

Scotland's mental health: Children and young people 2013

Briefing paper
NHS Health Scotland



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NHS Health Scotland is a WHO Collaborating Centre for Health Promotion and Public Health Development.

1. Introduction

Background

Improving mental health is a national priority in Scotland. *Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009–2011 (TAMFS)*¹ committed NHS Health Scotland to work with key stakeholders to develop a set of national indicators to monitor trends in children and young people's (C&YP) mental health and associated contextual factors. The importance of the indicators was highlighted in the latest mental health policy in Scotland: *Mental Health Strategy for Scotland: 2012–2015*.²

This briefing paper summarises the key findings from the first data report in the C&YP series, which aims to provide a comprehensive and up-to-date description of C&YP's mental health in Scotland, covering mental health outcomes and the contextual factors associated with it and to highlight inequalities in these.

The indicator set

The C&YP's mental health indicator set was finalised in November 2011.³ For further information see www.healthscotland.com/scotlands-health/population/mental-health-indicators/children.aspx. The set comprises 108 indicators (15 covering mental health outcomes and 93 the contextual factors), plus a cross-cutting equalities analysis. Some indicators have multiple measures meaning that the total number of measures is 152. Unless otherwise stated, indicators cover C&YP aged 17 years and underⁱ and they draw on both administrative and survey data. Seventy-three of the indicators and 104 of the measures were established with associated data sources. Suitable data sources have yet to be identified for the remaining indicators and measures.

The indicators are structured within a framework under constructs (categories) of two types (Table 1):

- mental health outcomes – both mental wellbeing and mental health problems
- contextual factors – the factors associated with mental health at an individual, family, learning environment, community and structural domain level. These may be determinants or consequences of mental health or both.

Aim

The NHS Health Scotland mental health indicators aim to provide regular, comprehensive and up-to-date information on the mental health of the Scottish population, thus enabling evidence-informed decision-making for mental health improvement. Ultimately this will facilitate more effective mental health improvement policy and planning and contribute to reducing health inequalities.

i The upper age limit has been extended to 18 or 19 years in a few instances to allow the creation of a robust indicator or to align with an existing national indicator.

Table 1. Framework for the indicators (number of indicators shown in brackets)

Mental health outcomes				
Mental wellbeing (4)		Mental health problems (11)		
Contextual factors associated with mental health				
Individual	Family	Learning Environment	Community	Structural
Learning and development (2)	Family relations (7)	Engagement with learning (3)	Participation (4)	Equality (4)
Healthy living (7)	Family structure (4)	Peer and friend relationships (7)	Social networks (1)	Social inclusion (8)
General health (3)	Parental healthy living (5)	Educational environment (5)	Social support (1)	Discrimination (3)
Spirituality (1)	Parental health (5)	Pressure and expectations (5)	Trust (3)	Physical environment (5)
Emotional intelligence (1)			Safety (1)	Violence (3)
Life events (2)				Culture (3)

Target audience

This briefing paper and accompanying report⁴ are concerned with mental health at a national level and do not provide local analysis or international comparisons. The report is targeted towards organisations, partnerships, policymakers and planners driving progress towards improved mental health in Scotland and improved health of C&YP, as well as in other areas known to impact mental health at the wider contextual level. The mental health of C&YP impacts on all aspects of their life and equally the things that impact on the mental health of C&YP arise from a wide range of factors. As such, policymakers and practitioners from a number of fields, including public health and education, are important audiences for this report.

Although developed to support national level monitoring, the indicators are useful to the same professional groups working at a local level, as a framework to inform the development of local monitoring systems for mental health and to inform decision-making and prioritisation around local action for mental health improvement and strategy development. The national level estimates provide a benchmark for local comparison.

A document detailing the sub-national geographies available for each measure is available for download to assist with local level monitoring.⁵

2. Methods

The most recent estimates for each of the mental health outcome measures and contextual factors were obtained and tabulated. Where data allowed, trends over time and equalities analysis (by gender, age, the Scottish Index of Multiple Deprivation (SIMD) and the Scottish Government 6-fold urban-rural classification) were reported, with statistical analysis to assess trends and patterns for mental health outcomes.

Each reported indicator had a minimum of one measure associated with it. Multiple measures were reported for some indicators in cases where a single measure does not adequately cover the scope of the indicator.

For full details of the methods, please refer to the original report⁴ and accompanying technical supplement.⁶ An additional Excel file⁷ includes charts for all results, for both the time trends and equalities analyses.

3. Results

Mental health outcomes

Data were available for 13 of the 15 mental health outcome indicators and 60 of the 93 contextual indicators (and 104 of the 152 measures) leaving some gaps. As some indicators are developed further and data become available for others, there will be fewer gaps.

Trends over time (Table 2)

The picture over the past decade or so can be summed up as one of broad improvement for over half of the mental health outcome measures analysed (13 measures) and general stability over time for most others (11 measures). Of the mental wellbeing measures, over half (six measures) improved over the time period for which data were available, with the remainder staying relatively constant. There was a similar picture for mental health problems with approximately half improving (eight measures) and half remaining stable or showing no obvious pattern over time (six measures). Only one measure for an indicator of mental health problems (emotional symptoms for S4 pupils) deteriorated slightly.

Although only one measure worsened over time, the data suggest that there is considerable scope for action among those measures which remained largely steady or improved over time, but which are still at a relatively high level. Of those measures, hyperactivity/inattention stayed elevated over time for all age groups. Being happy improved over time but was still only reported by around half of P7 pupils, less than half of S2 pupils and about a third of S4 pupils in 2010. Similarly, despite some improvement between 2006 and 2010, approximately a quarter of S2 and S4 pupils still suffered from emotional and behavioural problems and conduct problems in 2010.

