, sex, and deprivation quintiles in 2019

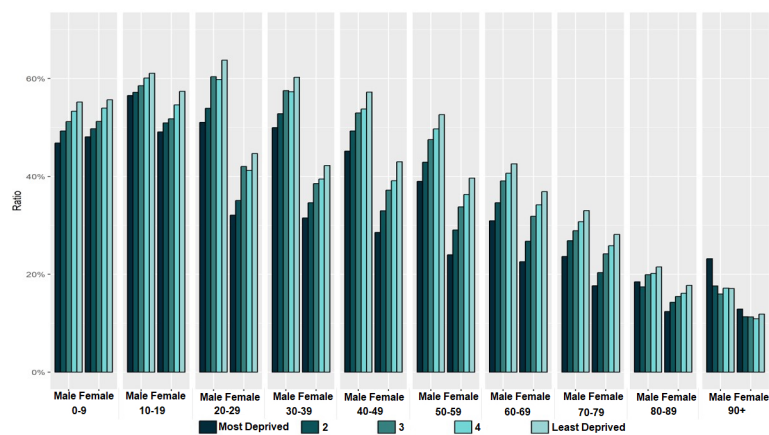


Figure S8: Desirable health indicator by age, sex, and deprivation quintiles in 2018

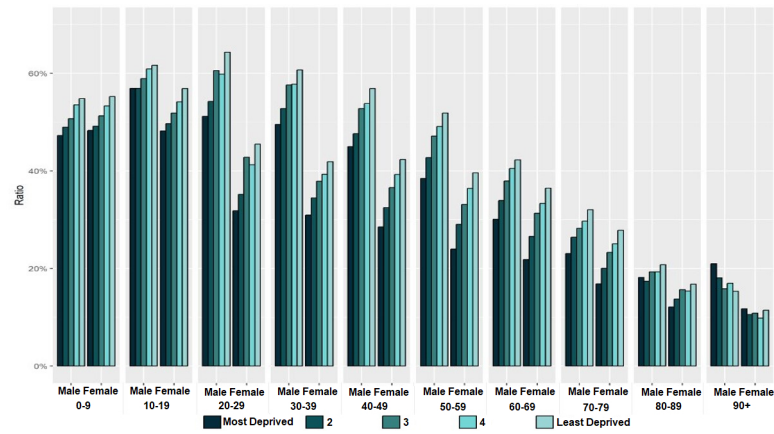


Figure S9: Desirable health indicator by age, sex, and deprivation quintiles in 2017

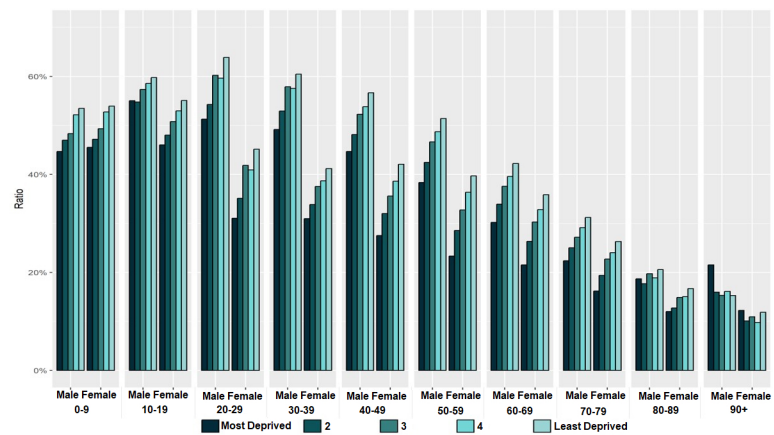


Figure S10: Desirable health indicator by age, sex, and deprivation quintiles in 2016

