

*The Fourth Annual  
Life in Kyrgyzstan Conference 2018*

**Social Cohesion Measurement in  
Kyrgyzstan: Methodological Study on  
Stability of Indicators and  
Determinants Across Time and  
Geography**

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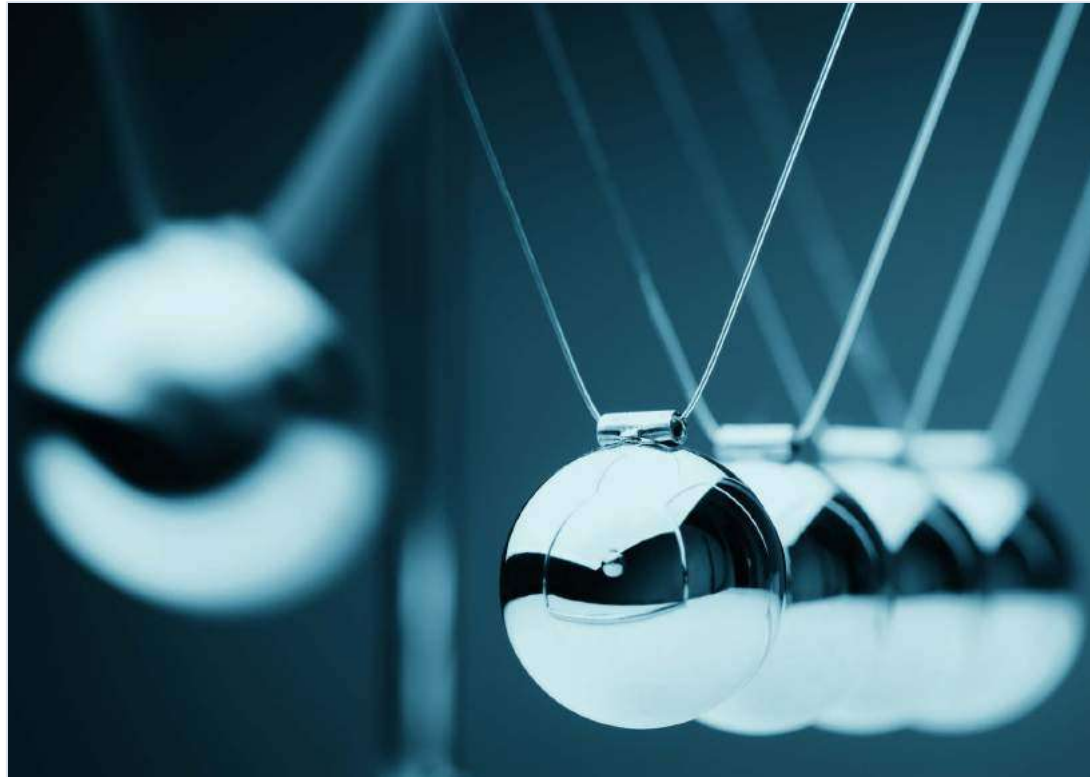
17-18 October 2018

Bishkek

# Overview

1. Social cohesion index
2. Data sources and the results from the study
3. Stability of indicators based on exploratory factor analysis
4. Stability of social cohesion determinants
5. Relevance of indicators to the Kyrgyz case
6. Concluding remarks

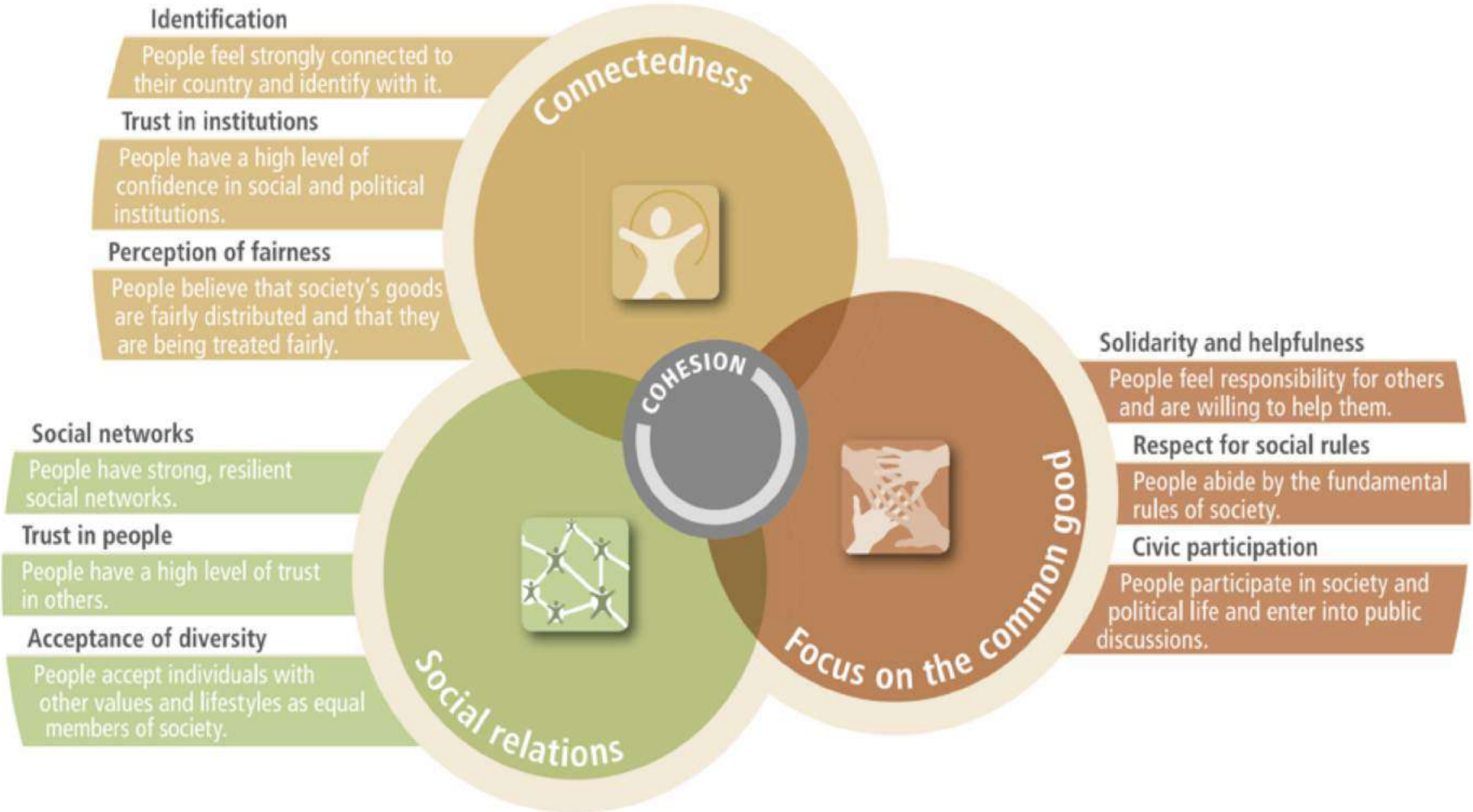
# 1. Social cohesion index



# Concept of Social Cohesion Radar

- *Quality of interactions among members of community*
- Three domains
  - Resilient **social relations**
  - Positive emotional **connectedness** to community
  - Pronounced **focus on common good**
- Possible causes or effects
  - Wealth, inequality, ethnic diversity, values
  - Well-being
- Distinction between the determinants, components, and consequences of cohesion

