Statistics Korea
Statistics Research Institute

Quality of Life(QoL) Indicators in KOREA

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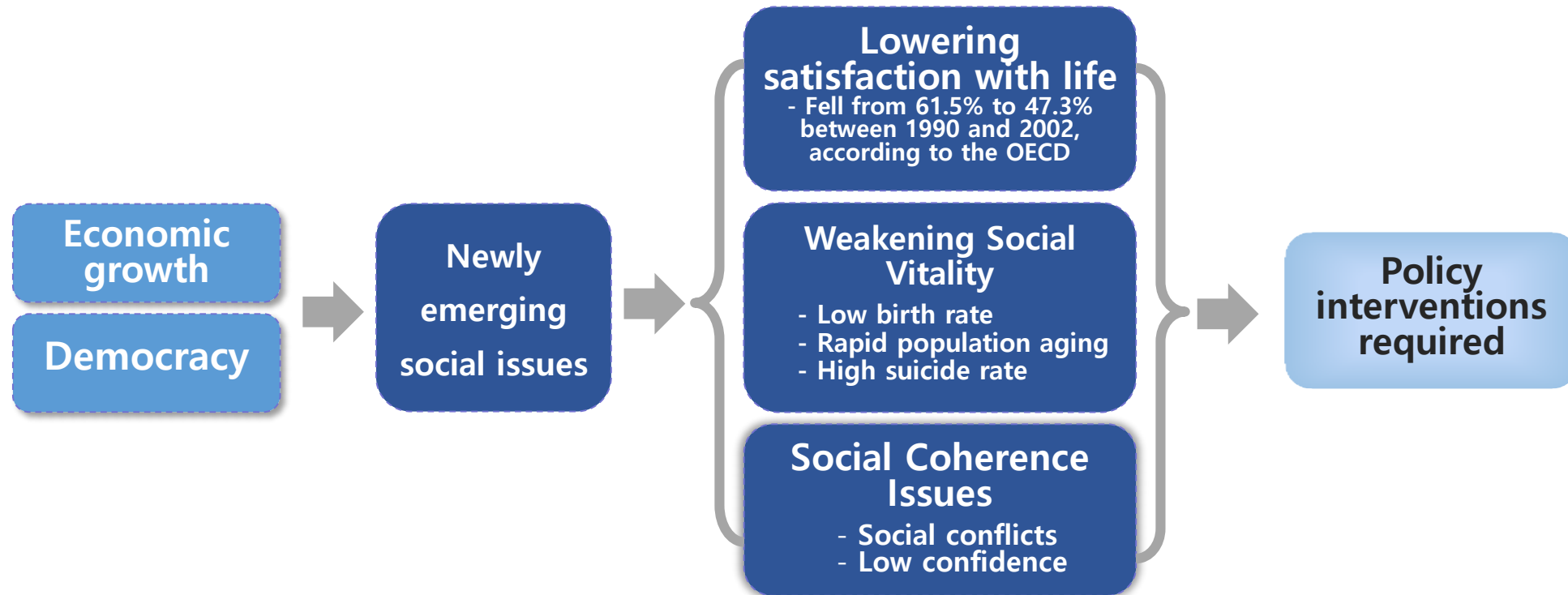
Statistics Korea, Statistic Research Institute

CONTENTS

I

Background

Domestic Circumstances

↳ Despite of successful economic growth and democracy, Korean society was faced with emerging social issues

Economic growth

Democracy

→

Newly emerging social issues

→

Lowering satisfaction with life
- Fell from 61.5% to 47.3% between 1990 and 2002, according to the OECD

Weakening Social Vitality
- Low birth rate
- Rapid population aging
- High suicide rate

Social Coherence Issues
- Social conflicts
- Low confidence

→

Policy interventions required

◖ **International circumstances: gaining momentum of measuring well-being**
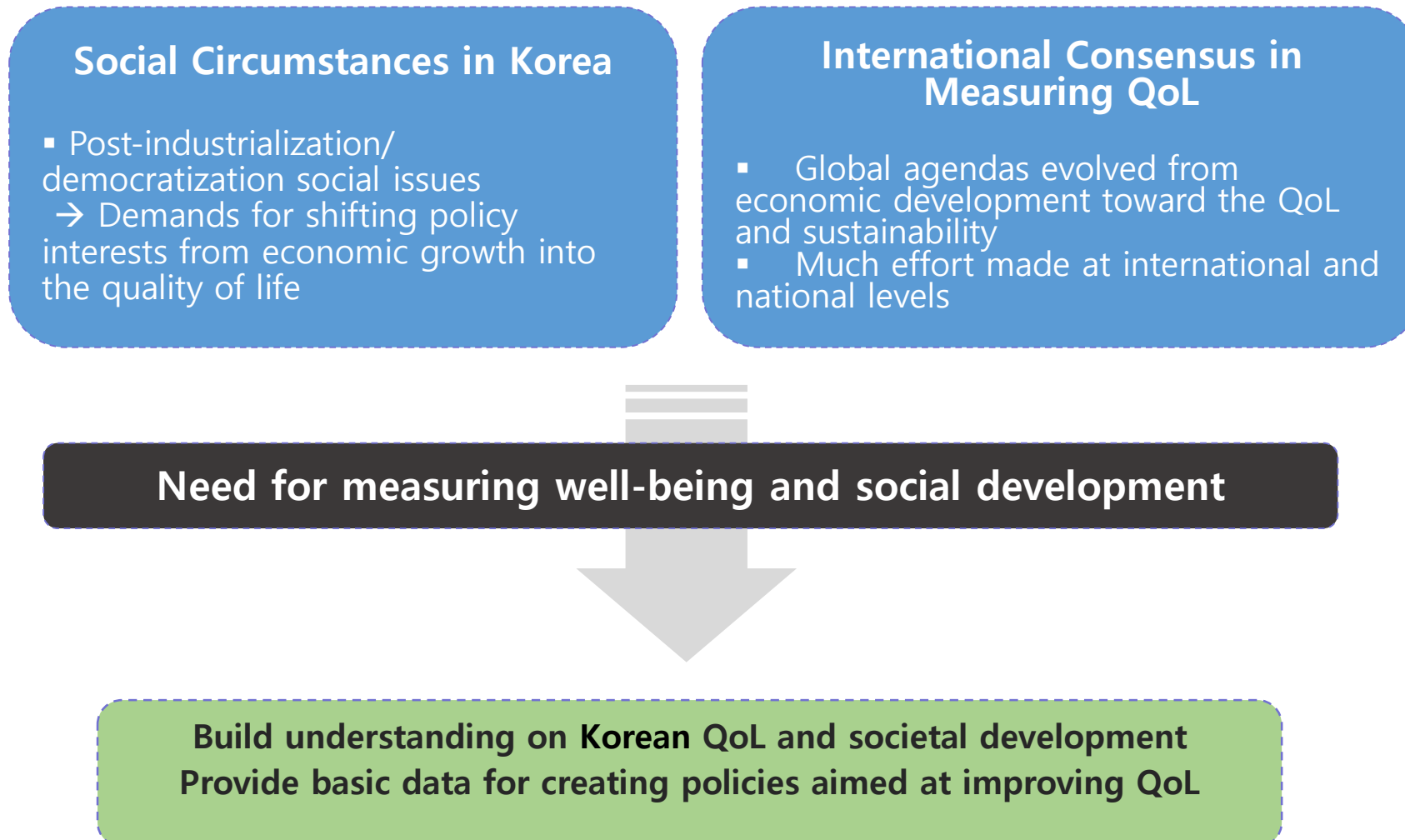
⤵ **Growing awareness**

- The focus shifting from the economic growth into the QoL and environment since 90's

  - Growing recognition of the importance of QoL and sustainability

  - Need for overcoming the limitations of the GDP and its economic focus

⤵ **International and National Efforts**

- The OECD Global Project (2004)→3ʳᵈ World Forum in Busan (2009)→ BLI Report (2011)

- The Report of Stiglitz Commission (2009)

- Country Cases

  - Canada – CIW (Canadian Index of Wellbeing)
  - Australia – MAP (Measures of Australia's Progress)
  - Britain – MNWB (Measuring National Well-being)
  - Japan – MNWB (Measuring National Well-being)