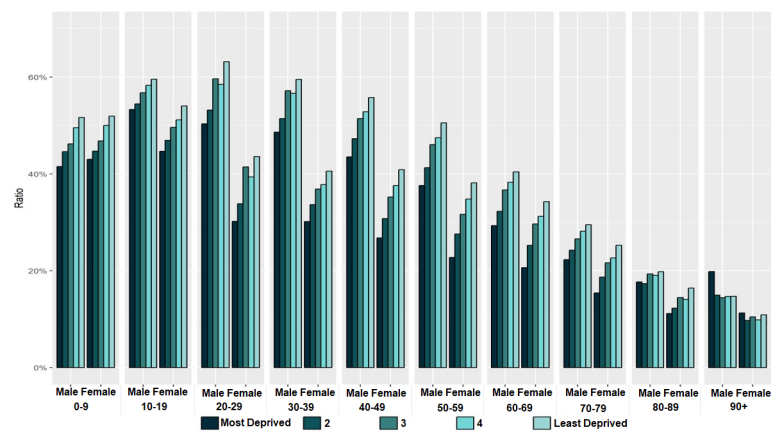


Figure S11: Desirable health indicator by age, sex, and deprivation quintiles in 2015

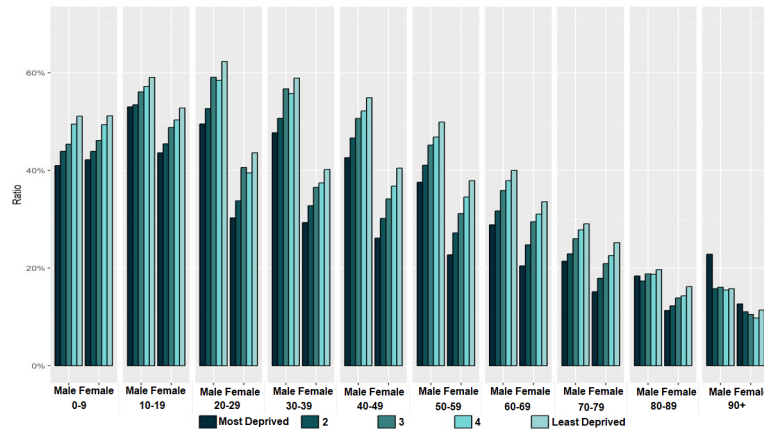


Table S12: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2021

Demographic	Description	Total population		Not met DHI total		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	N/A	2,641,320	100.0%	1,421,677	100.0%	30,727	1.16%	314,395	11.9%	472,791	17.9%	673,664	25.5%	598,366	22.7%	529,111	20.0%
Sex	Male	1,313,641	49.7%	627,093	44.1%	15,564	1.18%	139,808	10.6%	235,132	17.9%	253,206	19.3%	255,479	19.4%	192,021	14.6%
	Female	1,327,679	50.3%	794,584	55.9%	15,163	1.14%	174,587	13.1%	237,659	17.9%	420,458	31.7%	342,887	25.8%	337,090	25.4%
Age group	0-9	278,066	10.5%	112,144	7.89%	32	0.01%	22,628	8.14%	60,841	21.9%	67,915	24.4%	6,834	2.46%	870	0.31%
	10-19	291,613	11.0%	109,097	7.67%	41	0.01%	14,894	5.11%	56,458	19.4%	55,739	19.1%	12,131	4.16%	12,828	4.40%
	20-29	305,701	11.6%	151,404	10.6%	147	0.05%	27,205	8.90%	57,726	18.9%	74,489	24.4%	34,461	11.3%	61,598	20.1%
	30-39	340,674	12.9%	175,306	12.3%	371	0.11%	32,068	9.41%	57,298	16.8%	81,573	23.9%	58,286	17.1%	79,168	23.2%
	40-49	324,836	12.3%	170,806	12.0%	818	0.25%	27,135	8.35%	48,420	14.9%	73,266	22.6%	74,204	22.8%	84,631	26.1%
	50-59	378,804	14.3%	215,548	15.2%	1,982	0.52%	40,750	10.8%	55,687	14.7%	90,296	23.8%	111,110	29.3%	104,561	27.6%
	60-69	315,297	11.9%	192,506	13.5%	3,781	1.20%	47,672	15.1%	46,135	14.6%	84,937	26.9%	110,821	35.1%	80,549	25.5%
	70-79	261,579	9.90%	178,616	12.6%	7,757	2.97%	56,876	21.7%	48,023	18.4%	83,765	32.0%	110,623	42.3%	64,106	24.5%
	80-89	119,577	4.53%	94,566	6.65%	10,271	8.59%	36,511	30.5%	33,365	27.9%	48,944	40.9%	64,396	53.9%	32,931	27.5%
	90+	25,173	0.95%	21,684	1.53%	5,527	22.0%	8,656	34.4%	8,838	35.1%	12,740	50.6%	15,500	61.6%	7,869	31.3%
WIMD income quintile	1. Most deprived	552,772	20.9%	319,989	22.5%	6,360	1.15%	68,648	12.4%	116,452	21.1%	152,652	27.6%	140,420	25.4%	131,502	23.8%
	2	534,365	20.2%	301,173	21.2%	6,555	1.23%	65,415	12.2%	104,236	19.5%	143,398	26.8%	130,810	24.5%	118,310	22.1%
	3	527,896	20.0%	279,680	19.7%	6,241	1.18%	61,746	11.7%	92,364	17.5%	132,477	25.1%	118,585	22.5%	101,094	19.2%
	4	499,472	18.9%	260,074	18.3%	5,960	1.19%	59,220	11.9%	81,694	16.4%	122,769	24.6%	107,897	21.6%	90,921	18.2%
	5. Least deprived	526,815	19.9%	260,761	18.3%	5,611	1.07%	59,366	11.3%	78,045	14.8%	122,368	23.2%	100,654	19.1%	87,284	16.6%