Inequalities (Tables 3 and 4)

There were inequalities across a wide range of mental health outcome indicators and measures. Equalities analysis was undertaken for between 11 and 13 out of 15 indicators depending on the equality grouping. Of these, there were differences by: gender for 28 out of 32 measures (88%); age for 14 out of 18 (78%); deprivation in 21 out of 23 measures (91%); and urban–rural classification in five out of 11 (45%).

Gender

Mental wellbeing varied by gender with boys more likely to report happiness, satisfaction with life, and score slightly higher for mental wellbeing (as assessed by the Warwick–Edinburgh Mental Well-being Scale (WEMWBS)) than girls. Girls scored better for pro-social behaviour than boys. The extent of mental health problems varied by gender for all measures with the exception of emotional and behavioural problems in S2 pupils, emotional symptoms in 4- to 12-year-olds and alcohol dependency in 16- to 19-year-olds. Overall, boys were less likely to have common mental health problems, emotional symptoms or to report sadness. Girls were less likely to have conduct problems or to suffer from drug-related disorders or to complete suicide. The direction of the gender difference was mixed for two indicators with multiple measures (emotional and behavioural problems and hyperactivity/inattention). The gender which fared better for these two indicators varied with age (girls fared better at a younger age and boys at an older age) and suggests that age may be an important factor when looking at gender differences in these indicators. As more data accumulate, this will be an important topic to explore for the insights it might provide for health improvement actions.

Age

For mental wellbeing, the majority of measures deteriorated with age. Life satisfaction and happiness decreased with age between P7, S2 and S4 pupils. Pro-social behaviour improved with age in younger children between 4 and 12 years but deteriorated with age in older children. Mental health problems generally increased with age, with the exception of conduct problems and hyperactivity/inattention, which decreased with age in children aged 4 to 12 years.

Area deprivation

Inequalities by area deprivation (SIMD) were common across both mental wellbeing and mental health problems. C&YP living in more deprived areas had poorer mental health outcomes than those living in less deprived areas. This was observed for all but two indicators, common mental health problems and alcohol dependency.

Urban-rural classification

Only five out of 11 mental health outcome measures (45%) fluctuated by urban–rural classification but showed no obvious pattern. All of these differences were observed for mental health problems. The overall picture of mental health by urban–rural classification is currently limited by data availability.

Table 2: Mental health outcomes: Trends over time

■ Statistically significantly better across time period¹ ■ Statistically not significantly different across time period¹ ■ Statistically significantly worse across time period¹

Indicator	Measure	School year / age (yrs)	Unit	Year											P-value		
				1998	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011			
Mental wellbeing	Mental wellbeing	Mean WEMWBS score*	16 to 17	Mean								51.0	52.1	51.4	50.1	0.21	
	Life satisfaction	Mean score of how satisfied with life nowadays	16 to 17	Mean									8.1	7.9	8.0	8.0	0.49
		Mean score on adapted Cantril ladder	P7	Mean		8.0					7.9				8.1		0.09
			S2	Mean		7.5					7.5				7.6		0.28
	Happiness	Feel very happy with their life at present	S4	Mean		7.4					7.1				7.3		0.46
			P7	%	51	55					60				55		<0.01
			S2	%	38	44					50				43		<0.01
	Pro-social behaviour	Normal score on the pro-social scale of the SDQ**	S4	%	30	38					36				33		<0.01
			S2	%							69		72		73		<0.01
			S4	%							67		71		70		0.01
		Normal score on the pro-social scale of the SDQ**	4 to 12	%			91					91	93	91	93	<0.05	
Mental health problems	CMHP [†]	Score of 4 or more on the GHQ-12***	16 to 19	%	12		12					11	14	12	14	0.32	
	Emotional and behavioural problems	Borderline or abnormal total difficulties score on the SDQ**	S2	%						28		24		23		<0.01	
			S4	%						27		26		26		0.01	
			Borderline or abnormal total difficulties score on the SDQ**	4 to 12	%			17				15	14	15	14	0.01	
	Emotional symptoms	Borderline or abnormal score on the emotional symptoms scale of the SDQ**	S2	%						16		14		15		0.92	
			S4	%						17		18		19		<0.01	
			Borderline or abnormal score on the emotional symptoms scale of the SDQ**	4 to 12	%			17				15	14	17	13	0.10	
	Conduct problems	Borderline or abnormal score on the conduct problems scale of the SDQ**	S2	%						33		28		24		<0.01	
			S4	%						31		27		24		<0.01	
			Borderline or abnormal score on the conduct problems scale of the SDQ**	4 to 12	%			24				23	22	22	21	0.03	
Hyperactivity/inattention	Borderline or abnormal score on the hyperactivity/inattention scale of the SDQ**	S2	%						33		33		29		<0.01		
		S4	%						35		36		34		0.28		
		Borderline or abnormal score on the hyperactivity / inattention scale of the SDQ**	4 to 12	%			19				20	19	20	20	0.44		
Alcohol dependency	Score of 2 or more on the CAGE questionnaire		16 to 19	%	6		5					15	13	3	8	0.29	

Footnotes
 1 Cells shaded red or green indicate a statistically significant difference (P<0.05) over the time period. 2 No data were available for two indicators, self-harm and eating disorders, as no suitable data source has yet been identified. 3 Where the age range available for a measure is discontinuous, data for each age group have not been combined to give an overall time trend. Instead, a time trend for each discrete age group has been presented separately. 4 P7 – Primary seven (approx. 11 years of age), S2 – Secondary 2 (approx. 13 years of age), S4 – Secondary 4 (approx. 15 years of age). 5 Data for measures for 4- to 12-year-olds was collected by parental/guardian assessment. 6 Multiple measures have been reported for some indicators where one measure does not adequately cover the scope of the indicator. 7 Only indicators with time series data have been included in the table.