  - Bhutan – GNH (Gross National Happiness)
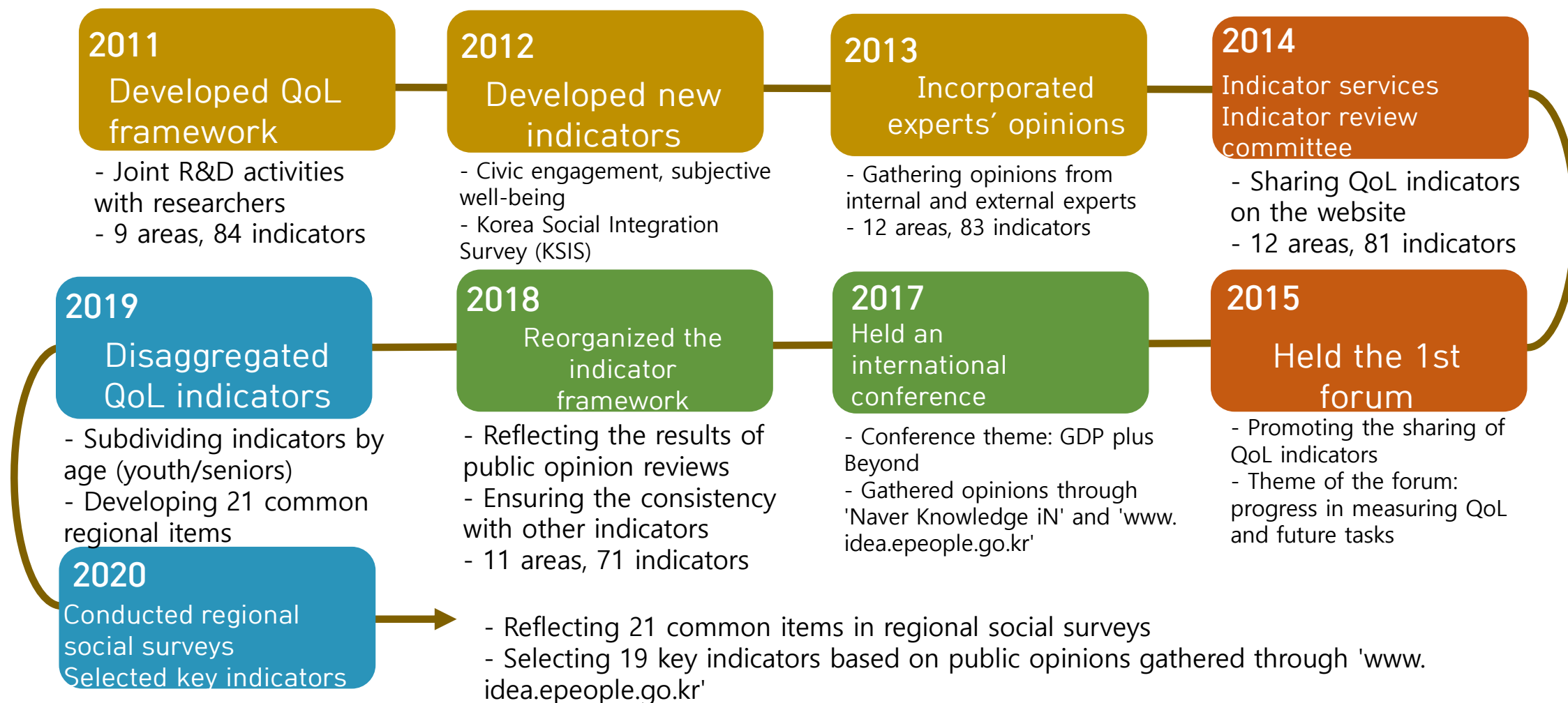 - Italy – BES (Benessere Equo e Sostenible)
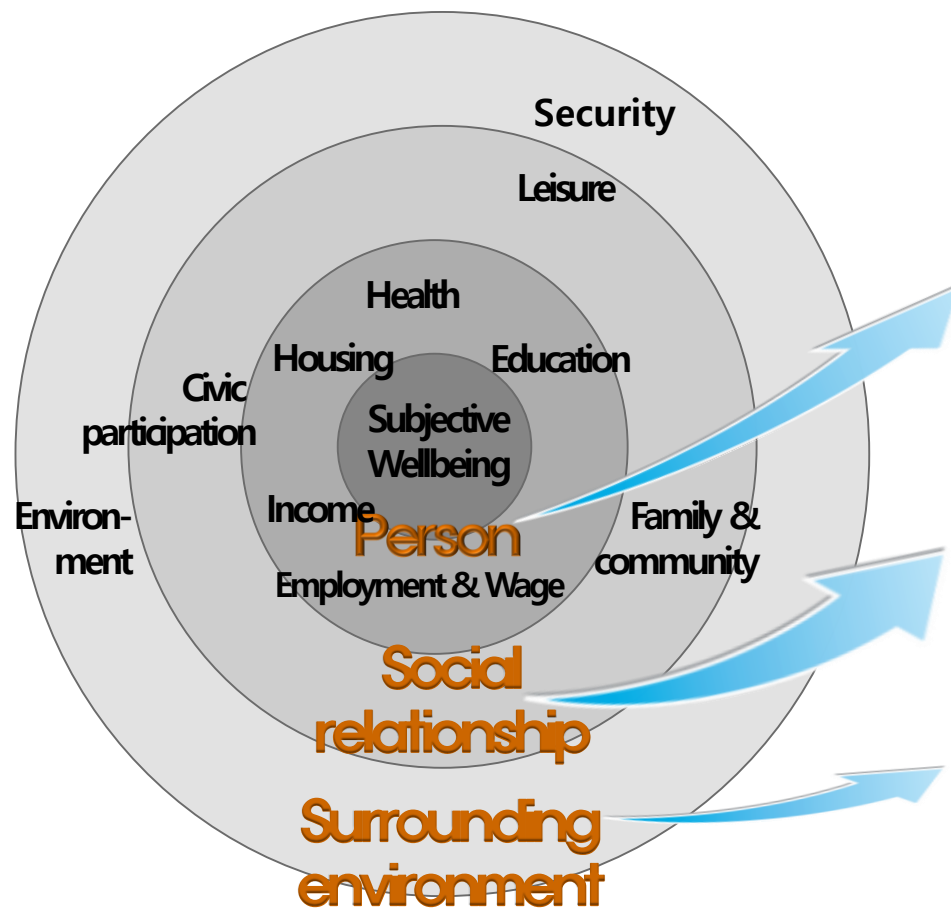 - Mexico
  - Portugal

Social Circumstances in Korea

▪ Post-industrialization/ democratization social issues
→ Demands for shifting policy interests from economic growth into the quality of life

International Consensus in Measuring QoL

▪ Global agendas evolved from economic development toward the QoL and sustainability
▪ Much effort made at international and national levels

Need for measuring well-being and social development

Build understanding on Korean QoL and societal development
Provide basic data for creating policies aimed at improving QoL

II

Progress

➡️ **What We've Achieved So Far**

2011
Developed QoL framework
- Joint R&D activities with researchers
- 9 areas, 84 indicators

2012
Developed new indicators
- Civic engagement, subjective well-being
- Korea Social Integration Survey (KSIS)

2013
Incorporated experts' opinions
- Gathering opinions from internal and external experts
- 12 areas, 83 indicators

2014
Indicator services Indicator review committee
- Sharing QoL indicators on the website
- 12 areas, 81 indicators

2019
Disaggregated QoL indicators
- Subdividing indicators by age (youth/seniors)
- Developing 21 common regional items

2018
Reorganized the indicator framework
- Reflecting the results of public opinion reviews
- Ensuring the consistency with other indicators
- 11 areas, 71 indicators

2017
Held an international conference
- Conference theme: GDP plus Beyond
- Gathered opinions through 'Naver Knowledge iN' and 'www.idea.epeople.go.kr'

2015
Held the 1st forum
- Promoting the sharing of QoL indicators
- Theme of the forum: progress in measuring QoL and future tasks

2020
Conducted regional social surveys Selected key indicators
- Reflecting 21 common items in regional social surveys
- Selecting 19 key indicators based on public opinions gathered through 'www.idea.epeople.go.kr'

⮕ **QoL Measurement Mandala:** 3 dimensions, 11 areas

Security

Leisure

Health

Housing Education

Civic participation

Subjective Wellbeing

Environ-ment

Income

Family & community

Person

Employment & Wage

Social relationship

Surrounding environment

Dimensions	Targets	Specifications
Person	Capable and empowered individuals	Each individual will: • Have education to acquire knowledge and work ability; • Benefit from economic comforts and social assurance; and • Enjoy a healthy life.
Social Relationship	Active and caring communities	Communities will: • Cultivate social coherence; • Foster civic engagement; and • Provide leisure activities and cultural experience.
Environment	Safe and sustainable environment	The environment will be: • Free from dangers; and • Protected for a sustainable living.

➔ Criteria for Selecting Indicators

Data Quality

- **Official Statistics**
- Coverage
- Time-series

Relevance

- **Face Validity**
- **Output orientation**
- **Understandability**
- **Policy responsiveness**
- **Relevant to National context**

Impartiality

- **Not influenced by political orientation**

➲ Summary of Korean QoL Indicators : 11 dimensions, 71 indicators

Dimension	Objective indicator (42)	Subjective indicator (29)
Family and Community (3, 2)	live-alone elderly rate, participation rate in social institutions, social isolation	family relationship satisfactory index, sense of belonging to a community
Health (5, 2)	life expectancy, healthy life expectancy, obesity rate, suicide rate, physical activity rate	self-reported health, stress self-recognition Index
Education (3, 3)	pre-school enrollment rate, population with tertiary education, employment rate of college graduates	efficiency of school education, school life satisfaction index, degree of education cost burden
Employment and Wage (5, 1)	employment rate, unemployment rate, average earned income of workers(real), working time, proportion of low-paid workers	job satisfaction index
Income, Consumption, Wealth (5, 2)	GNI per capita(real), equalized median income(real), household net financial wealth(real), relative poverty rate, household debt rate	income satisfaction index, consumption satisfaction index
Leisure (4, 2)	leisure time, travel days per person, participation in culture-art-sports event, ratio of consumption expenditure on cultural or leisure activities	leisure satisfaction index, leisure time satisfaction index
Housing (5, 1)	living space per capita, dwelling without basic facilities, commuting time to office, rent to income ratio, home-ownership rate	housing environment satisfaction index
Environment (3, 6)	air pollution(PM2.5), public park size per person in a city, water supply of rural area	climate change recognition index, air quality satisfaction index, water quality satisfaction index, soil satisfaction index, noise satisfaction index, green environment satisfaction index
Safety (7, 2)	homicide rate, crime victimization rate, child abuse rate, road casualty rate, safety accident-induced child death rate, industrial accident mortality, number of fire fatalities	society safety evaluation, feeling safe walking alone at night
Civic Engagement (2, 5)	voting rate, voluntary work participation rate, civic consciousness	perception of political empowerment, corruption recognition, interpersonal trust, trust on authorities
Subjective Wellbeing (0, 3)		life satisfaction index, positive emotions, negative emotions

➡ **Showing recent trends**

🙂 **Improvement** The recent measure indicates an improved QoL compared to the previous one.
$X_t - X_{t-1} > 0$

😐 **No change** The recent QoL measure is the same as the previous measure.
$X_t - X_{t-1} = 0$

☹ **Deterioration** The recent measure indicates a worse QoL compared to the previous one.
$X_t - X_{t-1} < 0$

➡ **Key Indicators: 19**

Domain	Indicators
Family and Community	social isolation
Health	life expectancy, suicide rate
Education	school life satisfaction index
Employment and Wage	employment rate, unemployment rate
Income, Consumption, Wealth	GNI per capita(real), relative poverty rate
Leisure	leisure time, leisure satisfaction index

Domain	Indicators
Housing	dwelling without basic facilities, rent to income ratio
Environment	air pollution(PM2.5), water quality satisfaction index
Safety	feeling safe walking alone at night, , industrial accident mortality, road casualty rate
Civic Engagement	corruption recognition
Subjective Wellbeing	life satisfaction index