# Social Cohesion Index: Three Domains, Nine Dimensions



# **Domain 1. Social relations**

## **1.1 Social networks**

- People have strong and resilient social networks
  - Support from friends/acquaintances when people need help
  - Strong friendship circles

## **1.2 Trust in People**

- People have a high level of trust in others
  - e.g. People mostly trust others: including strangers

## **1.3 Acceptance of Diversity**

- Accept individuals with other values/lifestyles, equal in society
  - People are willing to have neighbors who are different from them

# **Domain 2. Connectedness**

## **2.1 Identification**

- Strong connection to geopolitical entity; identify with it
  - People feel like they are part of their neighborhood, city, country.

## **2.2 Trust in Institutions**

- High level of confidence in social and political institutions
  - People trust politicians, institutions, administrations, councils, etc.

## **2.3 Perception of Fairness**

- Believe that society's goods are fairly distributed; treated fairly
  - People feel like their income is fair in comparison to others
  - People feel like politicians take care of their community

# **Domain 3. Focus on the common good**

## **3.1 Solidarity and Helpfulness**

- Feel responsibility for others and willing to help them
  - People take care of their elderly neighbors in need

## **3.2 Respect for Social Rules**

- Abide by the fundamental rules of society
  - People feel safe in their communities

## **3.3 Civic Participation**

- Participate in society/political life; public discussions
  - People are active members of local groups or initiatives



# Construction of the social cohesion index

Indicator selection...

...through face validity and exploratory factor analysis:  
41 indicators, 3-8 per dimension in baseline

Scale standardization from 0 to 10

Aggregation from individual level...

...to the level of population points and regions

Measurement of dimensions...

...average of respective indicators per dimension

Formative measurement of social cohesion...

...for the composite index and the three domains

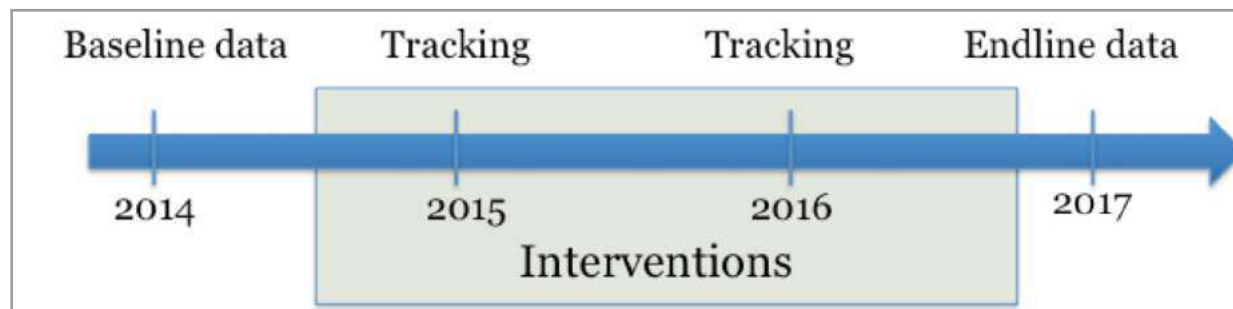
## **2. Data sources and the results from the baseline study**

# Data source

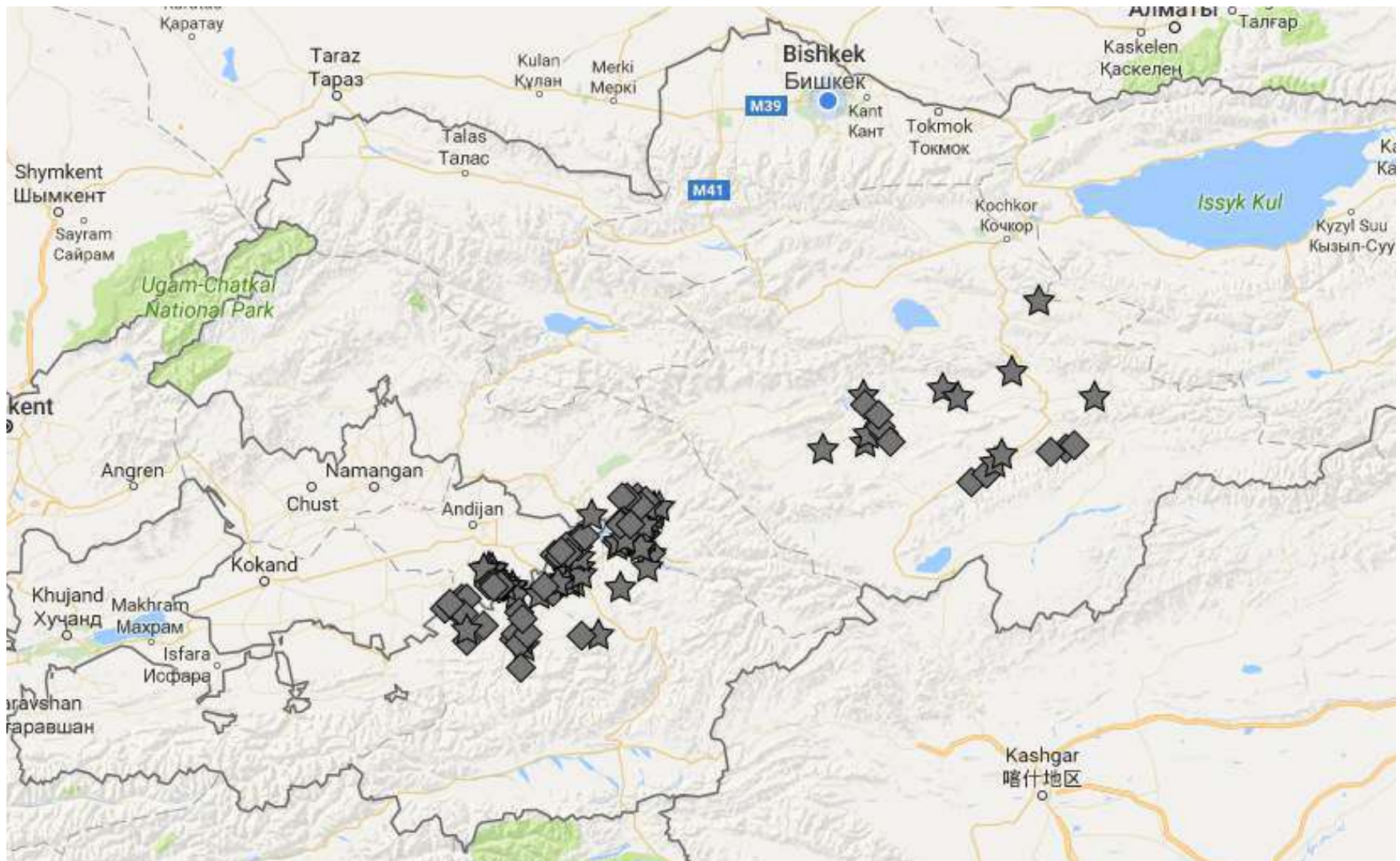
- Quantitative panel survey data collection at baseline, midline, and end-line (2014, 2016, 2017)
- Individual, household, and community data

