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Child well-being in the European Union

Better monitoring instruments for better policies

Presentation at the ISG meeting
Brussels, 14 June 2011

About the report

- **Commissioned by** the State Secretary of Social Inclusion of the Hungarian Ministry of Public Administration and Justice
- **Aim:**
 - to assist the Ch WB indicator development process
 - to test a potential indicator portfolio for regular monitoring
- **Time frame:** 1 December 2010 – 31 May 2011
- In terms of indicator development, the report is a direct **follow-up** of the EU Task-Force report (2008) and of TÁRKI-Applica report (2010)

Conclusions of the TÁRKI-Applica report (2010)

- There is a need for a comprehensive **set of indicators** to monitor ChP and WB, **instead of** filling in the **reserved slot** for child well-being with only one or two well-being indicators
- A first version of the portfolio was suggested
- The new set should:
 - reflect most of the **child well-being dimensions**
 - incorporate already agreed **Social OMC indicators** at the largest extent
 - include a few **new material well-being indicators**
 - include a **whole range of non-material indicators**
 - include **new breakdowns** for the already existing indicators

Value added of this report

- Refined version of the suggested portfolio
 - reflection on the ongoing EU indicators developments
 - strengthened equity aspects: incidence of outcomes across social groups
 - emphasis on trends
 - upgraded existing indicators by carefully selected non-material indicators
- Data update for 2008/2009
- Suggested two monitoring instruments
 - **child well-being monitoring framework**: cross-country comparative frame to identify key challenges
 - **policy marker report cards** at individual country level

1 An integrated child well-being indicator portfolio

2 Policy marker report card prototype: mapping individual countries

3 Child well-being monitoring framework

1 An integrated child well-being
indicator portfolio

Main aspects of portfolio-building

- To have a **balanced** and a **coherent portfolio** of indicators across dimensions and across main phases of childhood
- To keep the **structure** of the portfolio as **simple** as possible
- To rely as much as possible on the already agreed **Social OMC** indicators and **EU2020** indicators
- To distinguish between **resource based** measures and forward-looking indicators of child **outcomes**
- To reflect the policy need of breaking the **intergenerational transmission of poverty**

An integrated child well-being indicator portfolio - main indicators

Dimensions	Child age groups		
	0-5	6-11	12-17
A1: Income	At-risk-of-poverty rate	At-risk-of-poverty rate	At-risk-of-poverty rate
	Relative median poverty risk gap	Relative median poverty risk gap	Relative median poverty risk gap
	Persistent at-risk-of-poverty rate (Dispersion around the poverty threshold)		
A2: Material deprivation	Primary indicator of mat. depr.	Primary indicator of mat. depr.	Primary indicator of mat. depr.
	(Secondary indicator of mat. deprivation)		
	Severe material deprivation	Severe material deprivation	Severe material deprivation
A3: Housing	Housing costs Overcrowding		
A4: LM attachment	Share of children in jobless households Share of children in low work- intensity (including jobless) households		
	Childcare use		
B1: Education	Participation in pre-primary education	(Low) Reading lit. perf. - 10y Educational deprivation	(Low) Reading lit. perf. – 15y Educational deprivation Early school-leavers (18–24)
B2: Health	(Life expectancy) (Perinatal mortality) Infant mortality Vaccination Low birth weight Breastfeeding	Oral health Fruit daily Breakfast every school day (Overweight)	General life satisfaction Physical activity (Self-perceived general health)
B3: Risk behaviour			Teenage births Daily smoking Regular alcohol use; Heavy episodic drinking Illicit drug use; Tranquill. use
B4: Social part., fam. envir.	(Share in single-parent households)		
B5: Local environment	(Crime in the area is a problem) (Pollution or dirt is a problem in the area)		