III

Results

Dashboard(Mar. 2022)

Health
- 😊 life expectancy^
- 😊 healthy life expectancy
- 😊 stress self-recognition Index^
- 😊 self-reported health^
- ☹️ obesity rate^
- 😊 physical activity rate
- 😊 suicide rate^

Civic Engagement
- ☹️ voting rate
- 😊 perception of political empowerment*
- 😊 corruption recognition^
- 😊 trust on authorities*
- ☹️ civic consciousness*
- ☹️ voluntary work participation rate*
- 😊 interpersonal trust*

Leisure
- ☹️ leisure satisfaction index*
- 😊 leisure time*
- 😊 leisure time satisfaction index*
- ☹️ participation in culture, art, and sports event*
- ☹️ travel days per person^
- ☹️ ratio of consumption expenditure on cultural or leisure activities^

Employment and Wage
- 😊 employment rate*
- 😊 unemployment rate*
- 😊 earned income of workers^
- 😊 proportion of low-paid workers^
- ☹️ working time^
- 😊 job satisfaction index*

Safety
- 😊 homicide rate^
- ☹️ crime victimization rate^
- 😊 feeling safe walking alone at night^
- ☹️ industrial accident mortality^
- ☹️ number of fire fatalities^
- 😊 road casualty rate^
- 😊 safety accident-induced child death rate^
- ☹️ child abuse rate^
- 😊 society safety evaluation^

Education
- 😊 preschool enrollment rate^
- 😊 degree of education cost burden^
- 😊 efficiency of school education^
- 😊 school life satisfaction index*
- 😊 population with tertiary education^
- ☹️ employment rate of college graduates^

Subjective Wellbeing
- 😊 life satisfaction index*
- 😊 positive emotions*
- ☹️ negative emotions*

Environment
- 😊 air pollution(PM2.5)*
- 😊 water supply of rural area^
- 😊 public park size per person in a city^
- 😊 air quality satisfaction index^
- 😊 water quality satisfaction index^
- 😊 soil satisfaction index^
- 😊 noise satisfaction index^
- 😊 green environment satisfaction index^
- 😊 climate change recognition index^

Family and Community
- 😐 live-alone elderly rate*
- 😊 family relationship satisfactory index^
- 😊 sense of belonging to a community*
- 😊 participation rate in social institutions *
- ☹️ social isolation*

Income, Consumption, Wealth
- 😊 GNI per capita(real)*
- 😊 equalized median income^
- 😊 income satisfaction index*
- 😊 consumption satisfaction index*
- 😊 household net financial wealth*
- ☹️ household debt rate^
- 😊 relative poverty rate^

Housing
- ☹️ home-ownership rate^
- ☹️ rent to income ratio^
- 😊 living space per capita^
- 😊 dwelling without basic facilities^
- 😊 commuting time to office^
- 😊 housing environment satisfaction index^

- **Improvement** : 51 (71.8%)
- **Deterioration** : 19 (26.8%)
- No change : 1 (1.4%)

Total : 71

Note1) 😊 Improvement
☹️ Deterioration
😐 No change

2) The 25 parts marked with * are based on the 2021 measurements. The 44 parts marked with ^ are based on the 2020 measurements.

➡️ **Covid-19 and QoL**

Leisure activities

Domestic travel days per person
2019년 10.0일
2020년 5.8일

Participation in cultural, arts, and sporting events
2019년 8.4회
2021년 4.5회

Leisure life satisfaction
28.8%
27.0%
21.8% | 19.3% | 27.1% | 26.0% | 27.2%
09 | 11 | 13 | 15 | 17 | 19 | 21

Trust in authorities & people

Trust in authorities
2019년 41.5%
2020년 47.0%

Trust in people
2019년 66.2%
2020년 50.3%
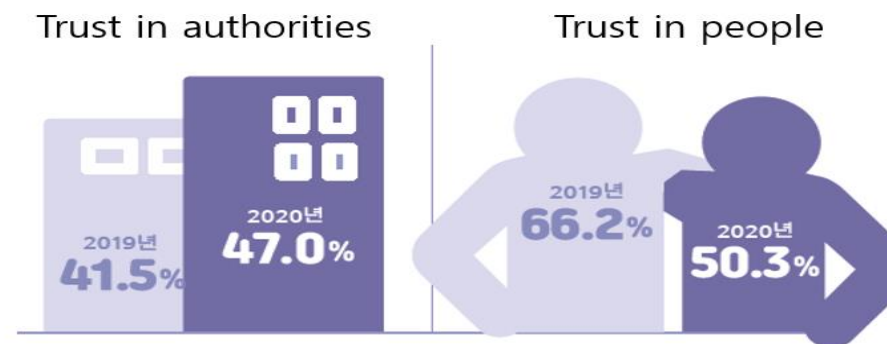
Social activities and network

Social isolation
2019년 27.7%
2021년 34.1%

Volunteering participation
2019년 16.1%
2021년 8.4%

Obesity rate
2019년 33.8%
2020년 38.3%

Environment

PM 2.5 concentration
2019년 24 $\mu g/m^3$
2020년 19 $\mu g/m^3$
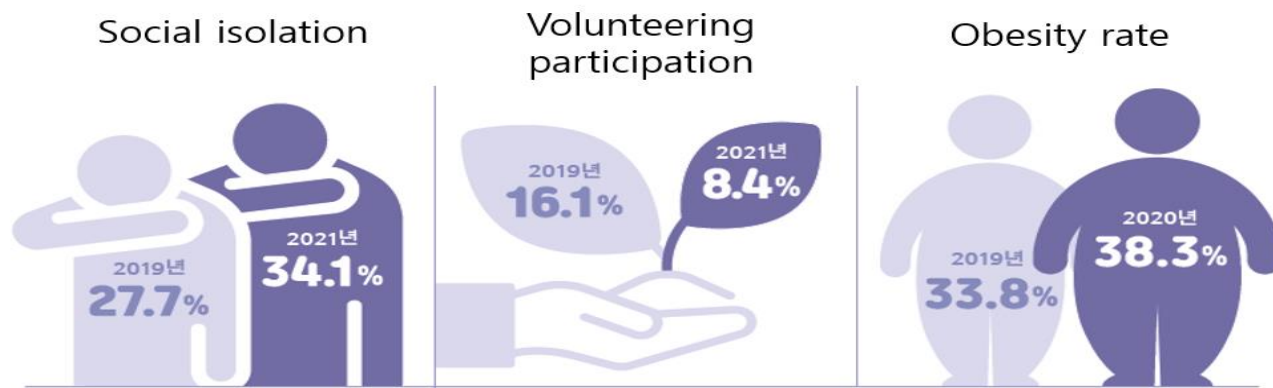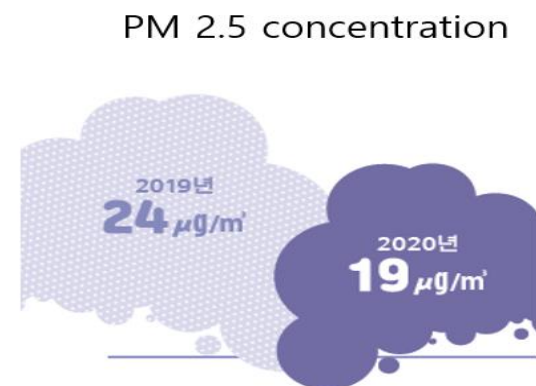
➡ **Korean QoL 2021 : Family and Community**

**Participation rate
in social institutions (2015-2021)**
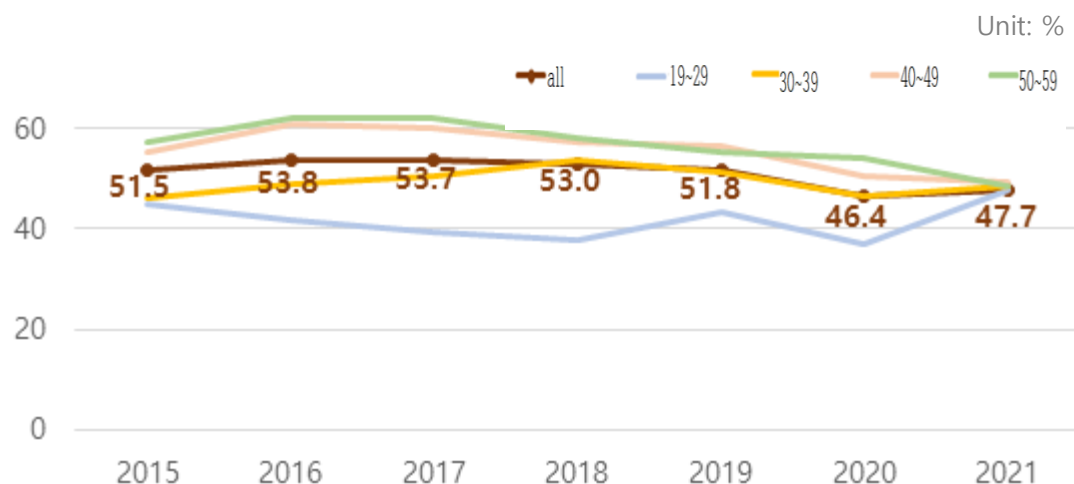
Unit: %

all — 19~29 — 30~39 — 40~49 — 50~59

51.5 53.8 53.7 53.0 51.8 46.4 47.7

Source: Korea Social Integration Survey (Korea Institute of Public Administration)
Note 1) The chart displays the share of those who are frequently or actively engaged in the work of social institutions.
2) In 2020, the survey target changed from those aged 19-69 to those aged 19 and above.

- The participation rate decreased in 2020 during COVID-19 but slightly recovered in 2021.
- Only the 19-20 age group showed a higher participation rate after the pandemic outbreak.