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	Total	Control	Pilot
Ayil aimaks	30	15	15
Villages (aiyls)	137	73	64
Households	1,982	783	1,199
Individuals	6,343	2,508	3,835
Youth	866	340	526



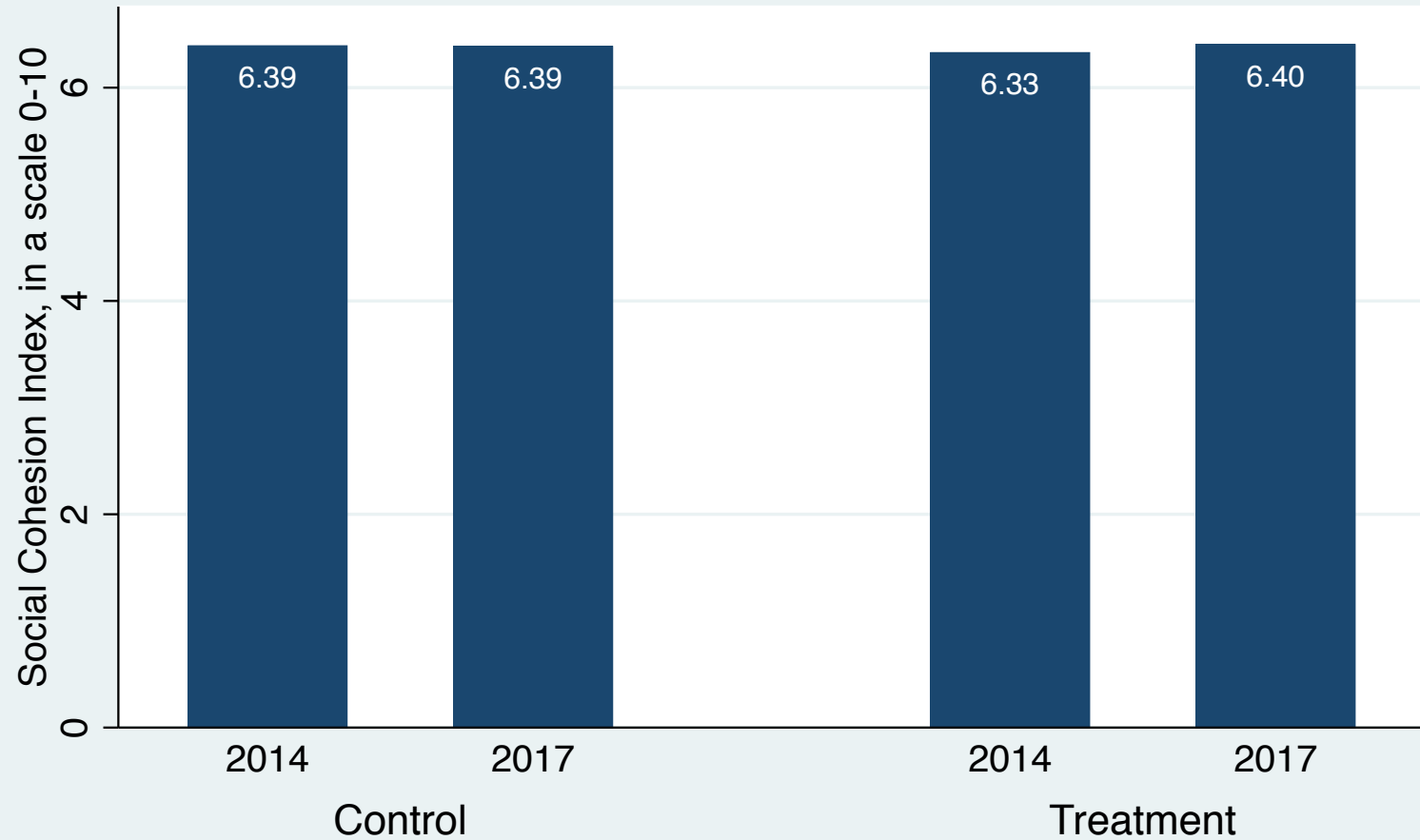
# Geography of the sample communities



# Results

## Social Cohesion Index

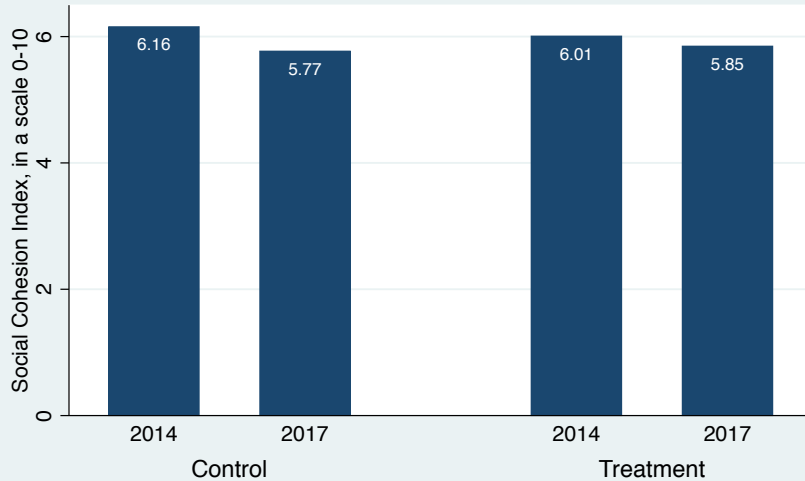
based on data collected in 2014 and 2017