An integrated child well-being indicator portfolio - breakdowns

Dimension	Indicator with 0-17 age breakdown	Breakdown
A1: Income	A1: At-risk-of-poverty rate	Child age, work intensity, household type, migrant st.
	A1.2 Relative median poverty risk	Child age
A2: Material deprivation	A2.1: Material deprivation	Child age, work intensity, household type, migrant st.
	A2.2: Severe material deprivation	Child age, work intensity, household type, migrant st.
B1: Education	B1.1: Low reading literacy performance of pupils aged 15	Parents' education, migrant status
	B1.2: Low reading literacy performance of pupils aged 10	Parents' education
	B1.5 Educational deprivation	Parents' education
B2: Health	B2.1 Infant mortality	Gender
	B2.2a-c Vaccination in children	Gender
	B2.3 Low birth weight	Gender
	B2.4 Exclusive breastfeeding	Gender
	B2.5: General life satisfaction	Gender, family affluence scale
	B2.2: Oral health	Gender, family affluence scale
	B2.3: Eating fruit daily	Gender, family affluence scale
	B2.4: Having breakfast every school day	Gender, family affluence scale
B3: Risk behaviour	B3.2 Daily smoking	Gender
	B3.3 Regular alcohol use	Gender
	B3.4 Heavy episodic drinking	Gender
	B3.5 Illicit drug use	Gender
	B3.6 Tranquillizers/medicines use	Gender

2 Mapping individual countries -
policy marker report card prototype

1. Overall country picture based on main indicators

Main Indicators		2006	2007	2008	2009	Overall pop.	EU-27	Rel. perf. (to the EU-27)
A1	Income poverty							
A1.1	At-risk-of-poverty rate after social transfers (%)	24.8	18.8	19.7	20.6	12.4	19.9	-
A1.2	Relative median poverty gap (%)	25.3	19.5	16.8	16.7	16.3	23.4	+
A1.3	Persistent at-risk-of-poverty rate (%)	-	:	15.4	-	6.4	9.4	-
A2	Material deprivation							
A2.1	Material deprivation rate (%)	42.0	43.5	39.3	46.9	40.9	20.3	--
A2.2	Severe material deprivation rate (%)	24.8	24.4	21.5	26.3	20.8	9.4	--
A3	Housing							
A3.1	Housing costs overburden rate (% of disposable household income)	14.5	7.1	13.0	10.0	8.9	12.0	0
A3.2	Overcrowding rate (%)	66.1	63.2	64.4	72.2	55.0	24.0	--
A4	Labour-market participation							
A4.1	Share of children in jobless households (%)	13.7	13.9	14.6	15.6	13.1	10.2	--
A4.2	Share of children in low work-intensity households (%)	13.9	10.2	15.8	:	16.8	9.7	--
A4.3	Childcare (% of children 0-2 years not in formal childcare)	-	-	-	93.0	-	72.0	-
B1	Education							
B1.1	Low reading literacy performance of children aged 15 (%)	21.0	-	-	17.6	-	20.6	+
B1.2	Low reading literacy performance of children aged 10 (%)	13.8	-	-	-	-	18.5	+
B1.3	Early school-leavers (% of population aged 18-24)	10.9	11.4	11.7	11.2	-	14.4	+
B1.4	Share of children aged 4 in pre-primary education (%)	:	92.0	92.5	-	-	90.1	+
B1.5	Educational deprivation (%)	-	-	-	9.9	-	8.5	-
B2	Health							
B2.1	Infant mortality rate (per 10,000 births)	5.1	5.6	5.9	5.7	-	4.7	-
B2.2a	Vaccination coverage in children (% of children at risk) - DTP3	-	-	-	99.0	-	95.4	+
B2.2b	Vaccination coverage in children (% of children at risk) - MCV	-	-	-	99.0	-	93.2	+
B2.2c	Vaccination coverage in children (% of children at risk) - Pol3	-	-	-	99.0	-	95.2	+
B2.3	Low birth weight (% of children < 2,500 grams)	8.3	8.2	8.3	8.4	-	7.2	--
B2.4	Exclusive breastfeeding rate (% of children aged 6 months)	-	43.9	-	-	-	27.7	++
B2.5	General life satisfaction (% of children aged 13 highly satisfied with life)	83.9	-	-	-	-	85.4	-
B2.6	Oral health (% of children aged 11 brushing more than once a day)	54.7	-	-	-	-	61.1	-
B2.7	Children who eat fruit daily (% of children aged 11)	42.1	-	-	-	-	40.4	0
B2.8	Children who eat breakfast every school day (% of children aged 11)	59.3	-	-	-	-	60.7	-
B2.9	Physical activity (% of children aged 13)	20.7	-	-	-	-	19.8	0
B3	Risk behaviour							
B3.1	Teenage births (births per 100 women aged 15-19)	2.0	1.9	2.0	1.9	-	1.5	-
B3.2	Daily smoking (share of daily smokers among those aged 16, %)	-	24.0	-	-	-	19.0	-
B3.3	Regular alcohol use (6+ drinking occasions per month, share of 16y, %)	-	14.0	-	-	-	22.0	+
B3.4	Heavy episodic drinking (at least once a month as share of 16y, %)	-	36.0	-	-	-	45.0	+
B3.5	Illicit drug use (lifetime prevalence rate among 16y, %)	-	15.0	-	-	-	22.0	+
B3.6	Tranquilliser/medicine use without doctor's orders (lifetime prevalence rate among 16y, %)	-	9.0	-	-	-	7.0	-