Social isolation (2009-2021)

Unit: %

31.8 31.9 32.9 30.0 28.1 27.7 34.1
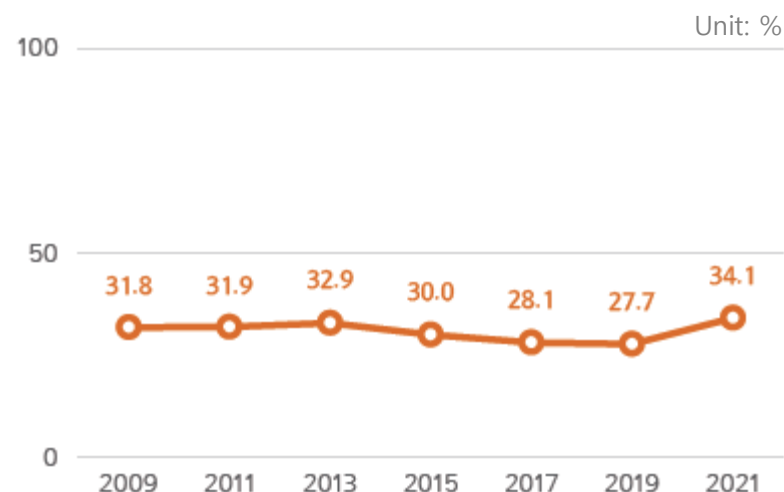
Source: Social Survey (Statistics Korea)
Note 1) The chart shows the share of respondents who answered they could get help from others either 'when they are sick and need help with housework' or 'when they need someone to talk to' or in both situations.
2) Survey target: those aged 19 and above

- People who could not get help increased by 6.4%p during COVID-19.

➡️ **Korean QoL 2021 : Health**

Obesity rate (2001-2020)

Unit: %
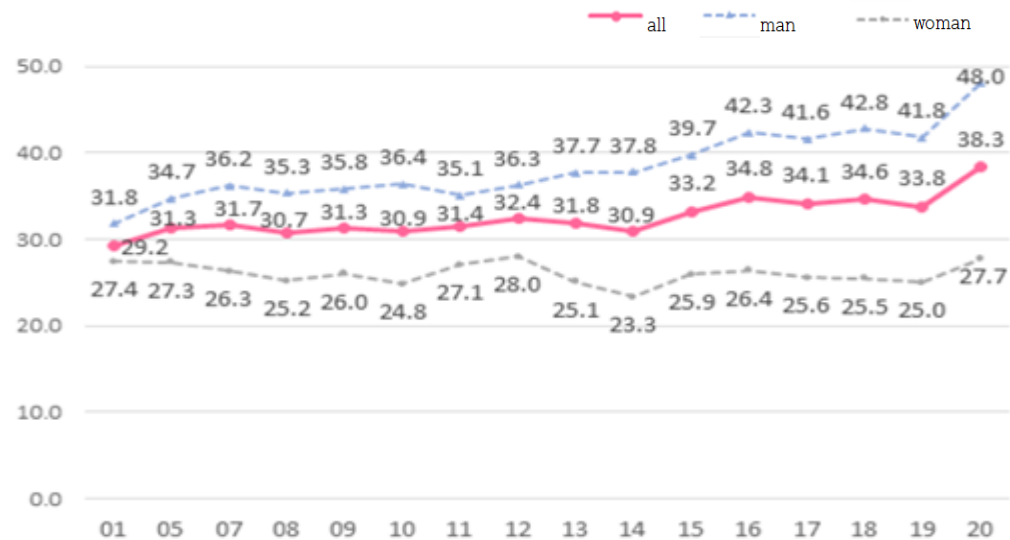
Source: Korea National Health & Nutrition Examination Survey (Korea Centers for Disease Control and Prevention)
Note: The figures depict the share of people with a BMI of 25 or higher and are age-adjusted using the 2005 population estimate.

- The obesity rate was 38.3% in 2020, a sharp increase from 2019.
- The obesity increase rate was higher for men than for women.

Obesity rate for age group (2019-2020)

Unit: %
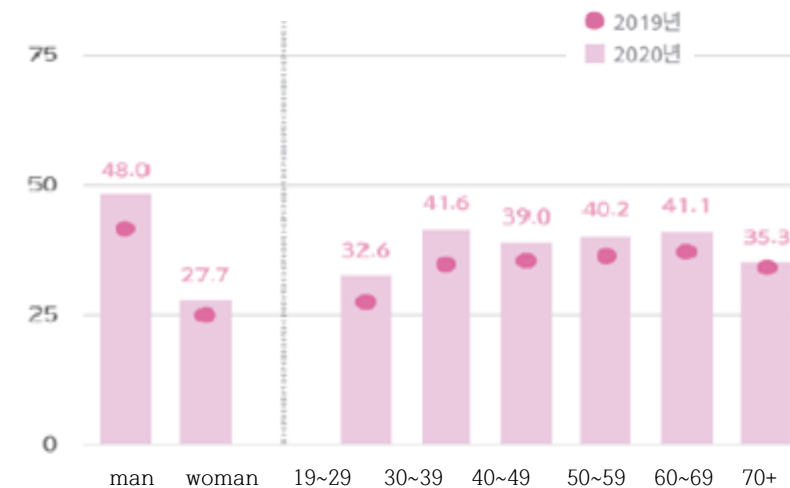
Source: Korea National Health & Nutrition Examination Survey (Korea Centers for Disease Control and Prevention)

- Those aged 20 and below and those aged 70 and above showed a relatively low obesity rate.
- Those aged 30 and below showed a sharp increase in the obesity rate from 2019 to 2020.

Korean QoL 2021 : Health

Suicide rate in OECD

(OECD 표준인구 10만 명당 명)

페이지 축 수치: 25.0, 20.0, 15.0, 10.0, 5.0, 0.0

(OECD 10.9)

4.4, 7.0, 11.0, 12.2, 14.5, 14.7, 16.5, 21.6, 23.5

터키('19), 그리스('18), 멕시코('17), 이탈리아('17), 콜롬비아('17), 이스라엘('18), 룩셈부르크('18), 스페인('17), 영국('16), 코스타리카('19), 포르투갈('18), 독일('19), 아일랜드('15), 덴마크('18), 슬로바키아('14), 칠레('18), 네덜란드('18), 체코('19), 아이슬란드('19), 오스트리아('19), 캐나다('17), 폴란드('18), 스위스('17), 노르웨이('16), 뉴질랜드('16), 스웨덴('18), 프랑스('16), 호주('18), 에스토니아('19), 핀란드('18), 헝가리('19), 라트비아('18), 미국('17), 일본('18), 벨기에('16), 슬로베니아('19), 리투아니아('19), Korea
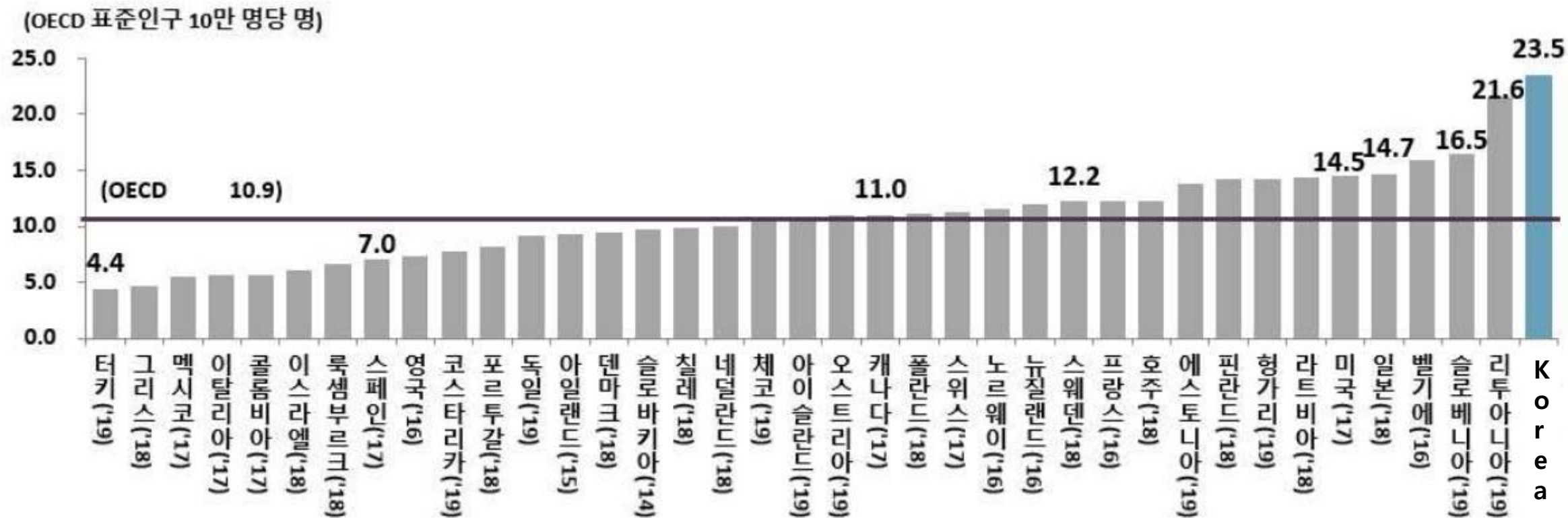
Korean QoL 2021 : Health

Suicide rate (2001-2020)

