Suppl. Table 1. Datasets used in this study.

Database	Description	Coverage
Welsh Demographic Service	An administrative register of all individuals in Wales that use NHS services, containing anonymised demographics and GP practice registration history with anonymised residential data	Wales
General Practice Database	Primary care records with diagnoses, symptoms, investigations, prescribed medication, referrals, coded hospital contacts, and test results coded using Read Codes v2	77% (333/432) of all general practices in Wales
Patient Episode Database for Wales	Clinical information (specialty and diagnoses) of all NHS Wales hospital admissions (inpatient and day cases) – diagnostic information coded using ICD-10 codes.	Wales
Office for National Statistics – Deaths	Death register of all deaths and causes in Wales, coded using International Classification of Diseases (ICD), version 10 codes, derived from information collected at registration of death.	Wales

Suppl. Table 1. Sociodemographics and responses to the emergency department (ED) mental health assessment for the ED dataset ascertained during the suicide cluster (DC) or one year before suicide cluster (BC) period.

		1 year before suicide cluster (BC) (*n* = 43)			During suicide cluster (DC) (*n* = 86)		
Characteristics	Category	Person count	%	95% CI	Person count	%	95% CI
Sex	Male	15	34.9	21.5 , 51.0	32	37.2	27.2 , 48.4
	Female	28	65.1	49.0 , 78.5	54	62.8	51.6 , 72.8
Age (years)	0-14	<5	<5.0	0.0 , <15.0	<5	<5.0	0.0 , <10.0
	15-34	26	60.5	44.5 , 74.6	56	65.1	54.0 , 74.9
	35-54	13	30.2	17.7 , 46.3	23	26.7	18.0 , 37.6
	≥ 55	<5	<10.0	0.0 , <25.0	<10	<10.0	0.0 , <15.0
WIMD[a] quintile	Q1	<5	<10.0	0.0 , <25.0	8	9.3	4.4 , 18.0
&	Q2	9	20.9	10.6 , 36.5	13	15.1	8.6 , 24.8
urban/rural indicator	Q3	<5	<10.0	0.0 , <25.0	5	5.8	2.2 , 13.7
	Q4	12	27.9	15.8 , 43.9	15	17.4	10.4 , 27.5
	Q5 (most deprived)	14	32.6	19.5 , 48.7	39	45.3	34.7 , 56.4
	Urban	32	74.4	58.5 , 86.0	51	59.3	48.2 , 69.6
	Rural	<15	<25.0	0.0 , <40.0	29	33.7	24.1 , 44.8
	Unknown LSOA[b]	<5	<5.0	0.0 , <15.0	6	7.0	2.9 , 15.1
Marital status	Single	21	48.8	33.6 , 64.3	35	40.7	30.4 , 51.8
	Separated/Divorced/Widowed	<10	<15.0	0.0 , <30.0	16	18.6	11.3 , 28.8
	Partnered/Married	14	32.6	19.5 , 48.7	26	30.2	21.0 , 41.2
	Unknown	<5	<5.0	0.0 , <20.0	9	10.5	5.2 , 19.4
Household status	Lives alone	12	27.9	15.8 , 43.9	12	14.0	7.7 , 23.5
	With lone parent	<5	<5.0	0.0 , <15.0	7	8.1	3.6 , 16.6
	With parents	11	25.6	14.0 , 41.5	24	27.9	19.0 , 38.8
	With partner/spouse	12	27.9	15.8 , 43.9	24	27.9	19.0 , 38.8
	With friends/relatives	<5	<5.0	0.0 , <20.0	9	10.5	5.2 , 19.4
	Others[c] & unknown	5	11.6	4.4 , 25.9	10	11.6	6.0 , 20.8
Reason for visit	Self-harm with suicidal intent	15	34.9	21.5 , 51.0	28	32.6	23.1 , 43.6
	Non-suicidal self-harm	13	30.2	17.7 , 46.3	30	34.9	25.1 , 46.0
	Self-harm with suicidal intent	15	34.9	21.5 , 51.0	27	31.4	22.1 , 42.4
	Others[c]	0	0.0	0.0 , 0.0	<5	<5.0	0.0 , <10.0
	Unknown	0	0.0	0.0 , 0.0	<5	<5.0	0.0 , <10.0
Suicidal intent & future suicidal ideation risk[e]	Suicidal intent	17	39.5	25.4 , 55.2	32	37.2	27.2 , 48.4
	Future suicidal ideation risk	11	25.6	14.0 , 41.5	15	17.4	10.4 , 27.5
SAD score	Consider discharge (0-5)	25	58.1	42.2 , 72.6	64	74.4	63.7 , 82.9
	Refer to psychiatric consultation (6-8)	12	27.9	15.8 , 43.9	14	16.3	9.5 , 26.1
	Likely require hospital admission (> 8)	<10	<15.0	0.0 , <30.0	8	9.3	4.4 , 18.0
	Unknown	<5	<5.0	0.0 , <15.0	0	0.0	0.0 , 0.0