Figures for children

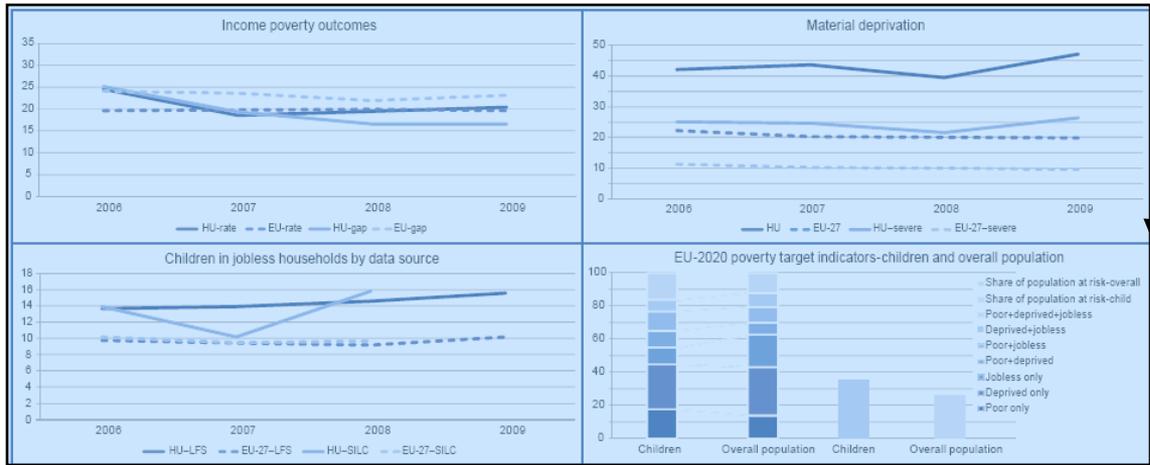
Figures for overall pop.