Highest percentage across all sub-indicators for each demographic row.

Table S13: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2020

Demographic	Description	Total population		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	NA	2,638,746	100.0%	32,094	1.22%	278,146	10.5%	415,307	15.7%	653,247	24.8%	582,645	22.1%	506,052	19.2%
Sex	Male	1,315,488	49.9%	16,214	1.23%	123,817	9.41%	205,676	15.6%	246,378	18.7%	250,266	19.0%	183,904	14.0%
	Female	1,323,258	50.1%	15,880	1.20%	154,329	11.7%	209,631	15.8%	406,869	30.7%	332,379	25.1%	322,148	24.3%
Age group	0-9	281,438	10.7%	37	0.01%	18,588	6.60%	48,559	17.3%	59,682	21.2%	6,827	2.43%	836	0.30%
	10-19	289,033	11.0%	52	0.02%	12,989	4.49%	44,302	15.3%	52,381	18.1%	11,483	3.97%	12,312	4.26%
	20-29	317,908	12.0%	162	0.05%	25,230	7.94%	51,555	16.2%	70,840	22.3%	32,635	10.3%	58,435	18.4%
	30-39	337,879	12.8%	358	0.11%	28,340	8.39%	50,038	14.8%	77,443	22.9%	53,972	16.0%	74,036	21.9%
	40-49	325,193	12.3%	797	0.25%	23,762	7.31%	44,095	13.6%	71,491	22.0%	71,866	22.1%	81,633	25.1%
	50-59	376,386	14.3%	1,986	0.53%	35,839	9.52%	51,111	13.6%	89,492	23.8%	107,436	28.5%	100,084	26.6%
	60-69	310,910	11.8%	3,864	1.24%	41,506	13.3%	41,876	13.5%	84,585	27.2%	108,638	34.9%	76,588	24.6%
	70-79	255,282	9.67%	8,137	3.19%	49,912	19.6%	43,656	17.1%	84,730	33.2%	109,164	42.8%	61,507	24.1%
	80-89	119,298	4.52%	10,921	9.15%	33,733	28.3%	31,433	26.3%	49,779	41.7%	64,886	54.4%	32,601	27.3%
	90+	25,419	0.96%	5,780	22.7%	8,247	32.4%	8,682	34.2%	12,824	50.5%	15,738	61.9%	8,020	31.6%
WIMD income quintile	1. Most deprived	551,602	20.9%	6,777	1.23%	61,462	11.1%	102,918	18.7%	146,796	26.6%	136,455	24.7%	126,223	22.9%
	2	531,726	20.2%	7,044	1.32%	57,660	10.8%	91,610	17.2%	138,317	26.0%	127,531	24.0%	113,015	21.3%
	3	527,672	20.0%	6,303	1.19%	54,185	10.3%	80,577	15.3%	128,771	24.4%	115,107	21.8%	96,088	18.2%
	4	498,880	18.9%	6,048	1.21%	51,881	10.4%	71,395	14.3%	119,799	24.0%	105,237	21.1%	87,058	17.5%
	5. Least deprived	528,866	20.0%	5,922	1.12%	52,958	10.0%	68,807	13.0%	119,564	22.6%	98,315	18.6%	83,668	15.8%

Highest percentage across all sub-indicators for each demographic row.