General footnote: Data are masked to avoid disclosure of small counts (<5) or secondary disclosure of counts in other categories containing small counts

[a] Welsh Index of Multiple Deprivation

[b] Lower Super Output Area

[c] Others include live in care home/safe house/foster care/hostel/supported housing/women's refuge, and homeless

[d] Others include heroin overdose without suicidal intent, acute delirium, depression and anxiety (without suicidal intent), and violence/aggression/erratic behaviour/intoxication

[e] Column percentages may not add up to 100% for non-mutually exclusive groups

Suppl. Table 2. Summary of Fisher's exact tests, likelihood ratio tests and Bayes factor for comparing sample characteristics for the ED dataset in Suppl. Table 1.

	Tests of association (*p*-value)		Bayes factor	
Characteristics	Fisher's exact test	Likelihood ratio test	Range[a]	Evidence category[b]
Sex	0.848	0.796	0.152 - 0.400	-[c]
Age	0.918	0.963	0.011 - 0.062	-[c]
WIMD[d] quintile	0.427	0.397	0.044 - 0.290	-[c]
Urban/rural indicator	0.249	0.183	0.178 - 0.461	-[c]
Marital status	0.619	0.549	0.053 - 0.206	-[c]
Household status	0.380	0.307	0.041 - 0.470	-[c]
Reason for visit	0.928	0.764	0.014 - 0.049	-[c]
Method of self-harm	0.623	0.294	0.016 - 0.173	-[c]
Suicidal intent	0.849	0.798	0.155 - 0.406	-[c]
Future suicidal ideation risk	0.352	0.284	0.338 - 0.593	-[c]
SAD score	0.128	0.150	0.071 - 0.623	-[c]

[a] Ranges are given based of estimations corresponding to the Poisson, joint multinomial, independent multinomial and hypergeometric sampling schemes
[b] Evidence in favor of the alternative hypothesis (dependence of variables) unless otherwise noted
[c] Bayes factor <1, evidence in favor of the null hypothesis (independence of variables)
[d] Welsh Index of Multiple Deprivation

Suppl. Table 3. Self-harm and clinical characteristics of ED dataset ascertained during the suicide cluster (DC) or one year before suicide cluster (BC) period.

			1 year before suicide cluster (BC) (*n* = 43)			During suicide cluster (DC) (*n* = 86)		
Characteristics		Category	Person count	%	95% CI	Person count	%	95% CI
Self-harm during ascertainment period		Primary care	22	51.2	35.7 , 66.4	46	53.5	42.5 , 64.2
		Secondary care	**14**	**32.6**	**19.5 , 48.7**	**6**	**7.0**	**2.9 , 15.1**
		ED mental health assessment only	15	34.9	21.5 , 51.0	35	40.7	30.4 , 51.8
Self-harm method during ascertainment period[a]		Overdose/Poisoning	38	88.4	74.1 , 95.6	68	79.1	68.7 , 86.8
		Hanging/Strangling	<5	<5.0	0.0 , <15.0	<5	<5.0	0.0 , <15.0
		Cutting	8	18.6	8.9 , 33.9	14	16.3	9.5 , 26.1
		Others/Unknown	12	27.9	15.8 , 43.9	26	30.2	21.0 , 41.2
Charlson comorbidityindex during history period[d]		0	30	69.8	53.7 , 82.3	63	73.3	62.4 , 82.0
		≥ 1	13	30.2	17.7 , 46.3	23	26.7	18.0 , 37.6
History of	Conditions[b]	Self-harm	29	67.4	51.3 , 80.5	50	58.1	47.0 , 68.5
		All mental health	31	72.1	56.1 , 84.2	57	66.3	55.2 , 75.9
		Common mental disorders	28	65.1	49.0 , 78.5	50	58.1	47.0 , 68.5
		Severe mental illness	<5	<5.0	0.0 , <20.0	9	10.5	5.2 , 19.4
		Alcohol misuse	9	20.9	10.6 , 36.5	25	29.1	20.0 , 40.0
		Drug misuse	6	14.0	5.8 , 28.6	17	19.8	12.3 , 30.0
	Prescriptions[c]	Psychotropic medications	28	65.1	49.0 , 78.5	52	60.5	49.3 , 70.7
		Opiate medications	21	48.8	33.6 , 64.3	34	39.5	29.3 , 50.7