EU-27 average figures

Unweighted EU-average

Rel. perf. to the EU-27

Trends



2. Suggested breakdowns to complete main indicators

A. Material well-being

B. Non-material well-being

Income poverty					EU-27		Education		2006	2009
A1.1a	At-risk-of-poverty rate by age of child	2006	2007	2008	EU-27	B1.1	Difference in reading literacy performance of pupils aged 15			
	0-5	26	20	18	19		by education of parents (tertiary/lower secondary or below, point difference)	115	137	
	6-11	25	19	20	20		by migrant status (first-generation immigrant/native, %)	110	100	
	12-17	24	18	20	22	B1.2	Difference in reading literacy score of pupils aged 10			
A1.1b	At-risk-of-poverty rate by household type						by education of parents (tertiary/lower secondary or below, point difference)	112	-	
	Single-parent household with dep ch	44	31	37	40	B1.3	Educational deprivation (share of students with less than 5 educational items out of 7, %)			
	2 adults, 1 dep ch	16	12	11	12		primary, lower secondary	-	47	
	2 adults, 2 dep ch	19	14	16	15		secondary	-	9	
	2 adults, 3+ dep ch	35	29	30	27		tertiary	-	4	
	Other household with dep ch	17	11	14	21	Health				
A1.1c	At-risk-of-poverty by work intensity of household					B2.5	General life satisfaction (% of children aged 13 with high life satisfaction)		Girls	Boys
	0	81	72	60	64		LOW family affluence scale	70	71	
	0.01-0.49	61	47	39	43		MIDDLE family affluence scale	84	84	
	0.5	22	15	17	25		HIGH family affluence scale	87	90	
	0.51-0.99	9	12	10	11		Total	80	82	
	1	7	5	3	8	B2.6	Oral health (% of children aged 11 brushing more than once a day)			
A1.1d	At-risk-of-poverty by migrant status of parents						LOW family affluence scale	57	37	
	Born within EU - other country	0#	100#	17#	27		MIDDLE family affluence scale	67	50	
	Born outside EU	23#	50#	0#	39		HIGH family affluence scale	72	67	
	Other	25#	42	20	19		Total	65	51	
Material deprivation						B2.7	Children who eat fruit daily (% of children aged 11)			
A2.2a	Severe material deprivation among children by age of child						LOW family affluence scale	33	23	
	0-5	25	24	20	9		MIDDLE family affluence scale	39	34	
	6-11	24	23	22	10		HIGH family affluence scale	45	36	
	12-17	26	25	22	11		Total	39	31	
A2.2b	Severe material deprivation rate (%) by household type					B2.8	Children who eat breakfast every school day (% of children aged 11)			
	Single-parent household with dep ch	39	38	36	21		LOW family affluence scale	45	50	
	2 adults, 1 dep ch	18	17	14	6		MIDDLE family affluence scale	49	54	
	2 adults, 2 dep ch	16	16	14	5		HIGH family affluence scale	46	55	
	2 adults, 3+ dep ch	35	34	32	12		Total	47	53	
	Other household with dep ch	25	22	23	17	Exposure to risk and risk behaviour				
A2.2c	Severe material deprivation rate (%) by work intensity of household					B3.2	Daily smoking (share of daily smokers among aged 16, %)	13	14	
	0	65	65	51	31	B3.3	Regular alcohol use (6 or more drinking occasions in a month as share of 16y, %)	12	17	
	0.01-0.49	51	47	39	22	B3.4	Heavy episodic drinking (at least once a month as share of 16y, %)	33	39	
	0.5	22	25	18	9	B3.5	Illicit drug use (lifetime prevalence rate of total illicit drug use among 16y, %)	13	18	
	0.51-0.99	18	16	18	6	B3.6	Tranquilliser/medicine use w/out doctor's orders (lifetime prevalence rate among 16y, %)	12	6	
	1	10	11	8	6					
A2.2d	Severe material deprivation rate (%) by migrant status									
	Born within EU - other country	0#	70#	12#	10					
	Born outside EU	28#	19#	37#	18					
	Other	25#	24	21	9					

Unreliable estimate (N<20)

3. Relative performance – methods for computing

- **Seven country groups** based on distribution of z-scores (sample: EU-27)
- Definitions and cut-off points

	Notation	Range of z-score*
Very high	+++	$2 <$
High	++	$1 < 2$
Moderately high	+	$0.25 < 1$
Average	0	$- 0.25 < + 0.25$
Moderately low	-	$-1 < -0.25$
Low	--	$-2 < -1$
Very low	---	< -2

Cut-off points: the distance from average of EU-27, measured by standard deviations

Lead indicators: a first list for consideration

- Income poverty: at-risk-of-poverty rate
- Material deprivation: severe material deprivation rate
- Housing: overcrowding rate
- Labour market participation of parents: children in low work intensity households
- Education: early school-leavers
- Health: low birth-weight
- Exposure to risk and risk behaviour: daily smoking

3. Presentation of country's relative performance

Main indicators

EU-27 max

EU-27 min

Lead indicators

HIGH performance: the value of that specific indicator differs from the EU-average in the 'good' direction (by at least 1 SE)

LOW performance: the value of that specific indicator differs from the EU-average in the 'bad' direction (by at least 1 SE)