Table S14: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2019

Demographic	Description	Total population		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	NA	2,630,961	100.0%	28,084	1.07%	393,875	15.0%	527,213	20.0%	768,888	29.2%	647,714	24.6%	517,120	19.7%
Sex	Male	1,311,065	49.8%	14,061	1.07%	176,195	13.4%	262,562	20.0%	301,643	23.0%	279,931	21.4%	189,510	14.5%
	Female	1,319,896	50.2%	14,023	1.06%	217,680	16.5%	264,651	20.1%	467,245	35.4%	367,783	27.9%	327,610	24.8%
Age group	0-9	285,875	10.9%	44	0.02%	32,542	11.4%	69,816	24.4%	89,070	31.2%	14,354	5.02%	989	0.35%
	10-19	287,148	10.9%	58	0.02%	19,800	6.90%	67,276	23.4%	66,028	23.0%	17,916	6.24%	13,570	4.73%
	20-29	320,312	12.2%	172	0.05%	35,330	11.0%	68,389	21.4%	81,798	25.5%	40,867	12.8%	61,312	19.1%
	30-39	333,835	12.7%	349	0.10%	38,512	11.5%	61,019	18.3%	85,898	25.7%	61,585	18.4%	75,000	22.5%
	40-49	329,334	12.5%	721	0.22%	35,949	10.9%	53,642	16.3%	82,004	24.9%	82,152	24.9%	85,159	25.9%
	50-59	373,185	14.2%	1,744	0.47%	52,437	14.1%	59,813	16.0%	101,468	27.2%	116,729	31.3%	100,879	27.0%
	60-69	309,649	11.8%	3,492	1.13%	59,753	19.3%	49,863	16.1%	98,999	32.0%	117,729	38.0%	77,816	25.1%
	70-79	249,542	9.48%	6,910	2.77%	67,954	27.2%	51,377	20.6%	96,054	38.5%	114,587	45.9%	62,005	24.8%
	80-89	116,983	4.45%	9,535	8.15%	42,044	35.9%	36,329	31.1%	54,172	46.3%	66,247	56.6%	32,555	27.8%
	90+	25,098	0.95%	5,059	20.2%	9,554	38.1%	9,689	38.6%	13,397	53.4%	15,548	61.9%	7,835	31.2%
WIMD income quintile	1. Most deprived	549,402	20.9%	5,892	1.07%	86,314	15.7%	128,610	23.4%	171,182	31.2%	153,719	28.0%	129,349	23.5%
	2	531,752	20.2%	6,020	1.13%	82,271	15.5%	115,431	21.7%	161,458	30.4%	141,792	26.7%	115,307	21.7%
	3	521,543	19.8%	5,608	1.08%	76,941	14.8%	102,065	19.6%	151,372	29.0%	126,652	24.3%	97,335	18.7%
	4	498,957	19.0%	5,404	1.08%	73,916	14.8%	92,085	18.5%	142,370	28.5%	116,272	23.3%	88,871	17.8%
	5. Least deprived	529,307	20.1%	5,160	0.97%	74,433	14.1%	89,022	16.8%	142,506	26.9%	109,279	20.6%	86,258	16.3%

Highest percentage across all sub-indicators for each demographic row.