Source: Social Cohesion Project Surveys, 2014-2017

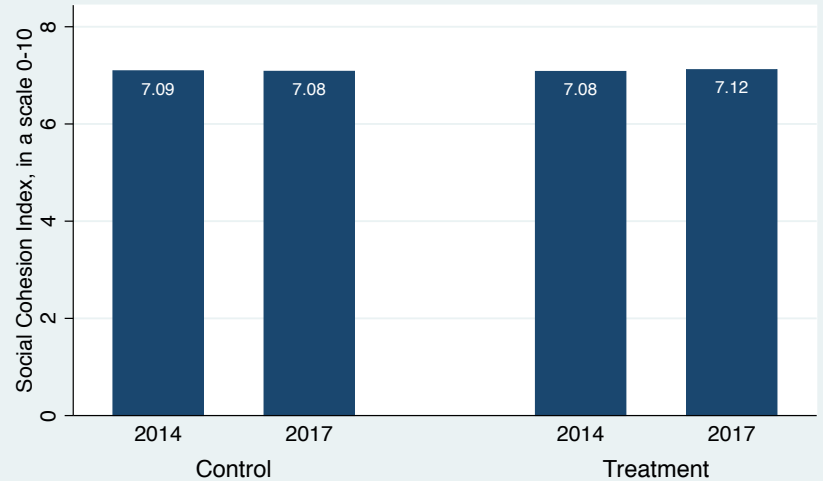
# Results by dimensions

Social Cohesion Index  
Domain 1: Social Relations



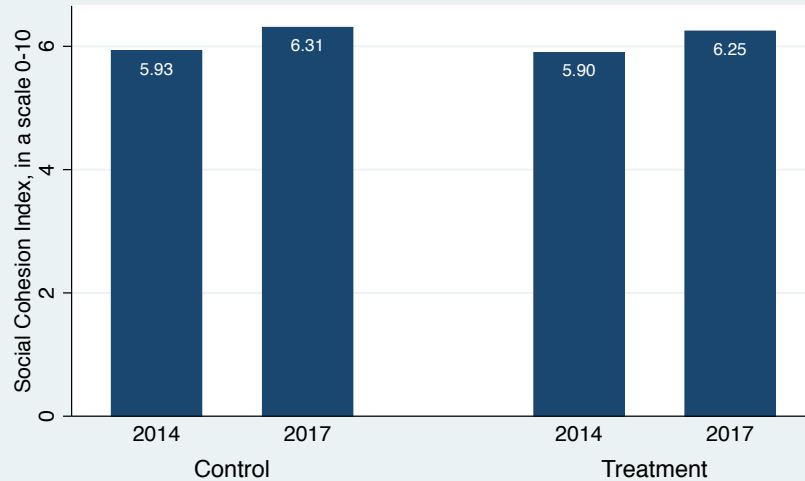
Source: Social Cohesion Project Surveys, 2014-2017