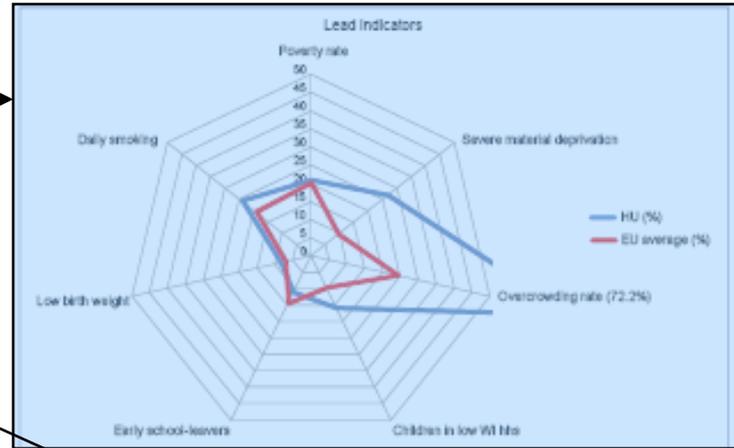
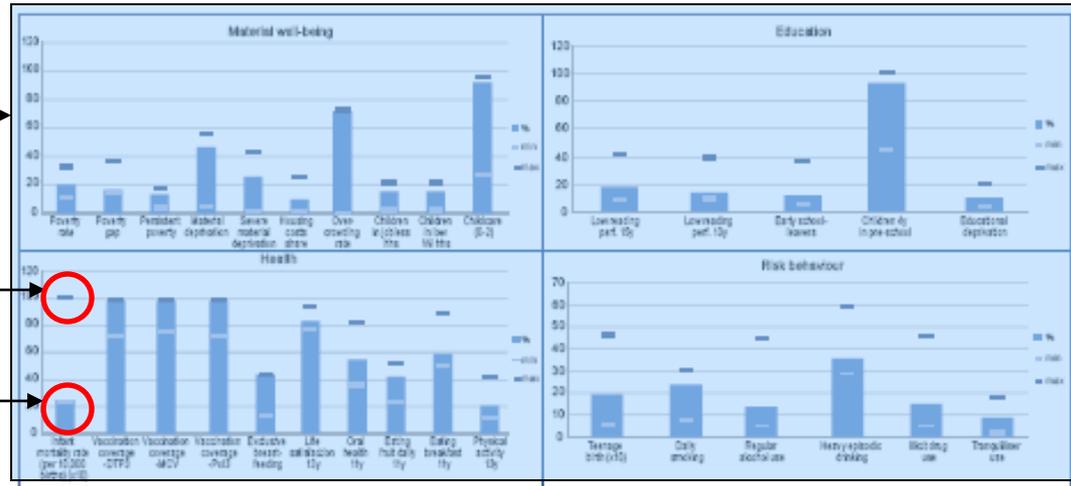


Table 3.3: Relative performance and country-specific data notes

	Low performance	High performance	Country-specific data notes
Material deprivation		Exclusive breastfeeding rate (% of children aged 6 months)	The SILC survey started in 2005 in Hungary. 2008 was the first year Hungary participated in the SILC longitudinal database. At-risk-of-poverty estimates for 2008 are uncertain, to be interpreted cautiously.
Severe material deprivation			
Overcrowding			
Share of children in jobless households			
Share of children in low work-intensity households			
Low birth weight			

3 Child well-being monitoring framework

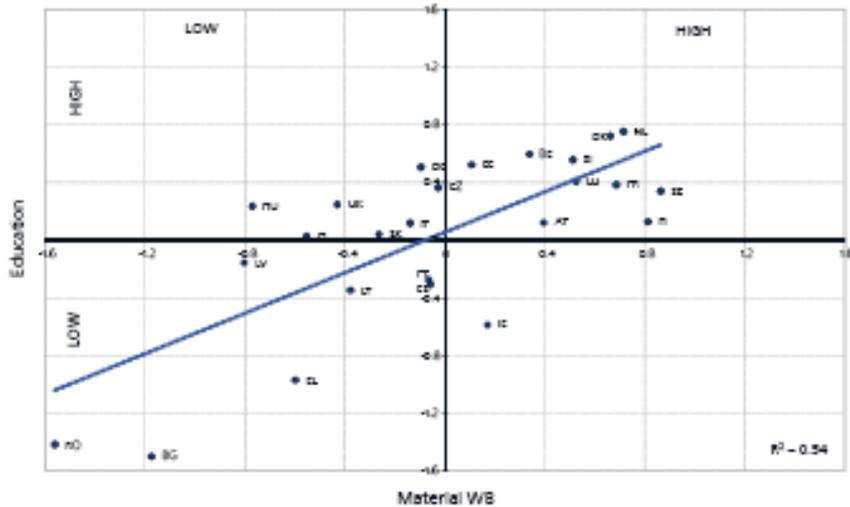
Table 4.2: Country performances across dimensions and indicators of child well-being in the European Union