Notes on indicators

*WEMWBS – Warwick–Edinburgh Mental Well-being Scale. **SDQ – Strengths and Difficulties Questionnaire. ***GHQ-12 – General Health Questionnaire -12. [†]CMHP – Common mental health problems

Table 3: Mental health outcomes: Inequalities by age and sex

Boys fare better than girls¹
 Girls fare better than boys¹
 statistically significant difference across the age range¹
 No statistically significant difference across the age range¹

Indicator	Measure	School yr /age	Unit	Year(s)	Gender			Age (years)							School year			P-value	
					Boys	Girls	P-value	4-5	6-7	8-9	10-12	16	17	18	19	P7	S2		S4
Mental wellbeing	Mean WEMWBS score*	16 to 17	Mean	2010-11	51.6	49.8	0.03						50.5	50.9					0.35
	Mean WEMWBS score*	S2	Mean	2010	50.9	49.9	<0.01									50.4			<0.01
	Mean WEMWBS score*	S4	Mean	2010	50.8	48.5	<0.01										49.7		<0.01
	Mean score of how satisfied with life nowadays	16 to 17	Mean	2010-11	8.1	7.8	0.01						8.0	8.0					0.98
	Life satisfaction	Mean score on adapted Cantril ladder	P7	Mean	2010	8.1	8.1	0.96								8.1			<0.01
			S2	Mean	2010	7.8	7.4	<0.01									7.6		<0.01
			S4	Mean	2010	7.5	7.2	<0.01										7.3	<0.01
	Happiness	Feel very happy with their life at present	P7	%	2010	59	52	0.00								55			<0.01
			S2	%	2010	48	37	<0.01									43		<0.01
			S4	%	2010	38	29	<0.01										33	<0.01
Pro-social behaviour	Normal score on the pro-social scale of the SDQ**	S2	%	2010	63	83	<0.01									73		<0.01	
		S4	%	2010	59	82	<0.01										70	<0.01	
	Normal score on the pro-social scale of the SDQ**	4 to 12	%	2008-11	90	94	<0.01	89	92	93	94								0.00
Mental health problems	CMHP [†]	Score of 4 or more on the GHQ-12***	16 to 19	%	2008-11	11	15	0.01						15	9	13	14		0.08
	Emotional and behavioural problems	Borderline or abnormal total difficulties score on the SDQ**	S2	%	2010	23	23	0.88									23		<0.01
			S4	%	2010	23	29	<0.01										26	<0.01
	Borderline or abnormal total difficulties score on the SDQ**	4 to 12	%	2008-11	16	12	<0.01	12	15	15	16								0.01
	Emotional symptoms	Borderline or abnormal score on the emotional symptoms scale of the SDQ**	S2	%	2010	10	20	<0.01									15		<0.01
			S4	%	2010	11	28	<0.01										19	<0.01
	Borderline or abnormal score on the emotional symptoms scale of the SDQ**	4 to 12	%	2008-11	14	16	0.10	8	14	16	19								<0.01
	Conduct problems	Borderline or abnormal score on the conduct problems scale of the SDQ**	S2	%	2010	28	20	<0.01									24		0.92
			S4	%	2010	28	20	<0.01										24	<0.01
	Borderline or abnormal score on the conduct problems scale of the SDQ**	4 to 12	%	2008-11	24	20	0.00	26	23	21	19								0.00
	Hyperactivity/inattention	Borderline or abnormal score on the hyperactivity/inattention scale of the SDQ**	S2	%	2010	30	27	<0.01									29		<0.01
			S4	%	2010	32	35	<0.01										34	<0.01
	Borderline or abnormal score on the hyperactivity/inattention scale of the SDQ**	4 to 12	%	2008-11	24	14	<0.01	21	22	21	16								0.00
	Sadness	Felt sad quite often, very often or always in the last week	P7	%	2010	25	30	0.01									27		<0.01
			S2	%	2010	26	36	<0.01										31	<0.01
S4			%	2010	29	43	<0.01										36	<0.01	
Alcohol dependency	Score of 2 or more on the CAGE questionnaire	16 to 19	%	2008-11	10	9	0.55						6	7	10	15		<0.01	
Drug-related disorders	Hospital patients: mental and behavioural disorders due to psychoactive drug use ^{††}	19 and under	SR	2011/12	26.3	12.5	<0.01											<0.01	
Suicide	Deaths from intentional self-harm or by events of undetermined intent ^{†††}	19 and under	SR	2007-11	4.4	2.1	<0.01											<0.01	

Footnotes
 1 Shaded cells and P-values of <0.05 indicate a statistically significant difference between boys and girls or across age groupings as indicated. 2 No data were available for two indicators, self-harm and eating disorders, as no suitable data source has yet been identified. 3 Where the age range available for a measure is discontinuous, data for each age group have not been combined to give estimates by gender; instead, gender data for each discrete age group have been presented separately. 4 P7 – Primary seven (approx. 11 years of age), S2 - Secondary 2 (approx. 13 years of age), S4 – Secondary 4 (approx. 15 years of age). 5 Data for measures for 4- to 12-year-olds was collected by parental/guardian assessment. 6 Point estimates are for the most recent year of data available at the time of analysis, for some measures it has been necessary to aggregate years to increase the sample size. 7 Multiple measures have been reported for some indicators where one measure does not adequately cover the scope of the indicator. 8 SR = Standardised Rate (age–sex standardised to the 1976 European Standard Population); % = per cent. 9 A “–” sign between years signifies two or more years of data combined e.g. 2010-2011, a “/” sign signifies a 12 month period which spans two calendar years (financial or academic) e.g. 2010/2011.
Notes on indicators
 *WEMWBS Warwick–Edinburgh Mental Well-being Scale. **SDQ – Strengths and Difficulties Questionnaire. ***GHQ-12 – General Health Questionnaire -12. †CMHP – common mental health problems ††Drug-related disorders – hospital patients per 100,000 C&YP aged 19 years and under in the past year from mental and behavioural disorders due to psychoactive substance use – general acute and psychiatric hospitals (age-standardised rate). †††Suicide – deaths per 100,000 C&YP aged 19 years and under in the past year from intentional self-harm or by events of undetermined intent (age standardised rate). Coding applied reflects definition of suicide prior to changes introduced by the World Health Organization in 2011.