General note:

1. Column percentages may not add up to 100% since some subgroups are non-mutually exclusive
2. Data are masked to avoid disclosure of small counts (<5) or secondary disclosure of counts in other categories containing small counts

[a] Data sourced from primary, secondary care, and ED mental health assessment data

[b] Data sourced from primary and secondary care data

[c] Data sourced from primary care data only

Suppl. Table 4. Summary of Fisher's exact tests, likelihood ratio tests and Bayes factor for comparing self-harm characteristics for the ED dataset in Suppl. Table 3.

		Tests of association (*p*-value)		Bayes factor	
Characteristics		Fisher's exact test	Likelihood ratio test	Range[a]	Evidence category[b]
Self-harm during ascertainment period	Primary care	0.853	0.803	0.156 - 0.413	-[c]
	Secondary care	**<0.001**	**<0.001**	130.506 - 229.388	Extreme
	ED mental health assessment only	0.569	0.521	0.181 - 0.476	-[c]
Self-harm method during ascertainment period	Overdose/Poisoning	0.230	0.180	0.388 - 0.682	-[c]
	Hanging/Strangling	>0.999	0.713	0.085 - 0.516	-[c]
	Cutting	0.805	0.742	0.186 - 0.327	-[c]
	Others/Unknown	0.840	0.784	0.163 - 0.379	-[c]
	CCI[d] during history period	0.682	0.678	0.181 - 0.399	-[c]
History of	Self-harm	0.342	0.304	0.248 - 0.650	-[c]
	All mental health	0.552	0.501	0.184 - 0.461	-[c]
	Common mental disorders	0.567	0.443	0.198 - 0.521	-[c]
	Severe mehtal illness	0.334	0.242	0.218 - 0.583	-[c]
	Alcohol misuse	0.399	0.316	0.269 - 0.561	-[c]
	Drug misuse	0.474	0.408	0.235 - 0.413	-[c]
	Psychotropic medications	0.702	0.607	0.168 - 0.442	-[c]
	Opiate medications	0.349	0.315	0.252 - 0.661	-[c]

[a] Ranges are given based of estimations corresponding to the Poisson, joint multinomial, independent multinomial and hypergeometric sample schemes
[b] Evidence in favor of the alternative hypothesis (dependence of variables) unless otherwise noted
[c] Bayes factor <1, evidence in favor of the null hypothesis (independence of variables)
[d] Charlson comorbidity index

Suppl. Table 5. Sociodemographics of the enhanced dataset (from ED and SAIL) ascertained during the suicide cluster (DC) or one year before suicide cluster (BC) period.