		RO	BG	LV	LT	HU	SK	EL	PL	UK	CZ	MT	PT	IT	ES	EE	DE	FR	AT	IE	BE	SI	LU	DK	FI	NL	CY	SE	
A1.1	Poverty rate	---	---	---	-	-	+	-	-	-	++	-	-	-	-	+	+	++	0	+	++	-	++	++	+	++	++		
A1.2	Poverty gap	---	---	---	-	+	-	-	0	+	0	++	-	-	---	+	+	+	+	++	0	+	+	+	++	++	+	+	
A2.2	Severe material deprivation	---	---	---	-	---	0	0	-	0	+	+	0	0	+	+	+	+	+	0	+	+	+	+	+	+	+	+	
A3.1	Housing costs overburden	-	+	+	+	0	0	---	+	---	0	+	0	0	-	+	---	++	+	+	+	+	+	---	+	-	++	+	
A3.2	Overcrowding	---	---	---	---	---	-	0	---	+	-	+	+	0	+	-	+	+	+	+	+	+	-	+	+	+	++	++	+
A4.2	Low work intensity	0	-	+	+	---	+	+	-	---	0	:	0	0	+	+	-	:	0	---	-	+	+	+	+	+	+	+	
A4.3	Childcare	---	-	-	-	-	---	-	---	+	---	-	+	0	+	0	-	+	-	0	+	+	+	+++	0	++	0	+++	
B1.1	Low reading perf. – 15 y	---	---	+	-	+	0	0	+	+	-	:	+	0	0	+	+	0	-	+	+	0	-	+	++	+	:	+	
B1.3	Early school-leavers	-	0	0	+	+	++	0	++	-	++	:	---	-	---	0	+	0	+	+	+	++	+	+	+	+	:	+	
B1.4	Pre-school enrol. – 4 y	0	-	0	---	+	-	---	---	+	0	:	0	+	+	+	+	++	0	---	+	0	+	+	---	+	:	+	
B1.5	Educational deprivation	---	---	-	-	-	0	---	+	0	+	0	+	+	0	+	+	+	+	-	+	++	+	++	0	+	0	0	
B2.1	Infant mortality	---	---	---	-	-	-	+	-	0	+	+	+	+	+	0	+	+	+	+	+	+	+	+	+	+	0	+	+
B2.3	Low birth weight	-	---	++	++	---	-	---	+	-	-	0	-	0	---	++	0	0	-	+	-	0	++	0	++	0	:	++	
B2.5	General life satisfaction	-	---	---	---	-	0	+	---	-	-	:	-	-	++	0	---	0	+	+	++	0	0	++	++	+++	:	0	
B2.6	Oral health	---	0	-	---	-	0	---	0	+	+	---	-	+	0	0	++	0	++	0	-	-	+	++	---	++	:	++	
B2.7	Eating fruit every day	+	++	---	---	0	++	-	-	+	+	+	++	+	0	-	+	-	+	+	+	+	---	+	+	---	0	:	0
B2.8	Eating breakfast every school day	---	+	0	0	-	---	---	0	+	---	---	++	0	++	0	+	+	-	+	+	-	0	++	+	++	:	++	
B2.9	Physical activity	-	+	+	-	0	-	-	-	0	+	-	-	-	0	-	-	---	0	++	0	+++	-	0	0	+	:	-	
B3.1	Teenage birth	---	---	-	-	-	-	+	0	---	+	-	0	+	0	-	+	+	+	0	+	++	+	+	+	+	++	+	+
B3.2	Daily smoking	0	---	---	0	-	-	+	++	+	-	++	++	-	---	0	-	+	---	+	+	0	:	-	0	0	+	++	
B3.3	Regular alcohol use	+	-	+	+	+	0	0	+	-	-	---	0	-	+	+	---	0	---	+	-	+	:	-	++	---	0	++	
B3.4	Heavy episodic drinking	++	-	---	+	+	-	+	+	---	-	---	---	+	++	---	:	0	:	:	+	-	:	---	++	:	++	+	
B3.5	Illicit drug use	++	0	0	0	+	---	++	+	-	---	+	+	-	---	-	0	---	0	0	-	0	:	-	++	-	++	++	
B3.6	Tranquilliser use	+	+	-	---	-	---	++	---	+	-	+	---	0	-	+	++	---	++	-	-	+	:	+	+	0	+	+	
A1.3	Persistent poverty	:	:	-	-	-	0	-	---	:	:	-	:	:	---	-	++	:	++	:	+	+	-	:	++	+	++	:	
A2.1	Material deprivation	---	---	---	0	---	-	0	-	+	+	0	-	0	+	0	+	+	+	0	+	+	++	++	+	++	0	++	
A4.1	Joblessness	-	-	0	-	---	0	++	0	---	0	-	+	+	+	+	-	0	+	---	-	++	++	++	++	0	+	++	0
B1.2	Low reading perf. – 10 y	---	0	+	+	+	0	:	---	-	:	:	:	+	---	:	+	-	+	:	0	-	+	+	:	++	:	+	
B2.2a	Vaccination – DTP3	:	0	+	+	+	+	+	+	-	+	+++	0	:	0	0	---	+	---	0	+	0	+	:	+	+	+	+	
B2.2b	Vaccination – MCV	+	+	+	+	+	+	+	+	---	0	---	+	---	+	+	---	-	---	-	0	+	+	+	+	+	---	+	
B2.2c	Vaccination – Pol3	:	0	0	+	+	+	+	0	-	+	+++	0	0	0	0	---	+	---	0	+	0	+	0	+	0	+	+	
B2.4	Exclusive breastfeeding	+	:	:	:	++	++	:	:	:	+	:	+	0	-	:	:	:	:	:	:	:	:	:	:	:	-	---	---