Unit: per 100,000 people
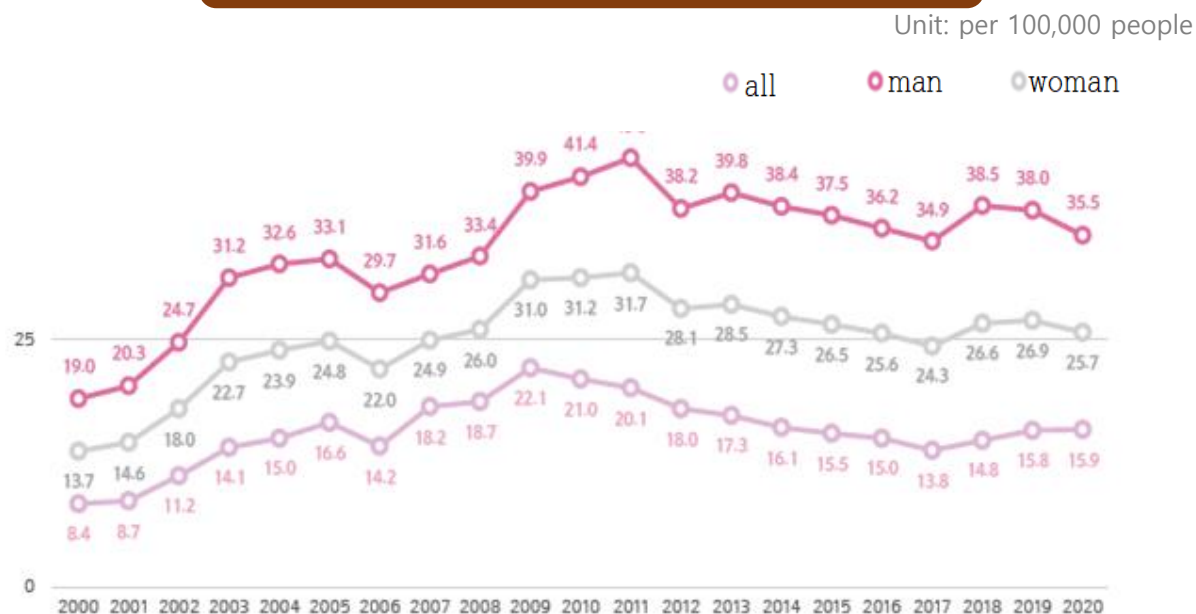
Source: Causes of Death Statistics (Statistics Korea)

- In 2020, the overall suicide rate decreased from the previous year. But the rate for women in their 20s and 30s increased (due in part to the impact of COVID-19).

Suicide rate for age, gender (2000-2020)
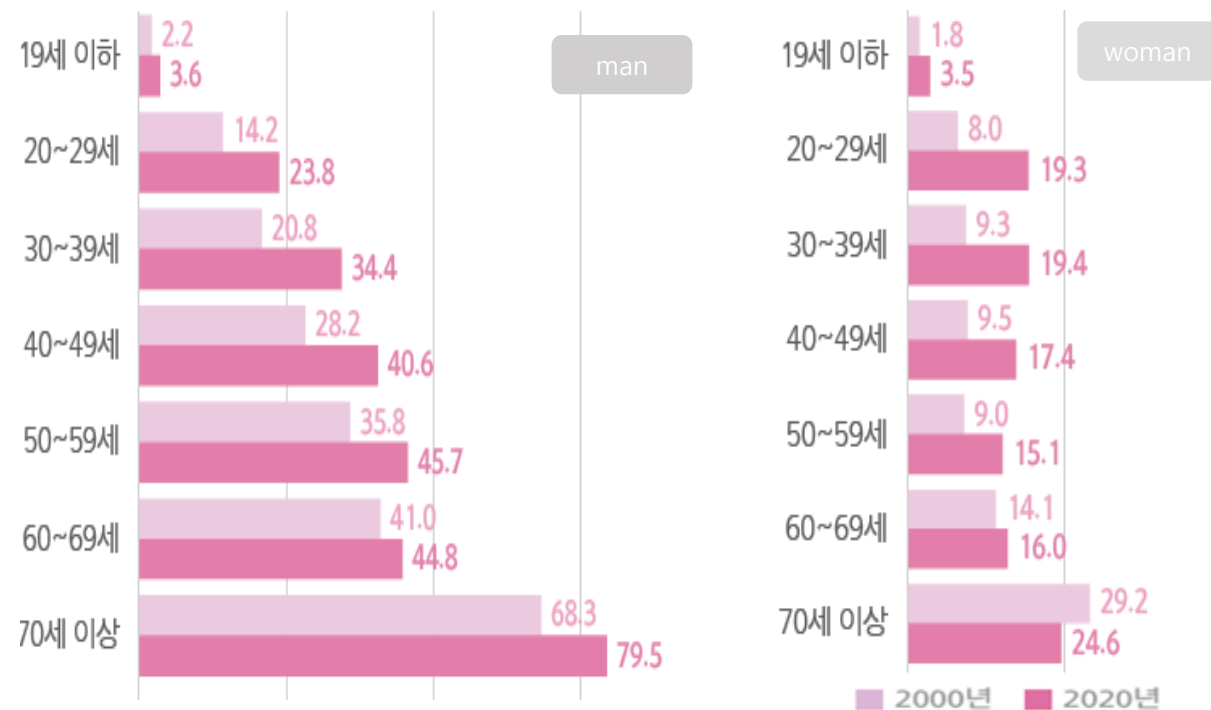
Source: Causes of Death Statistics (Statistics Korea)

- The suicide rate for men increased in all age groups from 2000 to 2020.
- The suicide rate for men aged 70 and above was the highest and continuously increased.
- The suicide rate for women in their 20s and 50s increased significantly from 2000 to 2020.

III Results

Korean QoL 2021 : Education

School life satisfaction index (2000–2020)

Unit: %
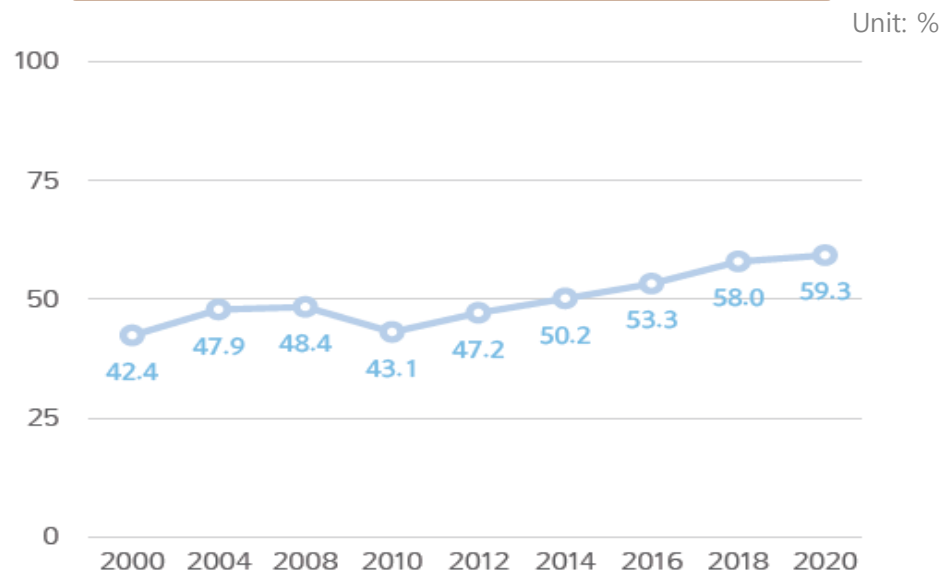
Source: Social Survey (Statistics Korea)
Note: The chart depicts the share of middle and high school students who answered the question about the overall school life with 'very satisfied' or 'slightly satisfied'.

- School life satisfaction among middle and high school students continuously increased.
- Friendship satisfaction declined from 76.6% in 2018 to 73.3% in 2020.

Employment rate of college graduates (2011–2020)

Unit: %
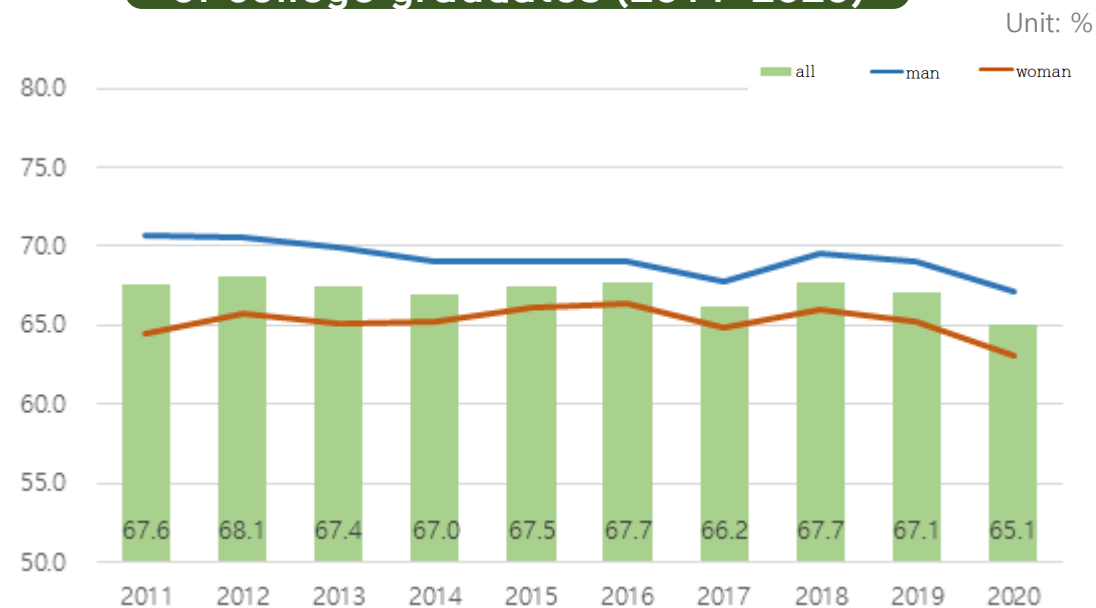
Source: Employment Statistical Yearbook (Korea Educational Development Institute)
Note: Higher education institutions include universities, 2-year colleges, industrial colleges, and educational colleges.

- The employment rate was 65.1% in 2020, down by 2%p from 2019.