		1 year before suicide cluster (BC) (*n* = 209)			During suicide cluster (DC) (*n* = 280)		
Characteristics	Category	Person count	%	95% CI	Person count	%	95% CI
Sex	Male	83	39.7	33.1 , 46.7	112	40.0	34.3 , 46.0
	Female	126	60.3	53.3 , 66.9	168	60.0	54.0 , 65.7
Age (years)	0-14	13	6.2	3.5 , 10.6	25	8.9	6.0 , 13.1
	15-34	131	62.7	55.7 , 69.2	164	58.6	52.5 , 64.4
	35-54	53	25.4	19.7 , 31.9	67	23.9	19.1 , 29.4
	≥ 55	12	5.7	3.1 , 10.1	24	8.6	5.7 , 12.6
WIMD[a] quintile	Q1	<20	<10.0	0.0 , <15.0	20	7.1	4.5 , 11.0
&	Q2	38	18.2	13.3 , 24.2	55	19.6	15.3 , 24.9
urban/rural indicator	Q3	21	10.0	6.5 , 15.1	25	8.9	6.0 , 13.1
	Q4	51	24.4	18.9 , 30.9	67	23.9	19.1 , 29.4
	Q5 (most deprived)	81	38.8	32.2 , 45.7	107	38.2	32.4 , 44.2
	Urban	152	72.7	66.1 , 78.5	183	65.4	59.4 , 70.9
	Rural	<60	<30.0	0.0 , <35.0	91	32.5	27.1 , 38.4
	Unknown LSOA[b]	<5	<5.0	0.0 , <5.0	6	2.1	0.9 , 4.8

General footnote: Data are masked to avoid disclosure of small counts (<5) or secondary disclosure of counts in other categories containing small counts

[a] Welsh Index of Multiple Deprivation

[b] Lower Super Output Area

Suppl. Table 6. Summary of Fisher's exact tests, likelihood ratio tests and Bayes factor for comparing sociodemographic characteristics for the enhanced dataset in Suppl. Table 5.

	Tests of association (*p*-value)		Bayes factor	
Characteristics	Fisher's exact test	Likelihood ratio test	Range[a]	Evidence category[b]
Sex	>0.999	0.949	0.069 - 0.218	-[c]
Age (years)	0.425	0.404	0.008 - 0.040	-[c]
WIMD[d] quintile	0.765	0.682	0.000 - 0.004	-[c]
Urban/rural indicator	0.112	0.086	0.049 - 0.444	-[c]

[a] Ranges are given based of estimations corresponding to the Poisson, joint multinomial, independent multinomial and hypergeometric sample schemes

[b] Evidence in favor of the alternative hypothesis (dependence of variables) unless otherwise noted

[c] Bayes factor <1, evidence in favor of the null hypothesis (independence of variables)

[d] Welsh index of multiple deprivation

Suppl. Table 7. Self-harm and clinical outcomes of the enhanced dataset (from ED and SAIL) ascertained during the suicide cluster (DC) or one year before suicide cluster (BC) period.

			1 year before suicide cluster (BC) (*n* = 209)			During suicide cluster (DC) (*n* = 280)		
Characteristics		Category	Person count	%	95% CI	Person count	%	95% CI
Self-harm during ascertainment period		Primary care	175	83.7	77.9 , 88.3	225	80.4	75.1 , 84.7
		Secondary care	**71**	**34.0**	**27.7 , 40.9**	**56**	**20.0**	**15.6 , 25.3**
		ED mental health assessment only[a]	15	7.2	4.2 , 11.8	35	12.5	9.0 , 17.1
Self-harm method during ascertainment period[b]		Overdose/Poisoning	**159**	**76.1**	**69.6 , 81.6**	**186**	**66.4**	**60.5 , 71.9**
		Hanging/Strangling	<5	<2.0	0.0 , <5.0	12	4.3	2.3 , 7.6
		Cutting	19	9.1	5.7 , 14.0	25	8.9	6.0 , 13.1
		Others/Unknown	76	36.4	29.9 , 43.3	125	44.6	38.8 , 50.7
Charlson comorbidity index during history period[d]		0	150	71.8	65.1 , 77.7	194	69.3	63.5 , 74.6
		≥ 1	59	28.2	22.3 , 34.9	86	30.7	25.4 , 36.5
History of	Conditions[c]	Self-harm[b]	100	47.8	40.9 , 54.8	131	46.8	40.8 , 52.8
		All mental health	**155**	**74.2**	**67.6 , 79.8**	**177**	**63.2**	**57.2 , 68.8**
		Common mental disorders	123	58.9	51.8 , 65.5	154	55.0	49.0 , 60.9
		Severe mental illness	18	8.6	5.3 , 13.5	35	12.5	9.0 , 17.1
		Alcohol misuse	56	26.8	21.0 , 33.4	80	28.6	23.4 , 34.3
		Drug misuse	40	19.1	14.2 , 25.3	56	20.0	15.6 , 25.3
	Prescriptions[d]	Psychotropic medications	126	60.3	53.3 , 66.9	159	56.8	50.8 , 62.6
		Opiate medications	86	41.1	34.5 , 48.2	117	41.8	36.0 , 47.8
Outcomes during 10-year follow-up	Self-harm	Self-harm	123	58.9	51.8 , 65.5	157	56.1	50.0 , 61.9
	Mortality	All-cause	**14**	**6.7**	**3.9 , 11.2**	**34**	**12.1**	**8.7 , 16.7**
		Natural cause	8	3.8	1.8 , 7.7	22	7.9	5.1 , 11.8
		Unnatural cause	6	2.9	1.2 , 6.4	<15	<5.0	0.0 , <10.0
		Suicide	5	2.4	0.9 , 5.8	<5	<5.0	0.0 , <5.0
		Mean age of death	48.2	-	37.6 , 58.8	51.2	-	44.0 , 58.4