Table 4: Mental health outcomes: Inequalities by area deprivation and urban rural classification

■ Statistically significant deterioration across Scottish Index of Multiple Deprivation (SIMD) quintiles¹
 □ No statistically significant difference across Scottish index of Multiple Deprivation (SIMD) quintiles¹

■ Statistically significant difference, overall, across the Scottish Government 6-fold urban-rural classification²
 □ No statistically significant difference, overall, across the Scottish Government 6-fold urban-rural classification²

Indicator	Measure	School year/age (years)	Unit	Year(s)	Scottish Index of Multiple Deprivation (SIMD) quintiles						6-fold urban-rural classification							
					1 most deprived	2	3	4	5 least deprived	P-value	1 large urban	2 other urban	3 accessible small	4 remote small	5 accessible rural	6 remote rural	P-value	
Mental wellbeing	Mean WEMWBS score*	16 to 17	Mean	2010-11	48.5	50.0	49.4	52.3	53.0	<0.01								
	Mean WEMWBS score*	S2	Mean	2010	49.5	50.0	50.1	50.7	51.4	<0.01	50.6	50.2	50.0	50.4	50.9	50.3	0.65	
		S4	Mean	2010	48.8	49.5	49.4	49.9	50.3	<0.01	49.7	49.7	49.4	49.2	49.9	49.6	0.47	
	Life satisfaction	Mean score of how satisfied with life nowadays	16 to 17	Mean	2010-11	7.7	7.9	7.9	8.1	8.2	<0.01							
	Pro-social behaviour	Normal score on the pro-social scale of the SDQ**	S2	%	2010	69	71	73	74	77	<0.01	73	72	74	76	74	73	0.49
			S4	%	2010	68	68	70	70	74	<0.01	70	71	69	68	72	69	0.15
Normal score on the pro-social scale of the SDQ**		4 to 12	%	2008-11	89	93	90	94	95	<0.01	92	92	95	92	93	90	0.09	
CMHP [†]	Score of 4 or more on the GHQ-12***	16 to 19	%	2008-11	14	13	18	9	11	0.09								
Emotional and behavioural problems	Borderline or abnormal total difficulties score on the SDQ**	S2	%	2010	29	25	23	21	19	<0.01	22	25	25	22	21	21	0.01	
		S4	%	2010	30	29	28	24	23	<0.01	25	27	26	30	26	26	0.02	
	Borderline or abnormal total difficulties score on the SDQ**	4 to 12	%	2008-11	26	17	15	8	7	<0.01	15	16	14	14	11	12	0.79	
Emotional symptoms	Borderline or abnormal score on the emotional symptoms scale of the SDQ***	S2	%	2010	17	15	15	14	14	<0.01	15	15	16	13	15	13	0.42	
		S4	%	2010	21	21	20	18	17	<0.01	19	20	19	22	19	18	0.09	
Conduct problems	Borderline or abnormal score on the conduct problems scale of the SDQ**	S2	%	2010	30	27	25	22	19	<0.01	24	26	26	23	22	22	0.00	
		S4	%	2010	28	27	25	21	20	<0.01	23	24	25	27	24	24	0.04	
	Borderline or abnormal score on the conduct problems scale of the SDQ**	4 to 12	%	2008-11	34	26	23	14	13	<0.01	23	25	22	19	16	19	0.14	
Hyperactivity / inattention	Borderline or abnormal score on the hyperactivity/inattention scale of the SDQ**	S2	%	2010	33	30	28	28	25	<0.01	28	30	30	26	28	26	0.02	
		S4	%	2010	37	35	35	31	31	<0.01	33	34	31	34	33	36	0.11	
	Borderline or abnormal score on the hyperactivity/inattention scale of the SDQ**	4 to 12	%	2008-11	27	24	20	14	14	<0.01	19	21	23	18	17	15	0.15	
Alcohol dependency	Score of 2 or more on the CAGE questionnaire	16 to 19	%	2008-11	10	8	9	11	9	0.92								
Drug-related disorders	Hospital patients: mental and behavioural disorders due to psychoactive drug use ^{††}	19 and under	SR	2011/12	42.3	24.6	17	9.9	5.8	<0.01								
Suicide	Deaths from intentional self-harm and undetermined intent [‡]	19 and under	SR	2007-11	4.6	3.6	3.2	1.7	1.1	<0.01								

Footnotes

1 Shaded cells and P-values of <0.05 indicate a statistically significant linear trend across SIMD quintiles. 2 Shaded cells and p-values of <0.05 indicate that the urban-rural classification variable is statistically significant overall in relation to the respective measure. 3 No data were available for two indicators, self-harm and eating disorders, as no suitable data source has yet been identified. 4 Where the age range available for a measure is discontinuous, data for each age group have not been combined to give an overall population estimate. Instead data for each discrete age group have been presented separately. 5 P7 – Primary seven (approx. 11 years of age), S2 – Secondary 2 (approx. 13 years of age), S4 – Secondary 4 (approx. 15 years of age). 6 Data for measures for 4- to 12-year-olds were collected by parental/guardian assessment. 7 Point estimates are for the most recent year of data available at the time of analysis, for some measures it has been necessary to aggregate years to increase the sample size. 8 Multiple measures have been reported for some indicators where one measure does not adequately cover the scope of the indicator. 9 Only indicators with data disaggregated by SIMD quintiles have been included in the table. 10 SR = Standardised Rate (age-sex standardised to the 1976 European Standard Population); % = per cent. 11. A “-” sign between years signifies two or more years of data combined e.g. 2010-2011, a “/” sign signifies a 12 month period which spans two calendar years (financial or academic) e.g. 2010/2011.