Korean QoL 2021 : Employment and Wage

Employment rate (2000–2021)

Unit: %
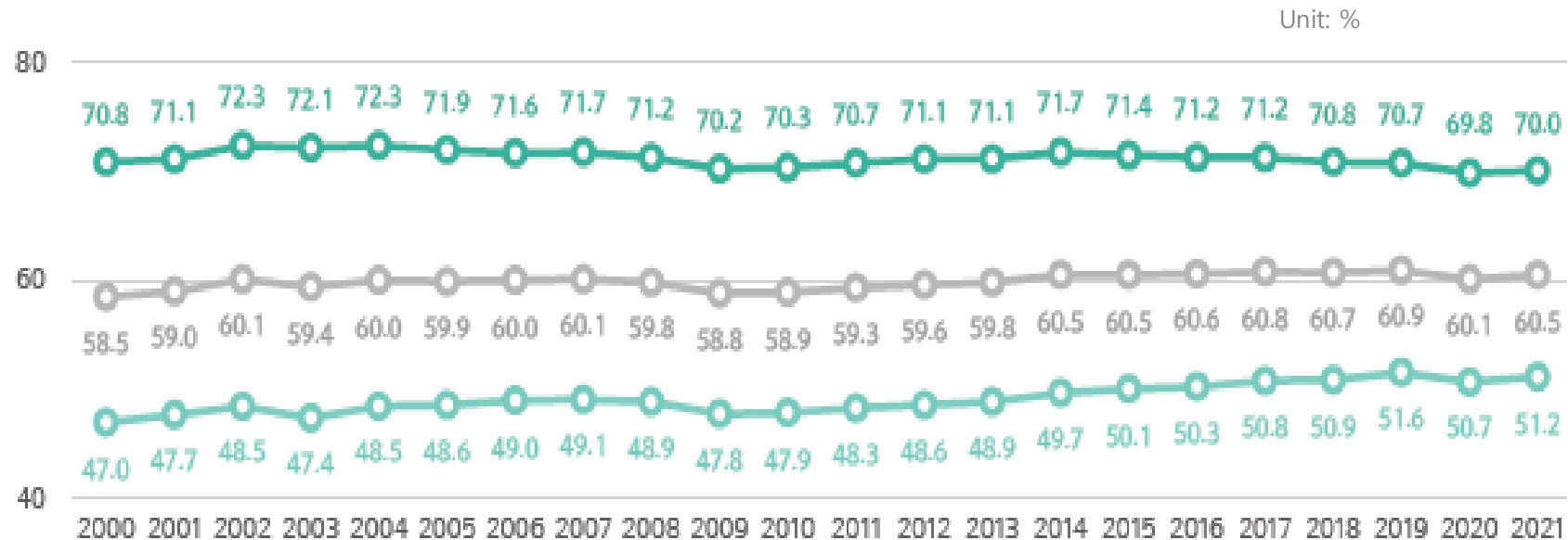
Source: Economically Active Population Census (Statistics Korea)

- The employment rate decreased during COVID–19.
- The employment rate slightly increased from 2020 to 2021.
- The male employment rate fell below 70% for the first time since 2000.

→ **Korean QoL 2021 : Income, Consumption, Wealth**

GNI per capita(real) (2000–2020)

Unit: 10,000 KRW
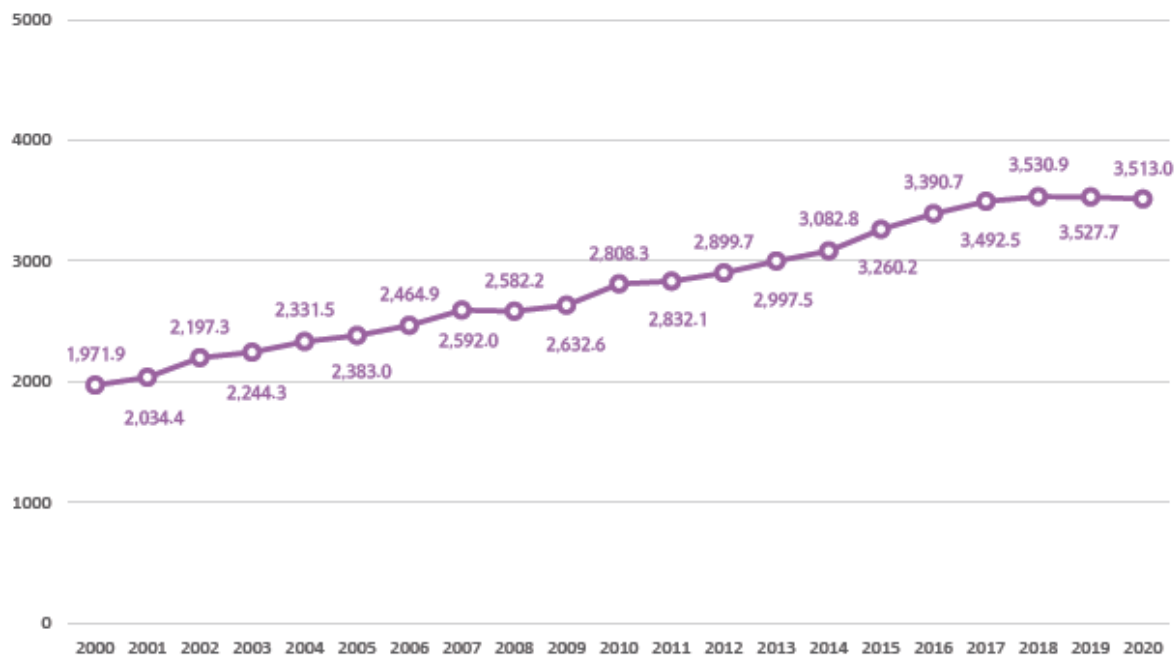
Source: National Account (Bank of Korea), Consumer Price Index (Statistics Korea)
Note: Real GNI was calculated based on CPI (2015 = 100).

- GNI per capita showed an upward trend except for 2008.
- The figure slightly decreased from 2018 to 2019 and declined further in 2020 to 35.13 million KRW.

Household debt rate (2008–2020)

Unit: %
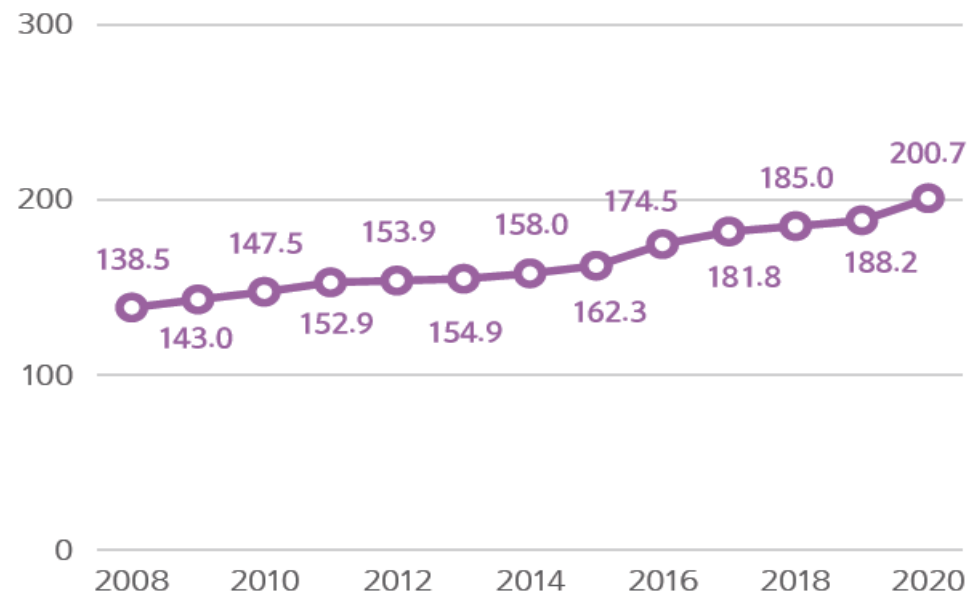
Source : OECD, Stat(stats.oecd.org, 2021년 12월 기준)

- Household debt rate sharply rose from 188.2% in 2019 to 200.6% in 2020 (an increase of 12.5%).
- Household debt rate has continuously increased since 2008.

Korean QoL 2021 : Leisure

Leisure time (2006–2021)

Unit: hours/day

2006	2008	2010	2012	2014	2016	2018	2019	2020	2021
3.8	4.0	4.9	3.8	4.2	3.6	3.9	4.0	4.2	4.4
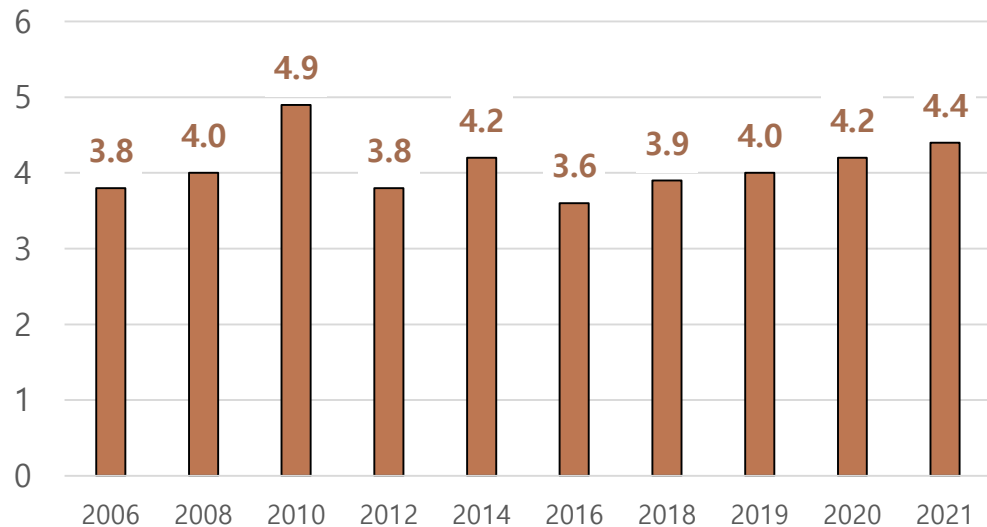
Source: National Leisure Activities Survey (Ministry of Culture, Sports and Tourism)

- Average daily leisure time has increased since 2016.
- Reported leisure time increased during COVID-19.