General note:

1. Column percentages may not add up to 100% since some subgroups are non-mutually exclusive
2. Data are masked to avoid disclosure of small counts (<5) or secondary disclosure of counts in other categories containing small counts

[a] Extracted from the ED dataset

[b] Data sourced from primary, secondary care, and ED mental health assessment

[c] Data for all conditions (except self-harm) sourced from primary and secondary care data

[d] Data sourced from primary care data only

Suppl. Table 8. Summary of Fisher's exact tests, likelihood ratio tests and Bayes factor for comparing self-harm and clinical outcomes of the enhanced dataset in Suppl. Table 7.

		Tests of association (*p*-value)		Bayes factor	
Characteristics		Fisher's exact test	Likelihood ratio test	Range[a]	Evidence category[b]
Self-harm during ascertainment period	Primary care	0.347	0.337	0.138 - 0.269	-[c]
	Secondary care	**0.001**	**0.001**	38.526 - 79.859	Very strong
	ED mental health assessment only	0.070	0.051	0.436 - 1.147	-[c]
Self-harm method during ascertainment period	Overdose/Poisoning	**0.021**	**0.020**	13.546 - 28.456	Strong
	Hanging/Strangling	0.109	0.059	0.195 - 1.515	-[c]
	Cutting	>0.999	0.951	0.066 - 0.193	-[c]
	Others/Unknown	0.077	0.065	0.362 - 1.185	-[c]
	CCI[b] during history period	0.617	0.551	0.102 - 0.242	-[c]
History of	Self-harm	0.855	0.816	0.067 - 0.228	-[c]
	All mental health	**0.011**	**0.010**	23.851 - 60.579	Strong/Very strong
	Common mental disorders	0.408	0.395	0.093 - 0.316	-[c]
	Severe mental illness	0.188	0.167	0.178 - 0.444	-[c]
	Alcohol misuse	0.684	0.664	0.098 - 0.218	-[c]
	Drug misuse	0.908	0.812	0.093 - 0.181	-[c]
	Psychotropic medications	0.459	0.437	0.089 - 0.296	-[c]
	Opiate medications	0.926	0.887	0.067 - 0.221	-[c]
Outcomes during 10-year follow-up	Self-harm	0.580	0.538	0.078 - 0.265	-[c]
	All-cause mortality	**0.047**	**0.041**	3.879 - 11.456	Moderate/Strong
	Natural cause mortality	0.086	0.060	0.292 - 1.207	-[c]
	Unnatural cause mortality	0.799	0.665	0.044 - 0.325	-[c]
	Suicide mortality	0.506	0.436	0.043 - 0.525	-[c]
	Mean age of death		0.663[d]	0.188-0.336[e]	-[c]

[a] Ranges are given based of estimations corresponding to the Poisson, joint multinomial, independent multinomial and hypergeometric sample schemes
[b] Charlson comorbidity index
[c] Bayes factor <1, evidence in favor of the null hypothesis (independence of variables or no differences in group means)
[d] Based of p-values from independent sample *t* test
[e] Based on Bayes factors for independent sample *t* test using prior Cauchy distribution with scale parameter of $\sqrt{2}/2$, 1, and $\sqrt{2}$

Suppl. Table 9. Number of individuals in groups stratified by sex and age for the ED and enhanced dataset.