Table S15: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2018

Demographic	Description	Total population		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%
Total	NA	2,604,123	100.0%	28,931	1.11%	388,083	14.9%	508,040	19.5%	784,124	30.1%	663,110	25.5%	499,205	19.2%
Sex	Male	1,298,120	49.8%	14,322	1.10%	173,541	13.4%	253,383	19.5%	309,078	23.8%	286,607	22.1%	182,414	14.1%
	Female	1,306,003	50.2%	14,609	1.12%	214,542	16.4%	254,657	19.5%	475,046	36.4%	376,503	28.8%	316,791	24.3%
Age group	0-9	286,952	11.0%	52	0.02%	30,831	10.7%	66,467	23.2%	92,476	32.2%	17,682	6.16%	1,006	0.35%
	10-19	283,403	10.9%	59	0.02%	19,827	7.00%	63,827	22.5%	67,421	23.8%	19,938	7.04%	13,133	4.63%
	20-29	322,390	12.4%	169	0.05%	35,984	11.2%	67,107	20.8%	83,915	26.0%	43,930	13.6%	57,882	18.0%
	30-39	325,803	12.5%	348	0.11%	37,700	11.6%	58,306	17.9%	85,941	26.4%	63,049	19.4%	70,518	21.6%
	40-49	332,643	12.8%	695	0.21%	36,359	10.9%	53,300	16.0%	85,585	25.7%	86,888	26.1%	84,457	25.4%
	50-59	366,204	14.1%	1,752	0.48%	51,018	13.9%	57,411	15.7%	103,124	28.2%	117,495	32.1%	96,483	26.3%
	60-69	307,676	11.8%	3,561	1.16%	59,926	19.5%	48,303	15.7%	102,165	33.2%	119,614	38.9%	76,316	24.8%
	70-79	239,991	9.22%	7,020	2.93%	65,586	27.3%	48,715	20.3%	95,513	39.8%	113,130	47.1%	59,688	24.9%
	80-89	114,293	4.39%	9,918	8.68%	41,365	36.2%	34,973	30.6%	54,529	47.7%	65,890	57.7%	31,978	28.0%
	90+	24,768	0.95%	5,357	21.6%	9,487	38.3%	9,631	38.9%	13,455	54.3%	15,494	62.6%	7,744	31.3%
WIMD income quintile	1. Most deprived	543,272	20.9%	5,986	1.10%	86,131	15.9%	124,615	22.9%	173,654	32.0%	157,875	29.1%	125,113	23.0%
	2	529,319	20.3%	6,097	1.15%	81,554	15.4%	112,572	21.3%	165,665	31.3%	145,354	27.5%	111,726	21.1%
	3	517,065	19.9%	5,836	1.13%	76,121	14.7%	97,809	18.9%	154,547	29.9%	130,428	25.2%	93,952	18.2%
	4	494,309	19.0%	5,715	1.16%	72,609	14.7%	88,073	17.8%	145,592	29.5%	118,457	24.0%	85,572	17.3%
	5. Least deprived	520,158	20.0%	5,297	1.02%	71,668	13.8%	84,971	16.3%	144,666	27.8%	110,996	21.3%	82,842	15.9%

Highest percentage across all sub-indicators for each demographic row.

Table S16: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2017

Demographic	Description	Total population		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	% total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total
Total	NA	2,607,890	100.0%	28,055	1.08%	380,837	14.6%	505,640	19.4%	806,321	30.9%	696,728	26.7%	489,889	18.8%
Sex	Male	1,300,256	49.9%	13,932	1.07%	169,260	13.0%	253,090	19.5%	317,427	24.4%	300,872	23.1%	177,560	13.7%
	Female	1,307,634	50.1%	14,123	1.08%	211,577	16.2%	252,550	19.3%	488,894	37.4%	395,856	30.3%	312,329	23.9%
Age group	0-9	288,798	11.1%	45	0.02%	31,456	10.9%	68,361	23.7%	97,718	33.8%	24,354	8.43%	964	0.33%
	10-19	284,015	10.9%	56	0.02%	19,821	6.98%	66,105	23.3%	71,462	25.2%	23,702	8.35%	12,456	4.39%
	20-29	326,410	12.5%	178	0.05%	35,635	10.9%	68,195	20.9%	87,827	26.9%	48,241	14.8%	55,241	16.9%
	30-39	321,321	12.3%	303	0.09%	36,426	11.3%	56,420	17.6%	86,981	27.1%	65,622	20.4%	67,336	21.0%
	40-49	342,733	13.1%	733	0.21%	36,499	10.6%	53,649	15.7%	90,340	26.4%	92,801	27.1%	85,705	25.0%
	50-59	363,055	13.9%	1,726	0.48%	49,571	13.7%	55,749	15.4%	104,276	28.7%	121,097	33.4%	94,224	26.0%
	60-69	313,543	12.0%	3,649	1.16%	59,169	18.9%	47,898	15.3%	105,837	33.8%	125,914	40.2%	76,882	24.5%
	70-79	230,389	8.83%	6,649	2.89%	62,470	27.1%	45,425	19.7%	94,007	40.8%	113,170	49.1%	57,288	24.9%
	80-89	112,770	4.32%	9,439	8.37%	40,156	35.6%	34,178	30.3%	54,187	48.1%	66,146	58.7%	31,774	28.2%
	90+	24,856	0.95%	5,277	21.2%	9,634	38.8%	9,660	38.9%	13,686	55.1%	15,681	63.1%	8,019	32.3%
WIMD income quintile	1. Most deprived	538,793	20.7%	5,818	1.08%	83,975	15.6%	123,338	22.9%	178,037	33.0%	165,197	30.7%	121,426	22.5%
	2	527,841	20.2%	5,966	1.13%	80,385	15.2%	112,240	21.3%	168,927	32.0%	151,755	28.8%	108,539	20.6%
	3	523,619	20.1%	5,626	1.07%	75,776	14.5%	97,971	18.7%	161,756	30.9%	138,857	26.5%	93,612	17.9%
	4	491,247	18.8%	5,552	1.13%	70,428	14.3%	86,549	17.6%	147,825	30.1%	123,692	25.2%	83,696	17.0%
	5. Least deprived	526,390	20.2%	5,093	0.97%	70,273	13.3%	85,542	16.3%	149,776	28.5%	117,227	22.3%	82,616	15.7%