Travel days per person (2018–2021)

2018: 9.49 days
↓
2019: 10.01 days
↓
2020: 5.81 days
↓
2021: 6.58 days

Age's

Unit: days
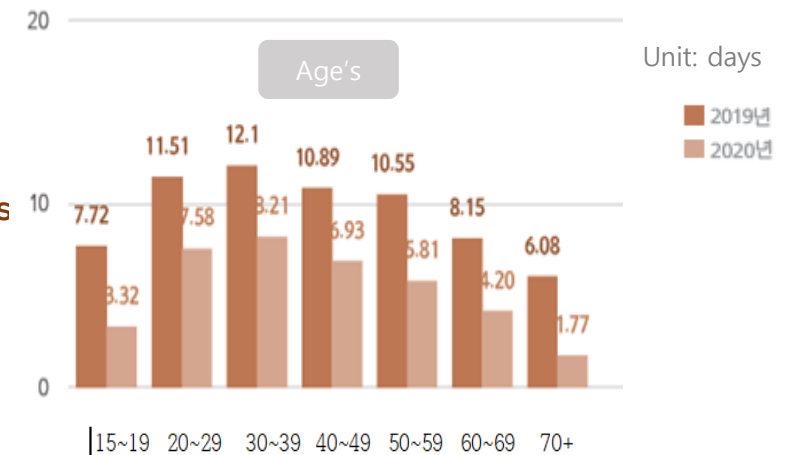
Source: National Travel Survey (Ministry of Culture, Sports and Tourism)
Note: The figures show the domestic travel days per person aged 15 and above.

- Domestic travel days per person fell by half during the pandemic.
- Those aged 70 and above, those aged 15–19, and those aged 60–69 showed a relatively small decrease in travel days.

Korean QoL 2021 : Leisure

Participation in culture-art-sports event (2004-2021)

Unit: times/year
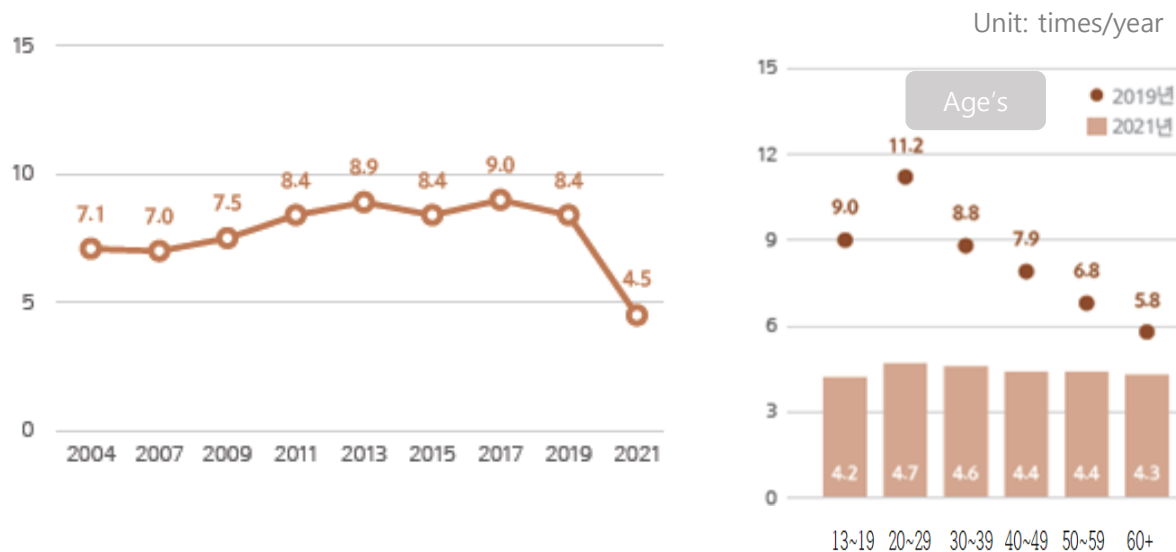
Source: Social Survey (Statistics Korea)
Note: The figures show the average participation in culture-art-sports events per person over the past year.

- Participation in culture-art-sports events decreased by half during the COVID-19 period.
- Different age groups showed different decrease rates, narrowing the existing gaps between age groups.

Leisure satisfaction index (2009-2021)

Unit: %
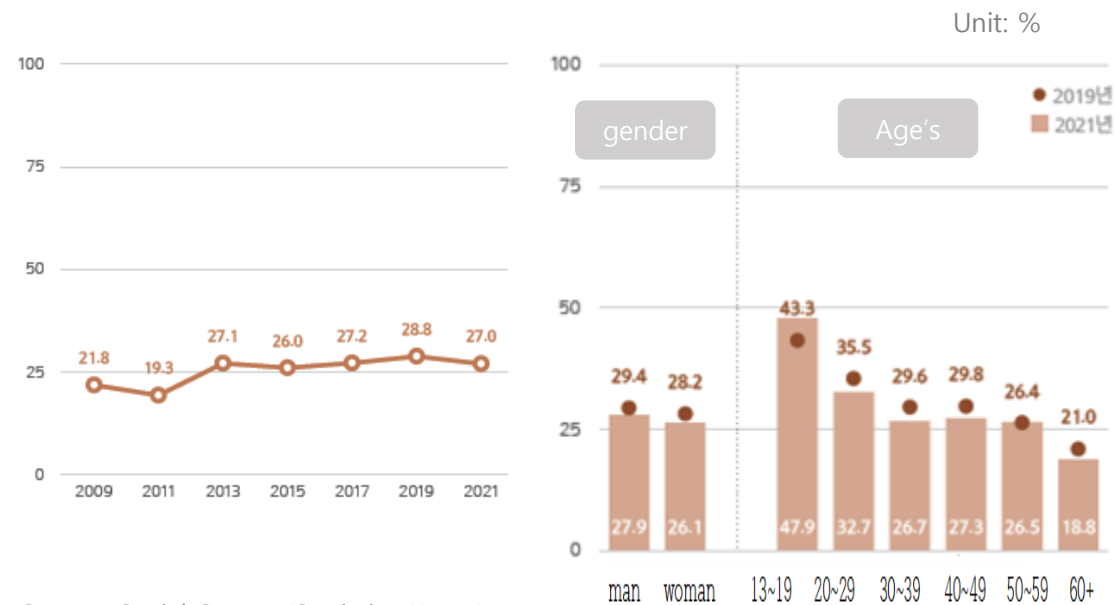
Source: Social Survey (Statistics Korea)
Note: The chart depicts the share of respondents aged 13 and above who answered the question about leisure satisfaction with 'very satisfied' or 'slightly satisfied'.

- Leisure life satisfaction decreased slightly in 2021.
- Those aged 13-19 showed a higher leisure life satisfaction compared to the pre-pandemic level.

Korean QoL 2021 : Environment

Air quality satisfaction index (2010–2020)
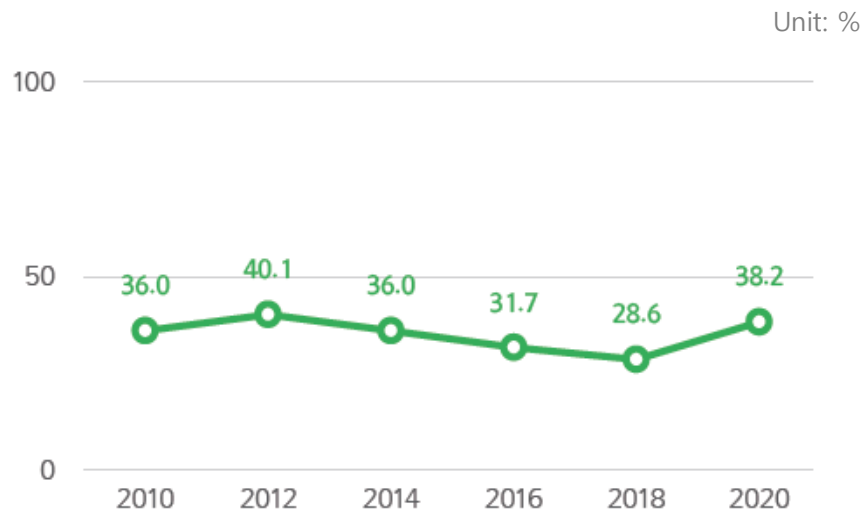
Unit: %

Source: Social Survey (Statistics Korea)
Note: The chart depicts the share of respondents who answered the question about ambient air quality with 'very good' or 'slightly good'.

- **Air quality satisfaction was the lowest among other environmental satisfaction levels.**
- **The figure increased in 2020 by 9.6%p from 2018.**

Find dust (PM2.5) (2015–2021)

Unit: μg/㎥
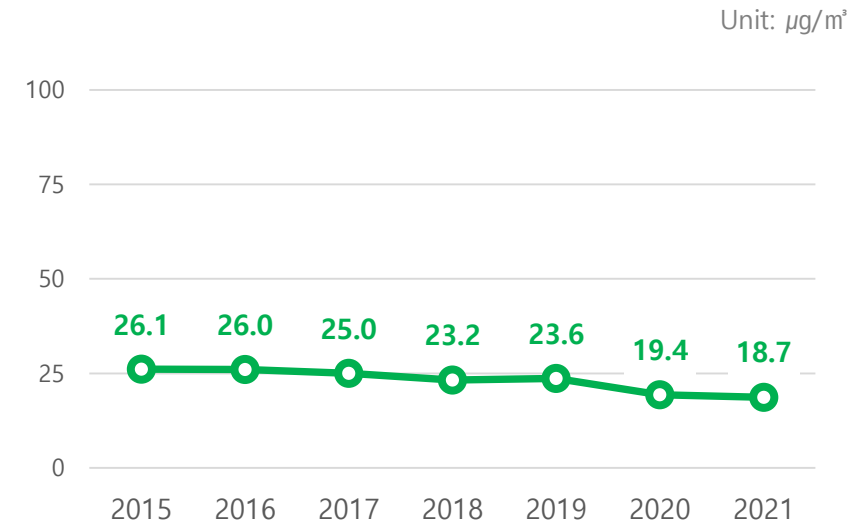
Source: Annual Report of Ambient Air Quality in Korea (National Institute of Environmental Research)
Note: The chart shows the annual population-weighted average concentration of PM 2.5 in 17 cities and provinces.