Source: Own classification based on the indicator portfolio suggested in Tables 1.1 and 1.2 and on the policy marker report cards presented in Part 3.

Notes: The methodology of evaluating relative performance is presented in Part 3 of this report. Countries ranked by a weighted average of performance achieved in each dimension and for each indicator shown in the top section of the table. Indicators in the bottom section of the table (A1.3, A2.1, A4.1, B1.2, B2.2a–c, B2.4) were not part of the ranking exercise.

Generalization on the relationships between material and non-material WB outcomes

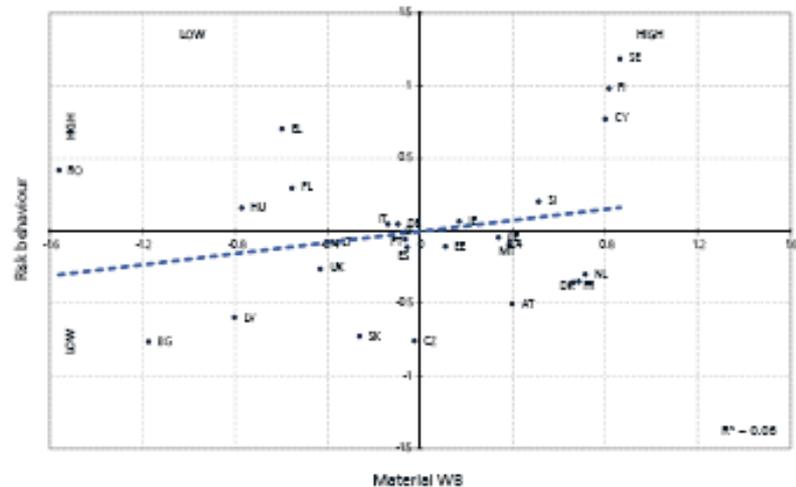
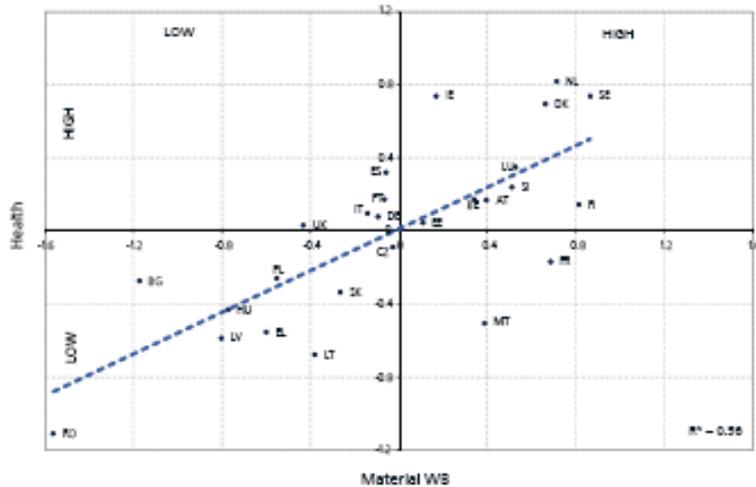


Figures 4.1a–c: Non-material child well-being outcomes (education, health, risk behaviour) and material resources, EU-27

Source: Own estimations following the methodology described in section 4.2 of this report.