Social Cohesion Index  
Domain 2: Connectedness



Source: Social Cohesion Project Surveys, 2014-2017

Social Cohesion Index  
Domain 3: Focus on the Common Good

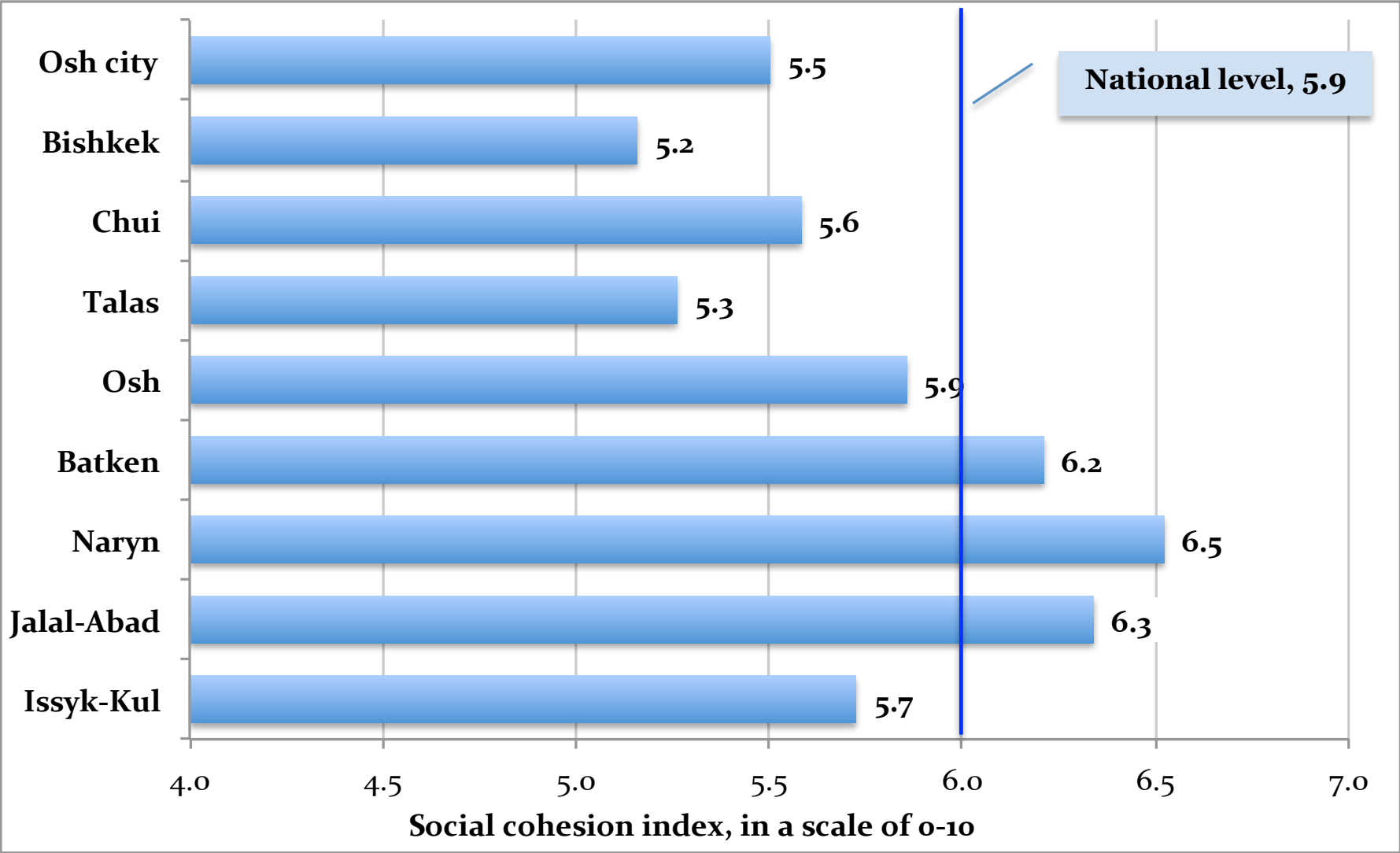


Source: Social Cohesion Project Surveys, 2014-2017

# Overall Index and Dimensions at Baseline

Treatment	Sub-district	SoCo index	D1	D1.1	D1.2	D1.3	D2	D2.1	D2.2	D2.3	D3	D3.1	D3.2	D3.3
Pilot	Ak Chiy	6.9	6.2	3.0	7.3	8.4	7.8	9.7	7.0	6.7	6.5	6.1	7.7	5.8
Pilot	Jerge-Tal	5.7	5.0	2.4	6.1	6.4	7.7	9.9	6.4	6.6	4.5	2.7	4.9	5.8
Pilot	Kok-Jar	6.2	5.2	2.0	5.4	8.4	6.8	9.8	5.5	5.3	6.4	4.8	9.1	5.3
Pilot	Ak-Kuduk	5.5	5.1	3.1	5.8	6.5	5.8	7.5	4.8	5.0	5.5	5.3	5.4	5.9
Pilot	Kara-Suu	6.4	6.0	3.8	6.3	7.8	6.4	7.8	5.1	6.3	6.8	5.5	9.4	5.6
Pilot	Anarov	6.4	6.0	2.7	7.5	7.8	7.7	9.2	7.2	6.6	5.5	3.1	7.9	5.6
Pilot	Tepe-Korgon	6.1	5.8	2.6	7.4	7.4	6.9	8.3	6.6	5.9	5.7	4.2	7.4	5.4
Pilot	Yusupov	5.8	5.5	2.6	6.9	7.0	6.3	7.3	6.0	5.7	5.6	5.0	6.9	4.9
Pilot	Don Bulak	6.9	6.5	3.7	7.5	8.2	7.5	9.3	6.1	7.3	6.6	5.2	8.2	6.2
Pilot	Zarger	6.2	5.9	2.9	7.2	7.5	7.0	9.0	6.4	5.7	5.7	4.4	7.2	5.4
Pilot	Karool	6.1	6.3	3.5	8.1	7.2	7.1	8.9	6.8	5.5	4.9	2.6	5.6	6.6
Pilot	Kara-Tash	6.7	6.9	5.8	7.3	7.5	6.4	8.2	5.2	5.9	6.9	3.9	9.5	7.2
Pilot	Mady	6.4	6.2	3.7	7.7	7.3	7.2	8.8	6.4	6.5	5.7	3.8	7.1	6.3
Pilot	Otuz-Adyr	6.3	5.9	3.0	7.1	7.7	7.1	8.8	5.9	6.5	6.0	3.9	8.3	5.8
Control	Baetovo	6.4	6.2	2.9	7.3	8.4	7.7	9.5	7.3	6.3	5.4	4.9	7.2	4.3
Control	Terek	6.9	6.5	2.7	8.3	8.5	8.0	9.5	7.5	7.0	6.4	6.2	7.8	5.1
Control	Ugut	6.3	5.4	4.0	5.5	6.6	7.0	9.9	4.7	6.3	6.5	5.4	7.5	6.6
Control	Taldy-Suu	6.2	5.4	2.7	6.5	7.0	7.6	9.5	6.6	6.7	5.7	3.1	6.8	7.2
Control	Kazybek	6.1	5.2	3.5	5.5	6.7	6.5	7.6	6.6	5.4	6.4	6.1	6.1	7.2
Control	Too-Moiun	6.9	6.8	3.8	8.1	8.6	7.6	8.5	6.8	7.5	6.1	3.7	8.4	6.3
Control	Chek-Abad	5.3	5.5	3.1	6.7	6.7	6.1	7.2	5.9	5.2	4.4	2.5	6.5	4.1
Control	Tort-Kol	6.0	6.2	3.9	7.7	6.9	6.7	8.7	5.4	6.1	5.1	2.9	5.9	6.4
Control	Iyri-Suu	6.5	6.2	2.8	7.9	7.8	7.1	8.0	6.5	6.8	6.3	4.4	8.2	6.4
Control	Changet	6.8	6.3	2.8	8.5	7.5	7.7	8.6	7.4	7.0	6.4	4.1	8.1	6.8
Control	Jany-Nookat	7.1	7.0	4.5	8.3	8.1	7.2	8.9	7.0	5.7	7.1	4.3	9.6	7.4
Control	Mirmahmudov	6.9	6.9	4.8	7.7	8.2	7.3	8.7	7.0	6.3	6.5	3.2	9.5	6.8
Control	Ak-Tash	6.4	6.1	2.4	7.8	8.1	7.0	8.0	5.9	7.2	6.0	3.7	8.8	5.5
Control	Sarai	6.2	6.0	3.1	7.1	7.8	6.7	8.4	5.8	5.8	5.9	4.3	7.1	6.2
Control	Savai	6.6	6.1	3.2	7.2	7.8	7.4	7.8	7.4	7.1	6.3	4.4	8.4	6.1
Control	Kenesh	7.1	6.8	4.3	7.5	8.6	7.2	7.9	6.6	7.1	7.2	4.2	9.8	7.6
	<b>Average</b>	<b>6.4</b>	<b>6.0</b>	<b>3.3</b>	<b>7.2</b>	<b>7.6</b>	<b>7.1</b>	<b>8.6</b>	<b>6.3</b>	<b>6.3</b>	<b>6.0</b>	<b>4.3</b>	<b>7.7</b>	<b>6.1</b>

# Social Cohesion Index: Regional Differences



Source: Life in Kyrgyzstan Survey 2016



### **3. Stability of indicators of the social cohesion index**



# Choice of Indicators

- According to face validity
  - Agreement among team members
- Application of exploratory factor analysis (EFA)
  - Criteria
    - Loading  $\geq 0.40$  (or  $\geq 0.25$  in extreme cases)
    - Cronbach's alpha  $\geq (0.10 * \text{number of indicators})$