Highest percentage across all sub-indicators for each demographic row.

Table S17: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2016

Demographic	Description	Total population		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	% total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total
Total	NA	2,606,129	100.0%	27,802	1.07%	385,891	14.8%	502,925	19.3%	840,057	32.2%	736,691	28.3%	479,644	18.4%
Sex	Male	1,301,051	49.9%	13,703	1.05%	171,311	13.2%	252,765	19.4%	334,311	25.7%	318,232	24.5%	173,157	13.3%
	Female	1,305,078	50.1%	14,099	1.08%	214,580	16.4%	250,160	19.2%	505,746	38.8%	418,459	32.1%	306,487	23.5%
Age group	0-9	290,126	11.1%	55	0.02%	33,115	11.4%	68,160	23.5%	104,806	36.1%	34,081	11.7%	983	0.34%
	10-19	286,665	11.0%	55	0.02%	20,477	7.14%	66,412	23.2%	74,644	26.0%	28,086	9.80%	12,049	4.20%
	20-29	330,065	12.7%	170	0.05%	36,733	11.1%	68,560	20.8%	93,529	28.3%	53,350	16.2%	53,424	16.2%
	30-39	318,004	12.2%	297	0.09%	36,230	11.4%	55,309	17.4%	90,128	28.3%	69,002	21.7%	64,466	20.3%
	40-49	350,659	13.5%	748	0.21%	38,178	10.9%	55,135	15.7%	97,061	27.7%	99,869	28.5%	85,925	24.5%
	50-59	358,777	13.8%	1,661	0.46%	49,905	13.9%	54,947	15.3%	107,477	30.0%	125,552	35.0%	91,954	25.6%
	60-69	315,099	12.1%	3,727	1.18%	60,765	19.3%	47,782	15.2%	111,678	35.4%	131,649	41.8%	76,191	24.2%
	70-79	221,111	8.48%	6,429	2.91%	60,828	27.5%	43,618	19.7%	93,017	42.1%	113,162	51.2%	54,969	24.9%
	80-89	111,099	4.26%	9,417	8.48%	39,924	35.9%	33,298	30.0%	54,156	48.7%	66,302	59.7%	31,631	28.5%
	90+	24,524	0.94%	5,243	21.4%	9,736	39.7%	9,704	39.6%	13,561	55.3%	15,638	63.8%	8,052	32.8%
WIMD income quintile	1. Most deprived	540,960	20.8%	5,721	1.06%	85,884	15.9%	123,550	22.8%	186,480	34.5%	175,771	32.5%	118,930	22.0%
	2	528,139	20.3%	6,110	1.16%	81,464	15.4%	112,159	21.2%	175,838	33.3%	160,266	30.3%	106,181	20.1%
	3	521,851	20.0%	5,633	1.08%	76,166	14.6%	96,090	18.4%	167,395	32.1%	145,656	27.9%	91,505	17.5%
	4	485,331	18.6%	5,227	1.08%	70,797	14.6%	85,074	17.5%	153,042	31.5%	129,747	26.7%	81,640	16.8%
	5. Least deprived	529,848	20.3%	5,111	0.96%	71,580	13.5%	86,052	16.2%	157,302	29.7%	125,251	23.6%	81,388	15.4%