Notes: CY and MT are missing from Figure 4.1a due to the lack of data for all indicators considered in the (B1) Education dimension. The same holds for LU in (B3) Risk behaviour (Figure 4.1c). CY has been dropped from Figure 4.1b, since its performance would have been evaluated using only one indicator (B2.1 infant mortality) out of seven in (B2) Health dimension, due to lack of data for others,

- There is a significant correlation between material well-being on the one hand and education and health performance on the other
- This is not the case for risk behaviour



Suggestions for the way forward

A. Indicator development

- Existing indicators: refinements and validations
- New indicators and breakdowns:
 - To replace existing indicators in a few cases
 - To supplement existing breakdowns
 - To enhance indicator development for B4 (Social participation) and B5 (Local environment)
- Focusing on most vulnerables
- Contextual indicators

B. Monitoring and reporting

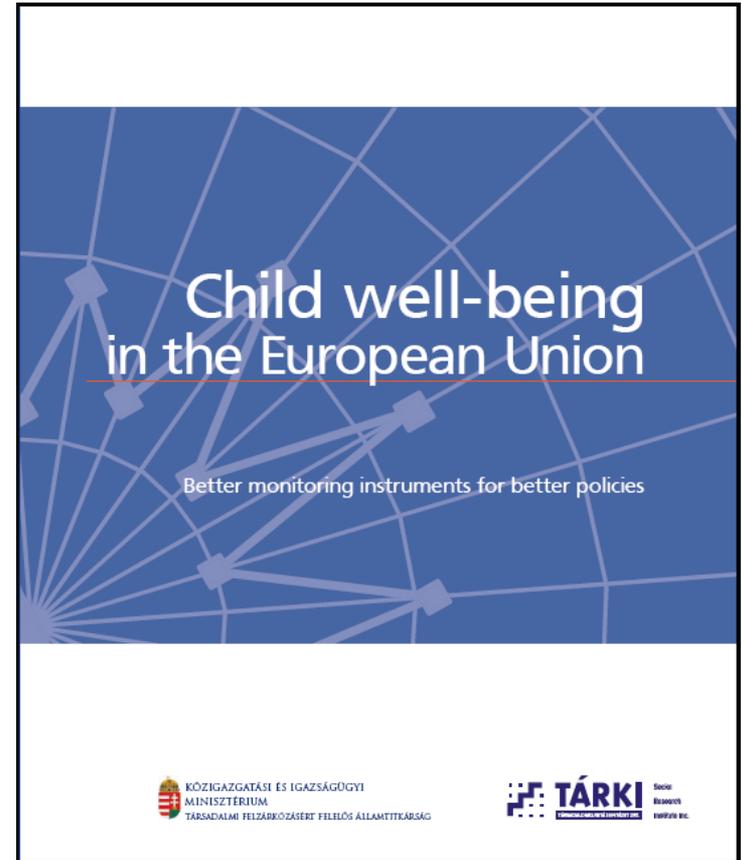
- To minimise the overlap between **existing analytical frameworks**
 - Both suggested instruments are in line with other Social OMC instruments
 - EU-Task Force analytical framework (updated by TÁRKI-Applica 2010 and TÁRKI 2011)
 - Joint Assessment Framework, developed by the ISG in connection with the Europe 2020 poverty target monitoring process
- To upgrade **suggested instruments**, to refine and calibrate methods, to fill in data gaps
- To improve the selection of **lead indicators**
- To improve professional control

C. Further exploration of the data infrastructure

- to ensure continuous access to relevant micro datasets (HBSC, ESPAD, PISA, PIRLS)
- a need for data on migrant and minority ethnic groups (incl. Roma) and on the most vulnerable
- more reliance on panel data and on the harmonisation of administrative data

Thank you

www.tarki.hu



Methodological details – rel. perf.

- Country ranking
 - Weighted Average = $(3*N_{\text{VERY HIGH}} + 2*N_{\text{HIGH}} + 1*N_{\text{MOD. HIGH}} + 0*N_{\text{AVERAGE}} + (-1)*N_{\text{MOD. LOW}} + (-2)*N_{\text{LOW}} + (-3)*N_{\text{VERY LOW}})/N_{\text{items}}$
- The ranking exercise excludes:
 - A1.3: persistently poverty; B1.2: Low reading lit. perf. of pupils aged 10; B2.3: Exclusive breastfeeding
 - Poor data availability.
 - A2.1: material deprivation; A4.1: Children in jobless hhs; A2.2a-c: Vaccination in children
 - To avoid double-weighting.
- Dimension-level aggregate measures: material well-being, education, health and risk-behaviour
 - unweighted sum of individual item z-scores