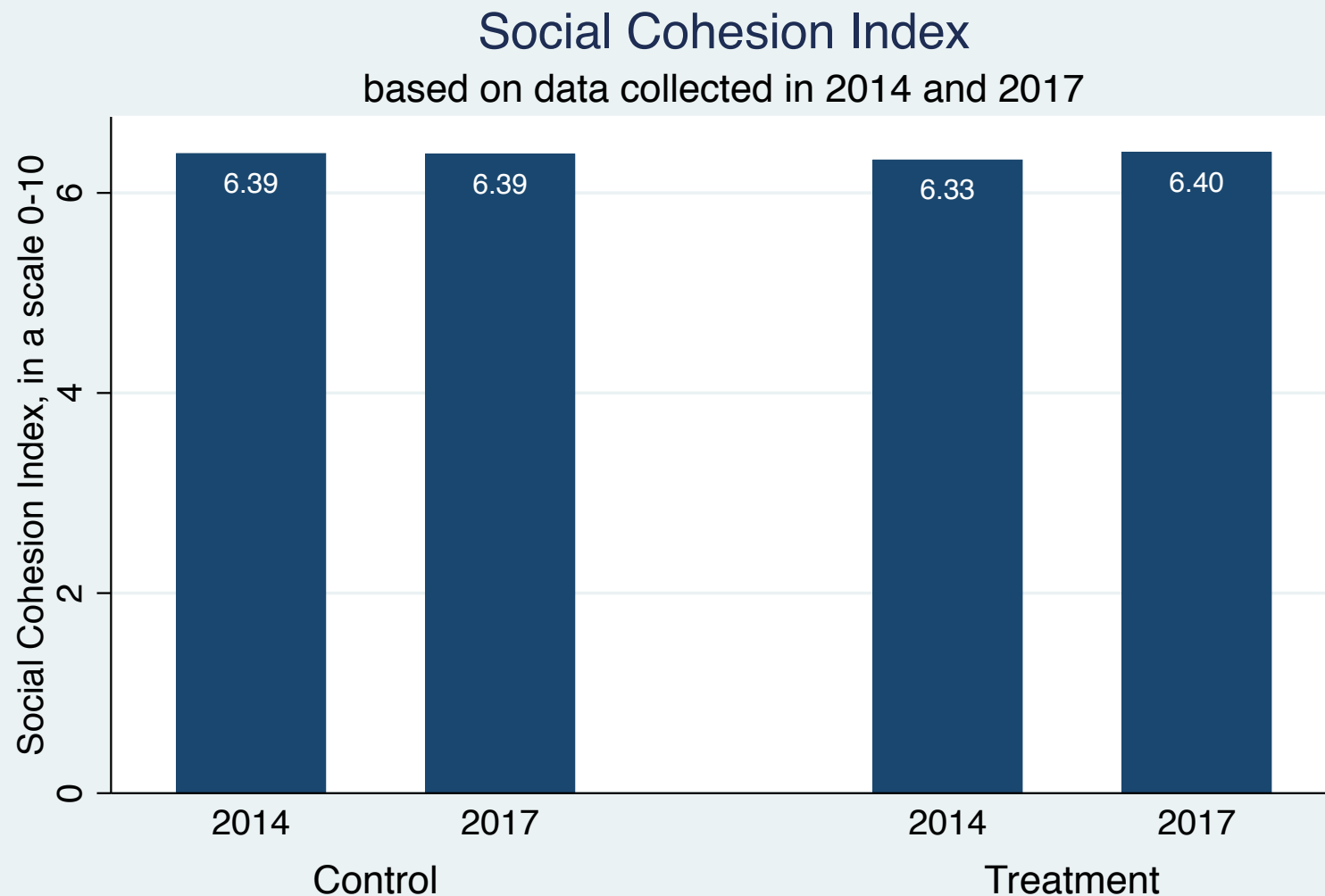
# EFA for 1.2: Trust in people

	Loading at BL	Loading at EL
In general, you can trust people	0.487	
Trust neighbors	0.487	0.839
Trust people in your village	0.756	0.664
Trust people from your own ethnic or linguistic group	0.830	0.372
Trust people from other ethnic or linguistic groups	0.796	
People in this community trust each other in lending and borrowing money		0.387
Trust family members		0.552
<b>ALPHA</b>	<b>0.824</b>	<b>0.690</b>
# of indicators	5	5
<i>Alpha value per indicator</i>	<i>0.165</i>	<i>0.138</i>

# EFA for 3.1: Solidarity and Helpfulness

Indicators	Loading at BL	Loading at EL
Most people in this community are willing to help if you need it.	0.312	
To how many people did you give any financial help?	0.703	0.498
To how many people did you give any non-financial help?	0.639	0.729
Have you contributed working in an ashar		0.242
ALPHA	0.419	0.429
# of indicators	3	3
Alpha value per indicator	0.140	0.143