		ED dataset						Enhanced dataset					
		1 year before suicide cluster (BC) (*n* = 43)			During suicide cluster (DC) (*n* = 86)			1 year before suicide cluster (BC) (*n* = 209)			During suicide cluster (DC) (*n* = 280)		
Age group	Sex	Person count	%	95% CI	Person count	%	95% CI	Person count	%	95% CI	Person count	%	95% CI
≤ 34 years		27	62.8	46.7 , 76.6	58	67.4	56.4 , 76.9	144	68.9	62.1 , 75.0	189	67.5	61.6 , 72.9
	Male	11	40.7	23.0 , 61.0	21	36.2	24.3 , 49.9	59	41.0	32.9 , 49.5	71	37.6	30.7 , 44.9
	Female	16	59.3	39.0 , 77.0	37	63.8	50.1 , 75.7	85	59.0	50.5 , 67.1	118	62.4	55.1 , 69.3
> 34 years		16	37.2	23.4 , 53.3	28	32.6	23.1 , 43.6	65	31.1	25.0 , 37.9	91	32.5	27.1 , 38.4
	Male	<5	<30.0	0.0 , <55.0	11	39.3	22.1 , 59.3	24	36.9	25.6 , 49.8	41	45.1	34.7 , 55.8
	Female	<15	<80.0	0.0 , <95.0	17	60.7	40.7 , 77.9	41	63.1	50.2 , 74.4	50	54.9	44.2 , 65.3
Homogeneity of ORs[a]				$\chi^2(1) = 1.04$, $p = 0.308$						$\chi^2(1) = 1.43$, $p = 0.232$			
Ratio of ORs (ROR)[b]				ROR = 0.5 (0.1 - 2.2), $p = 0.329$						ROR = 0.6 (0.9 - 1.7), $p = 0.236$			

[a] Based on the Breslow-Day test adjusted by Tarone (1985); ORs: odds ratios

[b] Estimates (95% CIs and p-values) of the sex-by-age group interaction from Firth logistic regression of the likelihood of being in BC or DC group with sex, age-group and the interaction as predictors

Suppl. Table 10. Summary odd ratios (ORs) from conventional and Firth logistic regression models of all-cause mortality outcome during the 10-year follow-up for the enhanced dataset.

			Model 1[b]						Model 2[c]					
			Firth logistic regression			Logistic regression			Firth logistic regression			Logistic regression		
Variable	Reference group	Level	OR	95% CI	*p*-value	OR	95% CI	*p*-value	OR	95% CI	*p*-value	OR	95% CI	*p*-value
Group[a]-Sex	BC-Male	BC-Female	1.17	0.39 , 3.58	0.777	1.22	0.38 , 3.91	0.736	1.41	0.45 , 4.47	0.555	1.50	0.44 , 5.08	0.513
		DC-Male	**3.90**	**1.39 , 10.92**	**0.010**	**4.32**	**1.47 , 12.65**	**0.008**	**3.85**	**1.34 , 11.05**	**0.012**	**4.48**	**1.46 , 13.73**	**0.009**
		DC-Female	1.13	0.39 , 3.32	0.823	1.19	0.39 , 3.65	0.766	1.30	0.43 , 3.99	0.641	1.40	0.43 , 4.55	0.581
Age	≤ 34 years	> 34 years	**4.41**	**2.32 , 8.40**	**<0.001**	**4.65**	**2.41 , 9.00**	**<0.001**	**4.07**	**1.96 , 8.48**	**<0.001**	**4.54**	**2.11 , 9.78**	**<0.001**
WIMD[d] quintile	Q1	Q2	0.67	0.16 , 2.80	0.586	0.71	0.16 , 3.22	0.656	0.65	0.16 , 2.72	0.559	0.68	0.15 , 3.19	0.627
(Q5: most deprived)		Q3	2.34	0.56 , 9.70	0.242	2.59	0.57 , 11.75	0.217	1.99	0.47 , 8.32	0.347	2.27	0.48 , 10.65	0.299
		Q4	1.43	0.38 , 5.34	0.596	1.59	0.39 , 6.46	0.516	1.14	0.30 , 4.26	0.846	1.28	0.31 , 5.32	0.737
		Q5	1.01	0.29 , 3.55	0.986	1.12	0.30 , 4.28	0.864	0.83	0.23 , 2.91	0.765	0.91	0.23 , 3.56	0.893
Urban/Rural indicator	Rural	Urban	1.55	0.74 , 3.25	0.250	1.61	0.75 , 3.46	0.222	1.53	0.71 , 3.33	0.281	1.62	0.72 , 3.64	0.244
CCI[e] during history period	CCI = 0	≥ 1							1.90	0.98 , 3.70	0.058	2.00	1.00 , 4.00	0.050
History of conditions	absence of event	Self-harm							0.86	0.41 , 1.79	0.679	0.84	0.39 , 1.82	0.666
		All mental health							1.74	0.63 , 4.79	0.282	1.80	0.62 , 5.18	0.279
		CMD							0.57	0.22 , 1.52	0.265	0.57	0.21 , 1.56	0.273
		SMI							0.80	0.30 , 2.13	0.653	0.76	0.27 , 2.14	0.604
		Alcohol misuse							1.82	0.84 , 3.94	0.127	1.90	0.85 , 4.26	0.118
		Drug misuse							1.35	0.60 , 3.04	0.467	1.36	0.58 , 3.17	0.479
History of medications	absence of event	Psychotropic medications							0.80	0.30 , 2.15	0.660	0.78	0.28 , 2.19	0.637
		Opiate medications							1.34	0.63 , 2.85	0.439	1.37	0.63 , 3.00	0.426