Notes on indicators

*WEMWBS – Warwick-Edinburgh Mental Well-being Scale. **SDQ – Strengths and Difficulties Questionnaire. ***GHQ-12 – General Health Questionnaire - 12. [†]CMHP – Common mental health problems. ^{††}Drug-related disorders – hospital patients per 100,000 C&YP aged 19 years and under in the past year from mental and behavioural disorders due to psychoactive substance use – general acute and psychiatric hospitals (age-standardised rate). [‡]Suicide – deaths per 100,000 C&YP aged 19 years and under in the past year from intentional self-harm or by events of undetermined intent (age standardised rate). Coding applied reflects definition of suicide prior to changes introduced by the World Health Organization in 2011.

Contextual factors associated with mental health

Of the 93 contextual indicators associated with the mental health of C&YP, time trend data were available for 50 indicators and equalities data for 60. Data were unavailable for four constructs in the individual domain, one in the learning environment, one in the community and two in the structural domain. These gaps leave a degree of uncertainty around how the contextual picture associated with mental health has changed over recent years and how it varies by age and gender.

Trends over time (Table 5)

There was an overall pattern of improvement in 27 of the 50 contextual indicators analysed over time with the majority being in the individual (eight indicators) and the structural domains (12 indicators). There was deterioration in 10 indicators, fluctuation with no obvious pattern for four indicators and no change/broad stability in nine indicators.

The individual and structural domains presented a picture of overall improvement. In the individual domain, there was improvement around general health and for most measures of healthy living with the exception of obesity and sexual health, which both showed no obvious trend. Alcohol consumption presented a mixed picture with an overall decrease in the percentage of C&YP drinking alcohol in the last week but a steady increase in the number of units being drunk by those who did report drinking alcohol. There was general improvement in the structural domain for all measures of poverty, around half of social inclusion (including education and homelessness) and three-quarters of physical environment measures (neighbourhood satisfaction, free time places and overcrowding). There is, however, scope for improvement around some measures which have improved or remained stable but are still a cause for concern such as poorer numeracy in older age groups, increases in looked after children,ⁱⁱ and worse perceptions of house condition. There were also divergent trends for body image and perception of looks with younger children generally rating these aspects more highly and also being the only age range to improve over time.

The family, learning environment and community domains had variable trends over time. The family domain was largely constant across family relations and parental health, with some improvement in terms of parental healthy living (maternal smoking) and family structure (teenage parents) and some deterioration in two indicators (family meals and parental common mental health problems). There was broad improvement in the learning environment domain in terms of the engagement with learning construct, stability around parental views in the educational environment construct, and a mixed picture for the peer and friend relationships construct. The community domain was mixed over time with the participation construct remaining largely unchanged. Trust and social support showed some indication of worsening over time whereas safety in the neighbourhood improved.

ii Caution is required in interpreting trends due to changes in recording practices, processes and categorisation. For example, the marked increase between 2008 and 2009 was largely driven by changes in recording practices and efforts to improve processes around data capture by Glasgow City. The increases since 2010 are partly due to improvement in recording and an additional category of 'Child plans' introduced in 2011.

Differences by age and gender (Table 6)

There was a mixed pattern by gender across the five contextual domains. Worse outcomes were frequently observed for older children in comparison to younger children across all contextual domains.

The individual contextual outcomes varied by gender in approximately half of all measures with boys largely faring better for physical activity, healthy eating (breakfast), smoking and condom use. Girls fared better for healthy eating ('5-a-day'), obesity and drug use. Outcomes largely deteriorated as children aged for most indicators in the healthy living construct and two-thirds of the general health constructs indicators.

Family contextual outcomes were largely similar for boys and girls across family structure, parental healthy living and parental health. Differences by gender were observed in terms of most measures of family relations and were strongly patterned by age with all indicators deteriorating as children got older.

The pattern by gender across the learning environment domain was mixed. On average, girls were more likely to report liking school than boys and largely fared better for measures of peer and friend relationships. Boys reported more positively than girls across the pressures and expectations construct. Outcomes largely deteriorated around the age where pupils moved from primary school into secondary school and this pattern was observed across all four constructs.

Community factors showed a mixed pattern by gender. Social support and trust were broadly similar for both boys and girls, though there was some variation across the different age groups. Overall, boys were more likely to report feeling safe in the area where they live than girls. In general, community factors were worse for older children with the exception of one measure of neighbourhood safety which remained stable across the age groups.

Structural factors were strongly patterned by gender with girls faring better than boys for more than half of all social inclusion indicators and boys faring better in terms of their views on perception of looks, body image and the physical environment where they live. Structural factors showed diverging patterns with age.

To improve the mental health of Scotland's C&YP population, priority should be given to the mental health outcome and contextual measures where there is evidence of worsening over time or where there is a clear need for more rapid improvement where measures are stable or improving slowly.