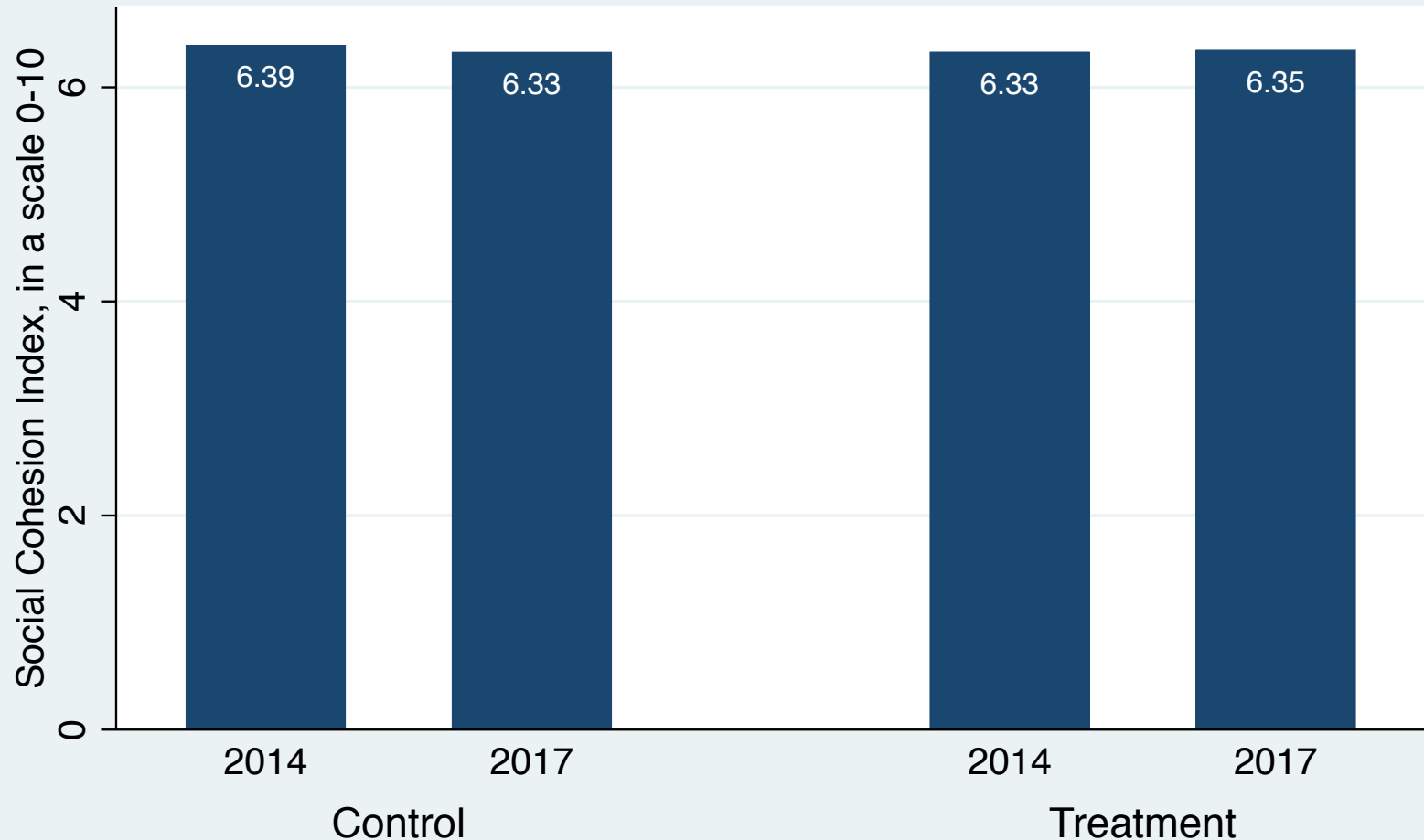
# Results without EFA



Source: Social Cohesion Project Surveys, 2014-2017

# Results with EFA

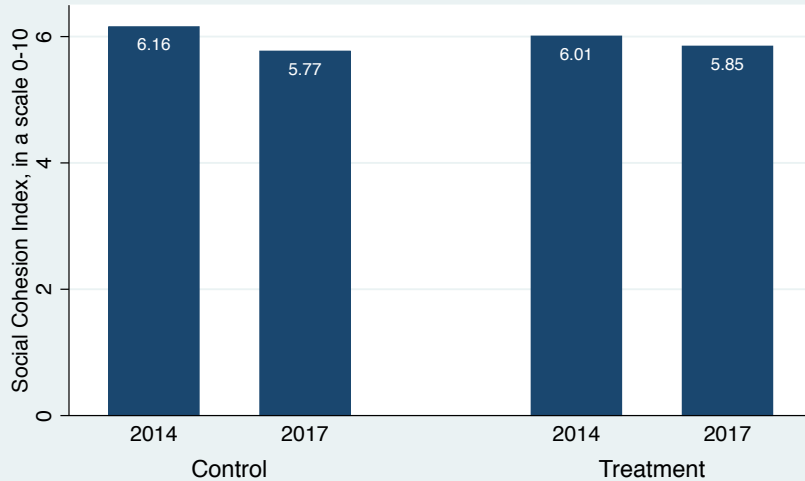
Social Cohesion Index  
based on data collected in 2014 and 2017



Source: Social Cohesion Project Surveys, 2014-2017

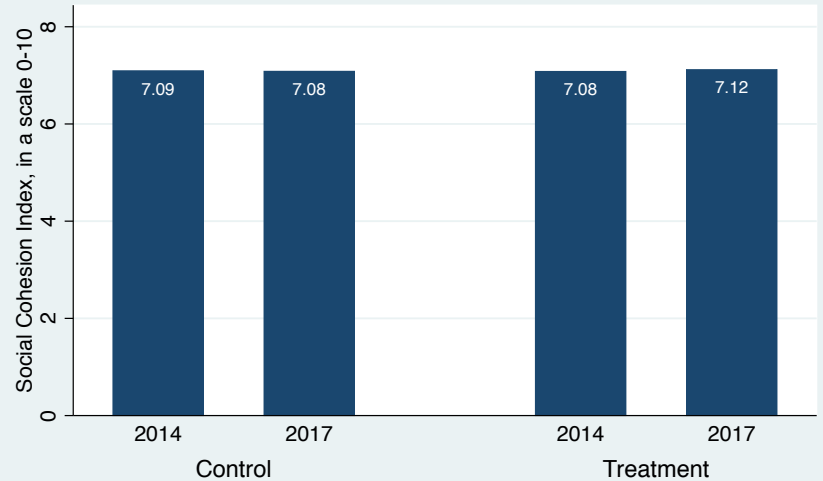
# Results by domains w/o EFA

Social Cohesion Index  
Domain 1: Social Relations



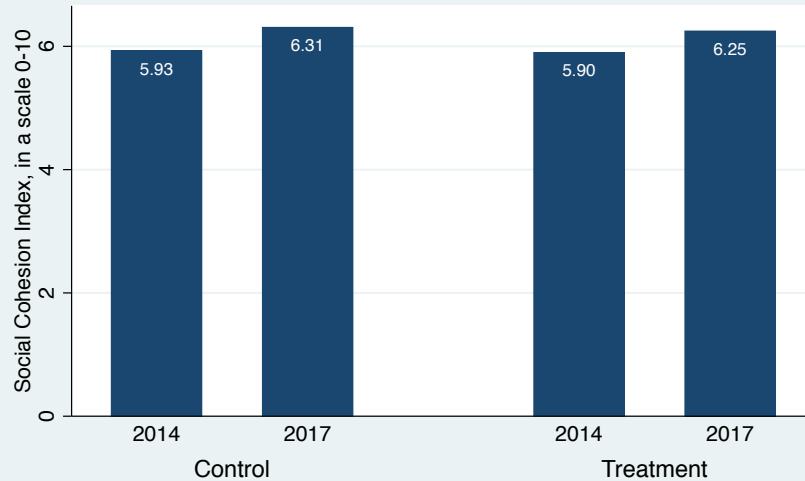
Source: Social Cohesion Project Surveys, 2014-2017