[a] BC: 1 year before suicide cluster; DC: during suicide cluster
[b] Model adjusted for demographic variables: group-sex, age, WIMD quintile, and urban/rural indicator
[c] Variables in Model 1 and further adjusted for WIMD quintile, urban/rural indicator, CCI during history, history of self-harm, all mental health, CMD, SMI, alcohol and drug misuse, psychotropic and opiate medications
[d] Welsh Index of Multiple Deprivation
[e] Charlson comorbidity index

Suppl. Table 11. Summary of multiple pairwise comparisons of all-cause mortality outcome during the 10-year follow-up among four sex-stratified DC and BC groups from the regression models of for the enhanced dataset.

		Firth logistic regression				Logistic regression			
Model	Comparison test	χ^2	df[a]	*p*-value	Adjusted *p*-value[b]	χ^2	df[a]	*p*-value	Adjusted *p*-value[b]
Model 1[c]	DC[d]-Male vs. BC[d]-Male	**6.72**	**1**	**0.010**	**0.010**	**7.10**	**1**	**0.008**	**0.008**
	DC-Male vs. BC-Female	**7.69**	**1**	**0.006**	**0.011**	**8.00**	**1**	**0.005**	**0.009**
	DC-Male vs. DC-Female	**9.06**	**1**	**0.003**	**0.009**	**9.33**	**1**	**0.002**	**0.007**
	Omnibus test	**13.93**	**3**	**0.003**	-	**14.59**	**3**	**0.002**	-
Model 2[e]	DC-Male vs. BC-Male	**6.28**	**1**	**0.012**	**0.024**	**6.90**	**1**	**0.009**	**0.026**
	DC-Male vs. BC-Female	**5.12**	**1**	**0.024**	**0.024**	**5.55**	**1**	**0.018**	**0.018**
	DC-Male vs. DC-Female	**6.46**	**1**	**0.011**	**0.033**	**6.86**	**1**	**0.009**	**0.018**
	Omnibus test	**10.75**	**3**	**0.013**	-	**11.63**	**3**	**0.009**	-