Highest percentage across all sub-indicators for each demographic row.

Table S18: Number and percentage of the population not meeting the DHI by sub-indicator, age, sex, and deprivation in 2015

Demographic	Description	Total population		Died		Hospital admission		Emergency department		Drugs used in infections		Analgesics		Mental health prescriptions	
		N	% total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total	N	% of total
Total	NA	2,577,081	100.0%	27,395	1.06%	375,204	14.6%	488,668	19.0%	847,648	32.9%	761,528	29.6%	463,998	18.0%
Sex	Male	1,286,221	49.9%	13,220	1.03%	166,164	12.9%	247,524	19.2%	337,812	26.3%	329,380	25.6%	166,902	13.0%
	Female	1,290,860	50.1%	14,175	1.10%	209,040	16.2%	241,144	18.7%	509,836	39.5%	432,148	33.5%	297,096	23.0%
Age group	0-9	286,542	11.1%	55	0.02%	30,334	10.6%	65,070	22.7%	105,570	36.8%	41,928	14.6%	937	0.33%
	10-19	286,462	11.1%	60	0.02%	20,072	7.01%	66,310	23.1%	77,143	26.9%	32,551	11.4%	11,670	4.07%
	20-29	329,242	12.8%	179	0.05%	36,726	11.2%	68,693	20.9%	94,366	28.7%	57,940	17.6%	50,842	15.4%
	30-39	310,650	12.1%	319	0.10%	35,180	11.3%	53,712	17.3%	89,889	28.9%	71,327	23.0%	61,563	19.8%
	40-49	355,634	13.8%	689	0.19%	38,790	10.9%	55,056	15.5%	101,629	28.6%	105,869	29.8%	85,226	24.0%
	50-59	348,088	13.5%	1,587	0.46%	48,277	13.9%	51,899	14.9%	107,075	30.8%	125,366	36.0%	87,373	25.1%
	60-69	311,183	12.1%	3,592	1.15%	59,585	19.1%	45,193	14.5%	112,207	36.1%	132,335	42.5%	74,041	23.8%
	70-79	216,021	8.38%	6,470	3.00%	58,568	27.1%	41,566	19.2%	92,429	42.8%	113,050	52.3%	53,409	24.7%
	80-89	109,223	4.24%	9,368	8.58%	38,498	35.2%	32,081	29.4%	54,214	49.6%	65,868	60.3%	31,028	28.4%
	90+	24,036	0.93%	5,076	21.1%	9,174	38.2%	9,088	37.8%	13,126	54.6%	15,294	63.6%	7,909	32.9%
WIMD income quintile	1. Most deprived	530,392	20.6%	5,624	1.06%	82,341	15.5%	119,719	22.6%	185,905	35.1%	180,435	34.0%	114,229	21.5%
	2	521,306	20.2%	5,910	1.13%	78,810	15.1%	109,066	20.9%	178,161	34.2%	165,839	31.8%	102,751	19.7%
	3	517,144	20.1%	5,556	1.07%	75,356	14.6%	93,554	18.1%	169,552	32.8%	151,289	29.3%	88,717	17.2%
	4	481,146	18.7%	5,340	1.11%	69,259	14.4%	82,897	17.2%	154,104	32.0%	133,723	27.8%	79,109	16.4%
	5. Least deprived	527,093	20.5%	4,965	0.94%	69,438	13.2%	83,432	15.8%	159,926	30.3%	130,242	24.7%	79,192	15.0%

Highest percentage across all sub-indicators for each demographic row.

Figure S19: Distribution of the population per sub-indicator presence by age, sex, and deprivation quintiles in 2021