Table 5: Contextual factors: Trends over time

				Year															
				1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011		
	Indicator	Measure	School yr/age (yrs)	unit															
Individual	Healthy living	Physical activity	Met recommended level of physical activity in previous week	5 to 15	%									71	71	73	74		
		Healthy eating	Ate five or more portions of fruit and vegetables in previous day	2 to 15	%										13	15	12	13	
			Usually have breakfast every weekday	P7	%				70				77				78		
				S2	%				56				58				58		
		Obesity	Classified as obese or morbidly obese	2 to 15	%					14					15	15	14	16	
				S2	%				23		20		14		11		14		
		Alcohol consumption	Drank alcohol in the last week**	S4	%				46		43		36		31		34		
				P7	%		8		6				5				3		
			Units of alcohol drunk in the last week*	S2	Mean				10.0		9.0		13.0		16.0		15.0		
				S4	Mean				13.0		12.0		16.0		18.0		20.0		
	Drug use	Usually take illicit drugs at least once a month**	S2	%				4		4		2		1		0			
			S4	%				14		13		8		7		6			
	Smoking	Smoke cigarettes nowadays	16 to 17	%				16	26	16	14	17	21	11	12	16	12		
			S2	%				8		6		4		4		3			
		Usually smoke at least one cigarette a week**	S4	%				20		19		15		15		13			
	Sexual health	Pregnancies in the past year***	15 and under	CR				6.4	7.2	6.9	7.3	7.0	8.0	7.8	7.8	7.1	7.1		
			Used a condom on last occasion they had sexual intercourse	S4	%				70				79				72		
			15 and under	%											5	5	5	4	
General health	Self-reported health	Health perceived to be good or very good	15 and under	%					93					95	95	94	96		
	Long-standing physical condition or disability	Long-standing physical condition or disability	15 and under	%					17					13	13	13	13		
	Limiting long-standing physical condition or disability	Long-standing physical condition or disability that limits daily activities	15 and under	%					7					5	5	5	4		
Family	Family relations	Family meals	Eat a meal with one or both parents 4 or more times a week	P7	%	76			75				75			76			
				S2	%	76			75				73			73			
				S4	%	71			65				68			68			
		Talking to parents	Find it easy to talk to their mother about things that really bother them	P7	%				91					91			87		
				S2	%				79				79			78			
				S4	%				74				74			75			
	Find it easy to talk to their father about things that really bother them		P7	%				76					77			73			
			S2	%				65					63			65			
			S4	%				62					60			59			
	Family structure	Lone parent family	Living in lone parent households	17 and under	%				22	22	23	22	21	22	21	22	21	22	
		Teenage parents	Live births to females	15 and under	CR				1.2	1.1	1.0	1.1	1.2	1.1	1.0	1.1	0.9	0.9	
	Parental health PHL	Maternal smoking in pregnancy	Mothers who smoked during pregnancy in the past year	Child-bearing age	%				26	25	24	23	22	21	19	18	19	19	
Parental health	Parental CMHP	Have a parent scoring 4+ on the GHQ-12	15 and under	%					16						16		19		
	Parental alcohol dependency	Have a parent scoring 2+ on the CAGE questionnaire	15 and under	%					9						10		10		
	Parental limiting long-standing physical condition or disability	Have a parent with a long-standing physical condition or disability that limits daily activities	15 and under	%					17						16		17		
Learning environment	Engagement with learning	School attendance	School attendance in the past year ~	School pupils	%								93	93	93	93	93		
		Liking of school	Like school a lot or a bit at the moment	S2	%									70		74		74	
				S4	%									61		64		63	
		Like school a lot or a bit at present	P7	%	80				80					84		86		83	
	Peer and friend relationships	Close friends	Have at least 3 or more close friends	S2	%									86		86		85	
				S4	%								87		88		84		
			P7	%					93						94			96	
		Relationship with best friend	Find it easy to talk to their best friends about things that really bother them	P7	%					91					83				86
				S2	%					92					85				88
				S4	%					96					91				92
		Peer relationship problems	Borderline or abnormal score on the peer relationship problems scale of the SDQ	S2	%										17		16		15
				S4	%										14		12		15
			Borderline or abnormal score on the peer relationship problems scale of the SDQ	4 to 12	%						23					20	21	21	18
		Acceptance by peers	Agree that other pupils accept them as they are	P7	%					81						85			80
				S2	%					78						77			70
S4				%					73						73			72	
Experience of being bullied	Haven't been bullied at school in the past couple of months	P7	%	68				67						71			71		
		S2	%	68				69						71			74		
		S4	%	81				80						78			82		
Participation in bullying	Haven't taken part in bullying another pupil(s) at school in the past couple of months	P7	%	77				77						80			83		
		S2	%	74				72						74			80		
		S4	%	80				76						75			82		
EE	School ethos	Parents agree that school keeps them informed of child's progress	School-aged	%									87	88	88	87	87		

Table 6: Contextual factors: Inequalities by age and gender (continued)