Social Cohesion Index  
Domain 2: Connectedness



Source: Social Cohesion Project Surveys, 2014-2017

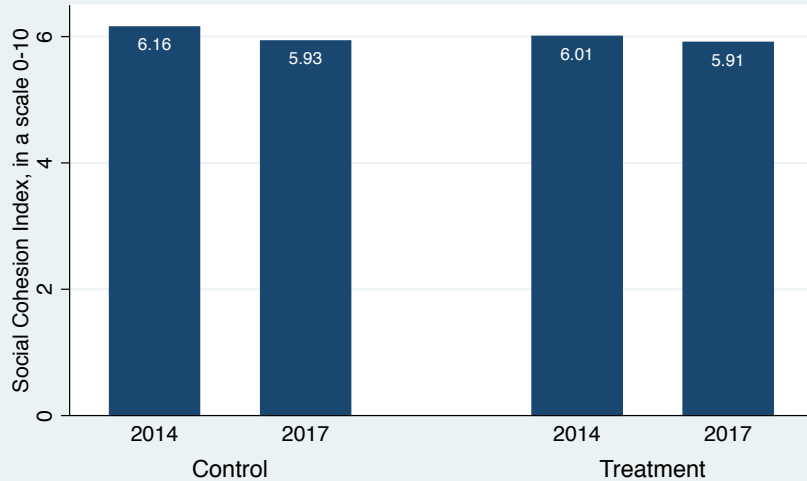
Social Cohesion Index  
Domain 3: Focus on the Common Good



Source: Social Cohesion Project Surveys, 2014-2017

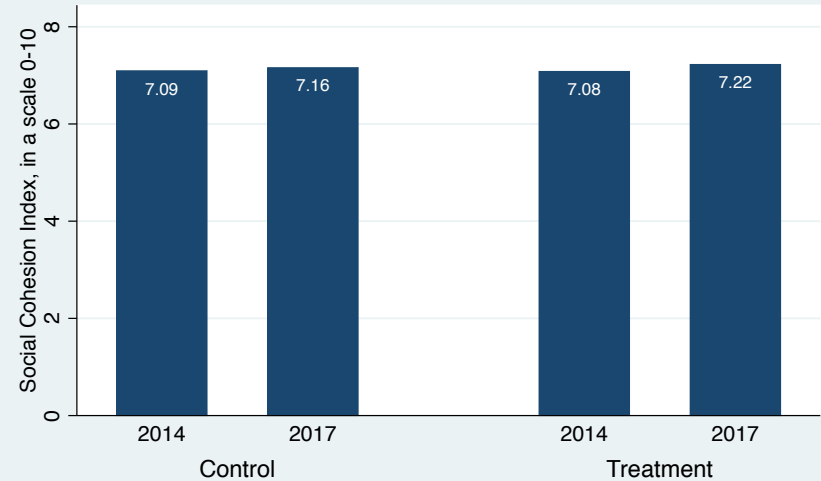
# Results by domains with EFA

Social Cohesion Index  
Domain 1: Social Relations



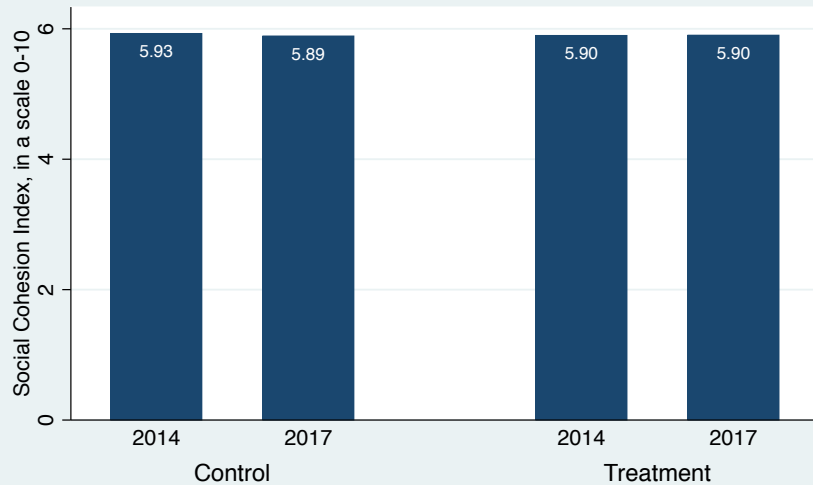
Source: Social Cohesion Project Surveys, 2014-2017

Social Cohesion Index  
Domain 2: Connectedness



Source: Social Cohesion Project Surveys, 2014-2017

Social Cohesion Index  
Domain 3: Focus on the Common Good



Source: Social Cohesion Project Surveys, 2014-2017



# **4. Stability of determinants of social cohesion**

# Correlations at local and national levels

Determinants	Corr, BL 2014		Corr, LiK 2016	
Proportion who are employed	0.573	***	-0.074	
Percentage of 16-17 year olds attending 10-11 <sup>th</sup> grade	0.385	**	0.130	
Proportion of main routes to communities paved	0.343	*	...	
Proportion of households with mobile phones	0.438	**	-0.093	
Frequency of disruption to electricity supply	-0.346	*	-0.132	
Household size	0.319	*	0.053	
Number of languages of communication	0.495	***	0.183	
Satisfaction with household's standard of living	0.480	***	0.233	**
Satisfaction with health	0.310	*	0.096	
* p < 0.10, ** p < 0.05, *** p < 0.01				

# **5. Relevance of indicators to the local context**

# Motivation

- Social cohesion is understood differently across countries and cultures.
- Standard approach helps to compare countries
- But, localization of indicators is also important to be relevant for outcome

# Example of Social Networks

- A low score in “Social networks” dimension: 3.3 out of 10, the lowest score out of 9 dimensions
- But, people in Kyrgyzstan invest a lot in social capital and networks
- Are we capturing nature and quality of formal and informal networks fully and up to the context?
- Questions we ask in the social cohesion surveys in Kyrgyzstan:
  - *How many people can lend you now 2,000 soms?*
  - *Participation in groups and activities (membership in trade unions, and community, cultural, sport, religious groups).*

# Suitability of indicators

- Less problematic dimensions:
  - 1.2 Trust in people
  - 1.3 Acceptance of Diversity
  - 2.1 Identification
  - 2.2 Trust in Institutions
- Better measurement to be done on dimensions:
  - 1.1 Social Networks
  - 2.3 Perception of Fairness
  - 3.1 Solidarity and Helpfulness
  - 3.2 Respect for social rules
  - 3.3 Civic Participation

# Summary

- This research contributes to the literature on social cohesion measurement
- We find that the indicators of social cohesion in Kyrgyzstan tend to change over short period of time, but do not affect much the aggregate results
- Determinants of social cohesion are different at national and local levels
- The index needs more tailoring to the local context as some dimensions are not localized well enough
- Social cohesion indicators will remain a part of the future LiK data collection

# Thank you!

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