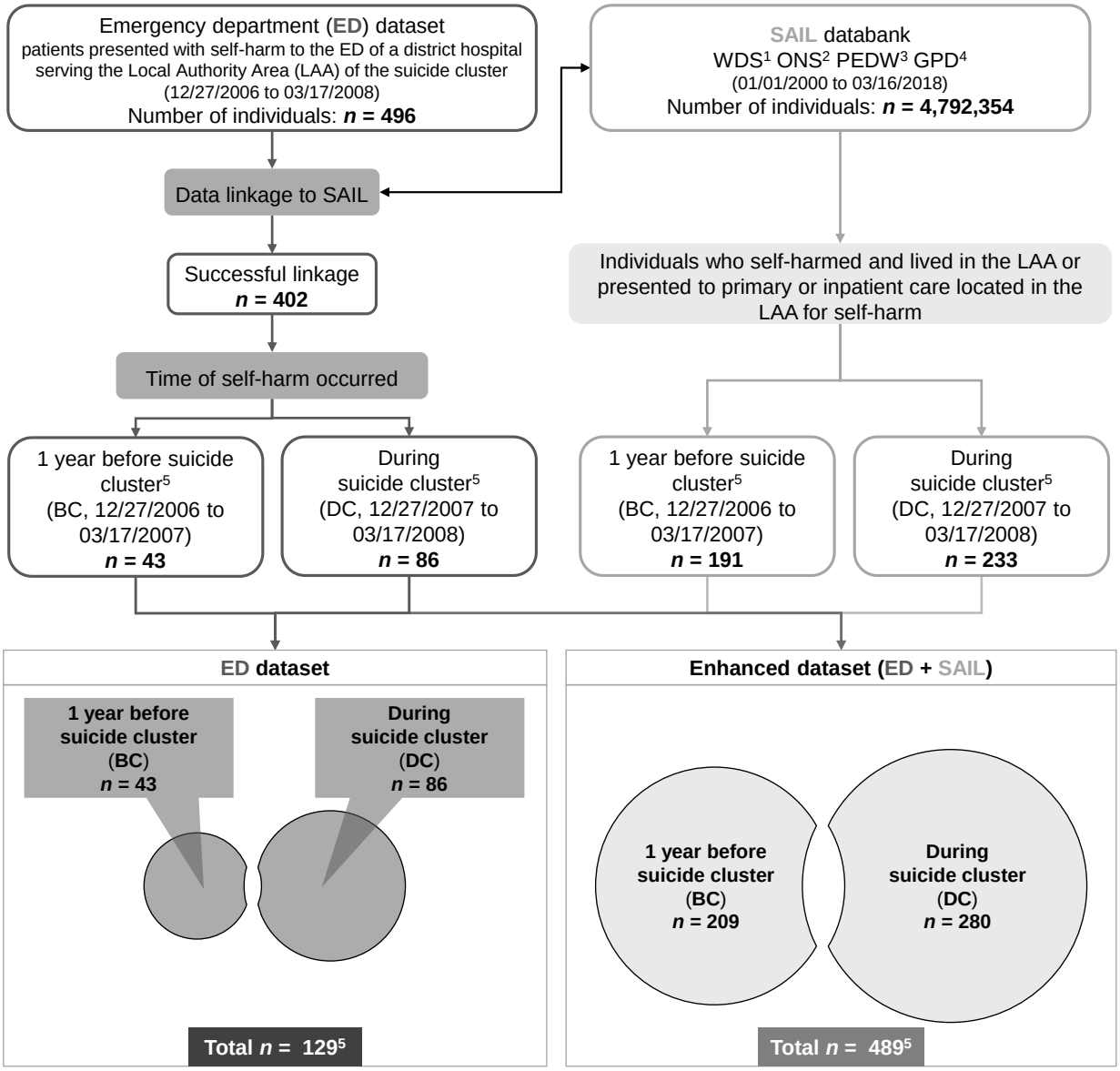
[a] Degree of freedom

[b] *p*-value adjusted for multiple comparison by Holm method

[c] Model adjusted for demographic variables: group-sex, age, WIMD quintile, and urban/rural indicator

[d] DC: during suicide cluster; BC: 1 year before suicide cluster

[e] Variables in Model 1 and further adjusted for quintile of Welsh Index of Multiple Deprivation, urban/rural indicator, Charlson Comorbidity Index during history, history of self-harm, all mental health, common mental disorders, severe mental illness, alcohol, and drug misuse, psychotropic and opiate medications



[1] Welsh Demographic Service (demographics and practice registration history)
[2] The Office of National Statistics deaths register
[3] Patient Episode Database for Wales (secondary care)
[4] General Practice Database (Primary care)
[5] Data for Individuals ascertained in both periods (BC and DC) were not analysed in the ED ($n < 5$) nor the Enhanced dataset ($n = 17$)

Suppl. Fig. 1. Study flow diagram.