	Indicator	Measure	Unit	Year(s)	School year / age (yrs)	All	Gender		School year / age (yrs)	Age				
						School year / age (yrs)	Boys	Girls						
Community	Participation	Influencing local decisions	Households with at least one child who regularly takes part in representing young people's views or involvement in youth politics	%	2011	8 to 17	3	N/A	N/A	N/A	N/A			
		Participation in clubs, groups or organisations	Households with at least one child who regularly takes part in clubs, groups or organisations	%	2011	8 to 17	80	N/A	N/A	N/A	N/A			
	Social support	Social support	Agree they can ask for help from neighbours in the area they live	%	2010	S2, S4	N/A	S2	74	72	S2	73		
		Neighbourhood trust	Agree they can trust people in the area where they live	%	2010	S2, S4	N/A	S4	67	70	S4	68		
	Trust	Neighbourhood trust	Disagree that most people in the area where they live would try to take advantage of them	%	2010	S2, S4	N/A	S2	68	67	S2	68		
			Community cohesion	Agree that people say 'hello' and stop to talk to each other in the street in the areas where they live	%	2010	S2, S4	N/A	S4	62	57	S4	60	
		Neighbourhood safety	Agree that it is safe for younger children to play outside during the day in the area where they live	%	2010	S2, S4	N/A	S2	57	60	S2	58		
	Safety	Neighbourhood safety	Feel safe walking alone in their neighbourhood after dark	%	2011*	16 to 17	88	16 to 17	90	74	N/A	N/A		
			Generally feel safe in the area they live	%	2010	S2, S4	N/A	S4	54	51	S2	52		
			Agree that it is safe for younger children to play outside during the day in the area where they live	%	2010	S2, S4	N/A	S2	75	77	S4	76		
Structural	Equality	Absolute poverty	Living in absolute poverty (before housing costs) ^a	%	2010/11 ¹	19 and under	10	19 and under	N/A	N/A	19 and under	N/A		
		Income inequality	GINI coefficient for households with children	Gini	2010/11 ¹	17 and under	0.30	17 and under	N/A	N/A	17 and under	N/A		
		Relative poverty	Living in relative poverty (before housing costs) ^{a,4}	%	2010/11 ¹	19 and under	17	19 and under	N/A	N/A	19 and under	N/A		
		Persistent poverty	Living in persistent poverty (before housing costs) ^{a,4,5}	%	2005-08	18 and under	13	18 and under	N/A	N/A	18 and under	N/A		
		Workless households	Living in workless households	%	2011	15 and under	14	15 and under	14	13	0 to 5	14		
	Social inclusion	Positive and sustained destinations	In positive and sustained destinations nine months after leaving school	%	2012	School leavers	87	School leavers	86	89	6 to 10	14		
			Education	Has at least one academic or vocational educational qualification	%	2011	16 to 17	87	16 to 17	87	88	11 to 15	13	
		Education	Leaving school with a qualification in English and Maths at least at SCQF Level 3	Well-established or better skills at the expected levels for their stage in numeracy ¹¹	%	2011	P4, P7, S2	N/A	P4	79	74	16	76	
				Well-established or better skills at the expected levels for their stage in reading ¹¹	%	2012	P4, P7, S2	N/A	P7	75	69	P7	72	
			School exclusion	Exclusions from local authority schools in the past year	Cases assessed as homeless or potentially homeless in the past year	CR	2011/12 ⁷	16 to 17	15.2	16 to 17	11.0	19.5	S2	42
C&YP in cases assessed as homeless or potentially homeless in the past year ¹¹					CR	2011/12 ⁷	18 and under	18.5	18 and under	18.5	18.5	S4	38	
Homelessness		Never felt lonely in the last week	Feeling lonely	%	2010	P7, S2, S4	N/A	P7	49	40	P7	45		
			Children looked after	Looked after by local authorities in the past year	CR	2012	17 and under	15.5	17 and under	16.4	14.6	S2	42	
Additional support needs		Classified as having additional support needs in the past year	Classified as having additional support needs in the past year	CR	2012	School pupils	175.9	School pupils	215.9	134.2	16 to 17	13.7	17	16.6
											0 to 4	28.0	5 to 11	16.1
	12 to 15										11.1	16 to 18	15.1	
	17										4.0	18	13.0	
	19										661.3	19	661.3	
Physical environment	Neighbourhood satisfaction	Rate their neighbourhood as a very or fairly good place to live	%	2011 ⁹	16 to 17	90	16 to 17	91	94	0 to 4	11.7			
		Feel that the area they live in is a really good or good place to live	%	2010	S2, S4	N/A	S2	73	71	S2	72			
	Free time places	Agree that there are good places to spend their free time in the area that they live	Households with children rating the condition of their house/flat as good ⁷	%	2010	S2, S4	N/A	S4	65	62	S4	63		
								S2	63	57	S2	60		
								S4	45	41	S4	43		
House condition	Households with children who feel their home has too few rooms ¹²	Households with children who feel their home has too few rooms ¹²	%	2011	17 and under	73	17 and under	N/A	N/A	17 and under	N/A			
							17 and under	N/A	N/A	17 and under	N/A			
Culture	Perception of looks	Think they are average, quite or very good looking	%	2010	P7, S2, S4	N/A	P7	80	81	P7	81			
							S2	76	62	S2	69			
Body image	Think their body is about the right size	Think their body is about the right size	%	2010	P7, S2, S4	N/A	S4	73	64	S4	68			
							P7	64	64	P7	64			
							S2	56	46	S2	51			
							S4	51	41	S4	46			

Footnotes
1 Where the age range available for a measure is discontinuous, data for each age group have not been combined to give an overall population estimate. Instead data for each discrete age group have been presented separately. 2 P7 – Primary seven (approx. 11 years of age), S2 – Secondary 2 (approx. 13 years of age), S4 – Secondary 4 (approx. 15 years of age). 3 Data for 2- to 12-year-olds were collected by parental/guardian assessment. 4 Point estimates are for the most recent year of data available at the time of analysis, for some measures it has been necessary to aggregate years to increase the sample size. 5 Multiple measures have been reported for some indicators where one measure does not adequately cover the scope of the indicator. 6 Data for measures for 8- to 17-year-olds were collected by parental/guardian assessment. 7 Values of zero are due to rounding of percentages to whole numbers. 8 WEMWBS – Warwick-Edinburgh Mental Well-being Scale. CMHP – Common mental health problems. GHQ-12 – General Health Questionnaire – 12. SDQ – Strengths and Difficulties Questionnaire; CR = crude rate; Gini = Gini coefficient; % = per cent; N/A = data are not available or cannot be calculated. 9. A "-" sign between years signifies two or more years of data combined e.g. 2010-2011. A "7" sign signifies a 12 month period which spans two calendar years (financial or academic) e.g. 2010/2011.
Notes on indicators
Individual – *Alcohol consumption: estimates based on revised conversion factors. **Pregnancies: by age at conception. Crude rate per 1,000 women in each age group. ***Equalities analysis by age and gender was undertaken for 2010 and 2011 combined.
Learning environment – ~School attendance in last year – year refers to the first year in the academic year; e.g. 2010 = 2010/11.
Community – *Neighbourhood safety (Feeling safe walking alone in their neighbourhood after dark) – equalities analysis by gender and age was undertaken with data for 2010 and 2011 combined.
Structural – *Includes children and young people aged 15 years and under, or aged 16 to 19 years (but not married nor in a civil partnership nor living with a partner and living with their parents and in full-time non-advanced education or in unwaged government training); absolute poverty is defined as living in households whose equivalised income is below 60% of the (inflation adjusted) Great Britain median income in 1998/99. **Includes children and young people age 15 years and under, or aged 16 to 19 years (but not married nor in a Civil Partnership nor living with a partner and living with their parents and in full-time non-advanced education or in unwaged government training); relative poverty is defined as living in households whose equivalised income is below 60% of UK median income in the same year. §Absolute poverty, relative poverty and Gini – year refers to the first year in the financial year; e.g. 2010 = 2010/11. ****Includes children and young people aged 15 years and under, or aged 16 to 18 years (but in school or non-advanced further education, not married and living with their parents) living in households which have spent three or more years out of any four-year period in relative poverty. The data are entered under the last year of the four-year period of assessment. †Education (leaving school with a qualification in English and Maths at least at SCQF Level 3) and school exclusion – year refers to the first year in the academic year; e.g. 2010 = 2010/11. ††This measure has been changed from mathematics to numeracy. †††The data source for this measure has changed from Scottish Survey of Achievement (SSA) to the Scottish Survey of Literacy and Numeracy (SSLN). The data presented here are from SSLN. ††††Homelessness – year refers to the first year in the financial year; e.g. 2011 = 2011/12. †††††Children and young people in cases assessed as homeless or potentially homeless per 1,000 aged 15 years and under, or aged 16 to 18 years (who are either receiving or about to begin full-time education or training, or are, for some other reason unable to support themselves in the past year). ††††††Neighbourhood satisfaction (Rate their neighbourhood as a very or fairly good place to live) – equalities analysis by gender and age was undertaken with data for 2010 and 2011 combined. †††††††Households with children aged 17 years and under where the highest income householder (or their spouse/partner) rates the condition of their house or flat as

4. Conclusions

Overall, the mental health of C&YP has improved or stayed broadly constant over the past decade or so. Improvement was seen across most domains, particularly around substance use (e.g. drug use and smoking – both in school pupils and during pregnancy), poverty and homelessness.

There remain, however, substantial opportunities to improve mental health and the conditions in which it can flourish to enable Scotland's C&YP population to reach its full potential. Alcohol consumption presents a paradox whereby the number of C&YP who reported drinking alcohol reduced over the time period but the mean number of units being drunk by those who reported drinking in the previous week increased. The Scottish Government recognises the need to tackle alcohol misuse as a priority⁸ and continuing action to address this issue will remain important.

The extensive inequalities in mental health outcomes by gender, age and SIMD and contextual factors by gender and age demonstrate the need for a range of national policies to give direction to and support this agenda. These include policies on nutrition and physical activity, drugs, alcohol, suicide prevention, poverty, inequality and also many others that less directly shape the context for mental health. Such an approach is consistent with the aspiration within *Better Health, Better Care*: 'to build a country in which we understand that there is no health without good mental health and know how to support and improve our own and others' mental health and wellbeing.'⁹ Particular attention should be paid to the regularly occurring pattern of deterioration in many contextual measures as children get older and in the strong patterning of mental health outcomes by gender and socio-economic deprivation in particular.

Given the cross-cutting nature of mental health, this report is of relevance and value to policy areas and agendas beyond mental health improvement and also beyond health improvement. Specifically, the findings presented here will be informative to those working towards advancing distinctive agendas for C&YP such as *The Early Years Framework*,¹⁰ including the Early Years Collaborative, 'Getting it right for every child' (GIRFEC)¹¹ and Curriculum for Excellence.^{12, 13}

We hope that this report will contribute to that process by adding to our understanding of C&YP mental health and its context in Scotland – where we stand today, what changes have occurred over the last decade or so, and where inequalities exist. In terms of application, we hope that the report's findings will enable evidence-informed decision-making for mental health improvement policy and planning; that future mental health strategy will explicitly refer to and be driven by the priorities for action identified in the report.

5. References

1. Scottish Government. *Towards a mentally flourishing Scotland: Policy and action plan 2009–11*. Edinburgh: Scottish Government; 2009.
2. Scottish Government. *Mental Health Strategy for Scotland: 2012–2015*. Edinburgh: Scottish Government; 2012.
3. Parkinson J. *Establishing a core set of national, sustainable mental health indicators for children and young people in Scotland: Final report*. Glasgow: NHS Health Scotland; 2012.
4. Tod E, Parkinson J, McCartney G. *Scotland's mental health: Children and young people 2013*. Edinburgh. NHS Health Scotland; 2013
www.scotpho.org.uk/publications/reports-and-papers/1159-Scotlands-mental-health-children-and-young-people-2013
5. Parkinson J. *Scotland's mental health: Children and young people 2013. Sub-national data availability*. Glasgow: NHS Health Scotland; 2013. Available from: www.scotpho.org.uk/reports-and-papers/1159-Scotlands-mental-health-children-and-young-people-2013
6. Tod E, Parkinson J and McCartney G. *Scotland's mental health: Children and young people 2013. Technical supplement*. Glasgow: NHS Health Scotland; 2013. Available from: www.scotpho.org.uk/reports-and-papers/1159-Scotlands-mental-health-children-and-young-people-2013
7. Tod E, Parkinson J, McCartney G. *Scotland's mental health: Children and young people 2013. Excel chart file*. Glasgow: NHS Health Scotland; 2013. Available from: www.scotpho.org.uk/reports-and-papers/1159-Scotlands-mental-health-children-and-young-people-2013
8. Scottish Government. *Changing Scotland's Relationship with Alcohol: A Framework for Action*. Edinburgh: Scottish Government; 2009.
9. Scottish Government. *Better health, better care: Action plan*. Edinburgh: Scottish Government; 2007.
10. Scottish Government. *The Early Years Framework*. Edinburgh: Scottish Government; 2008.
11. Scottish Government. *A guide to Getting it right for every child*. Edinburgh: Scottish Government; 2004.
12. Scottish Government. *A curriculum for excellence: The curriculum review group*. Edinburgh: Scottish Government; 2004.
13. Scottish Government. *Curriculum for Excellence building the curriculum 3: A framework for learning and teaching*. Edinburgh: Scottish Government; 2008.