- **PM 2.5 level decreased in 2020 and 2021 during the pandemic.**

➡ **Korean QoL 2021 : Safety**

Road casualty rate for child, elderly (2011–2020)
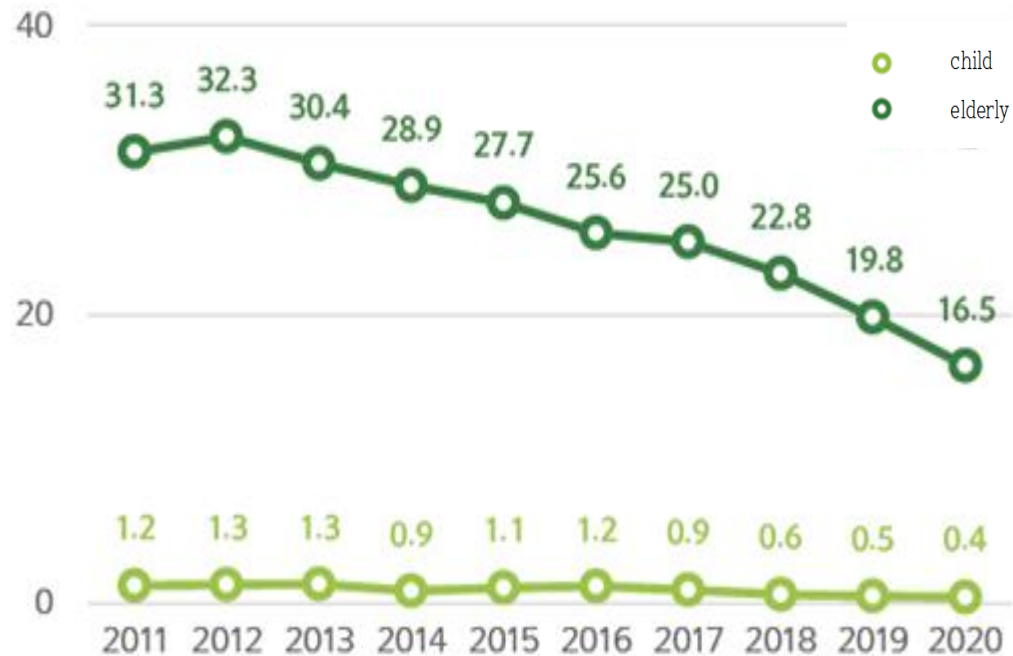
Source: Traffic Accidents Statistics (National Police Agency), Population Projections (Statistics Korea)
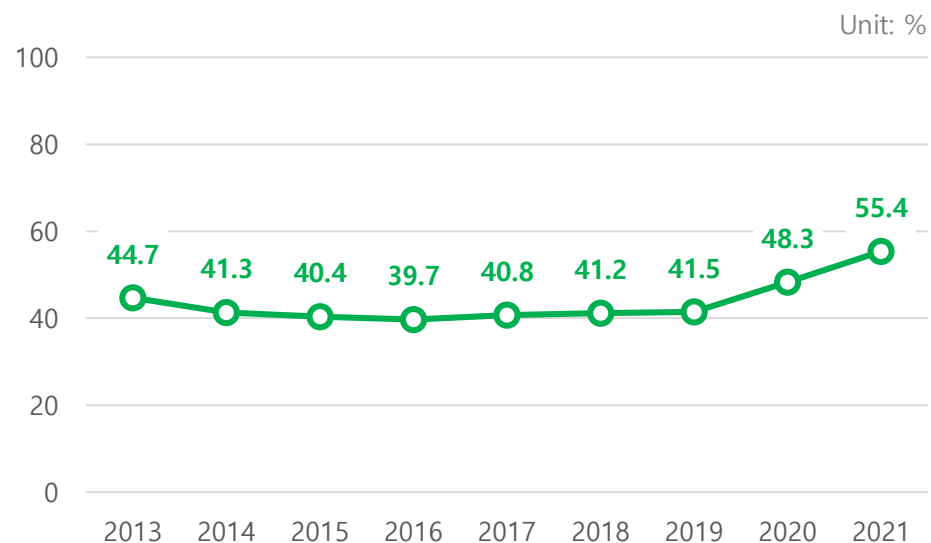Note: The chart shows the traffic-related death rates of children aged 12 and below and senior citizens aged 65 and above.

- Traffic-related death rates of children and senior citizens have decreased since 2012. (due in particular to the decrease in outdoor activities of the elderly during COVID-19)

→ Korean QoL 2021 : Civic Engagement

Trust in authorities (2013-2021)

Unit: %

44.7 41.3 40.4 39.7 40.8 41.2 41.5 48.3 55.4

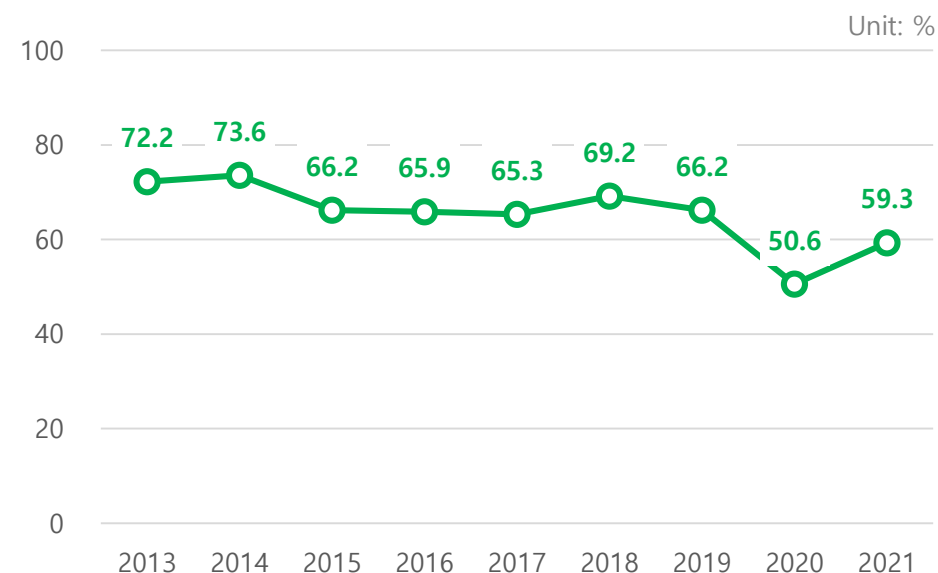2013 2014 2015 2016 2017 2018 2019 2020 2021

Source: Korea Social Integration Survey (Korea Institute of Public Administration)
Note: 1) The chart shows the share of respondents who answered the question about trust in 26 authorities with 'very trustworthy' or 'somewhat trustworthy'.
2) In 2020, the survey target changed from those aged 19-69 to those aged 19 and above.

- **Public trust in the authorities significantly increased during COVID-19.**

Interpersonal trust (2013-2021)

Unit: %

72.2 73.6 66.2 65.9 65.3 69.2 66.2 50.6 59.3

2013 2014 2015 2016 2017 2018 2019 2020 2021

Source: Korea Social Integration Survey (Korea Institute of Public Administration)
Note 1) The chart depicts the share of respondents who answered the question about interpersonal trust with 'very trustworthy' or 'somewhat trustworthy'.
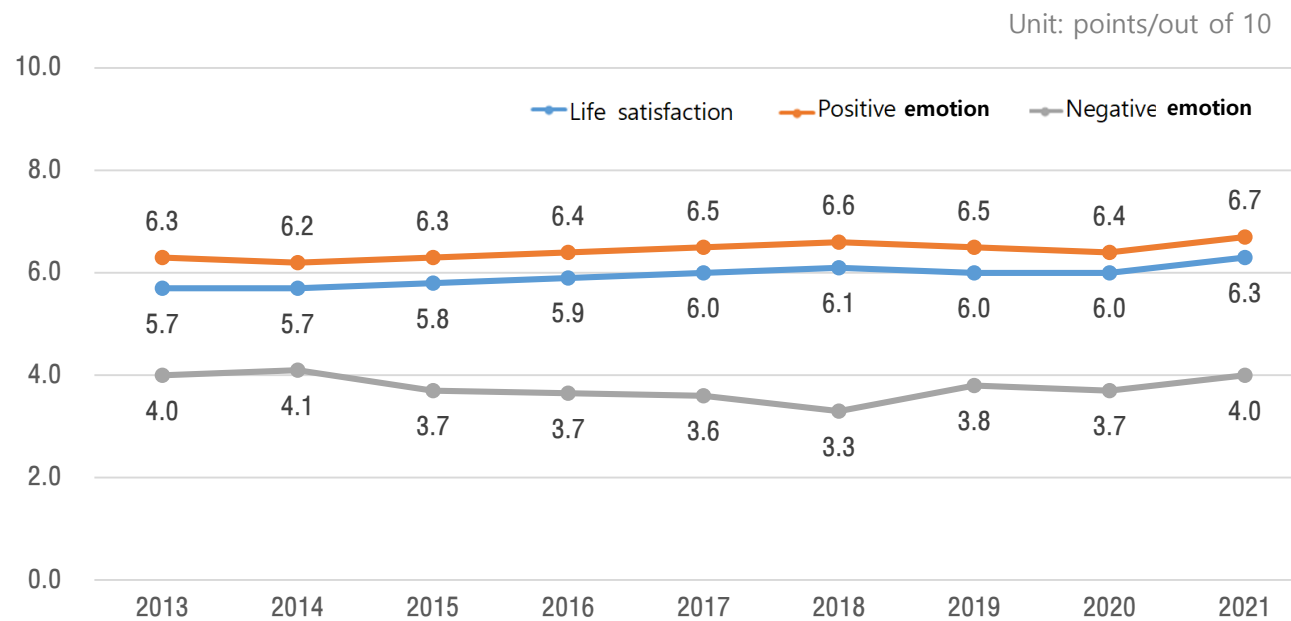2) In 2020, the survey target changed from those aged 19-69 to those aged 19 and above.

- **In 2020, the beginning of the pandemic, interpersonal trust rapidly decreased.**
- **In 2021, interpersonal trust increased but did not recover to the pre-pandemic level.**

➡️ **Korean QoL 2021 : Subjective Wellbeing**

**Life satisfaction index and emotions
(2013-2021)**

Unit: points/out of 10

Source: Korea Social Integration Survey (Korea Institute of Public Administration)
Note: In 2020, the survey target changed from those aged 19-69 to those aged 19 and above.

- Index of life satisfaction and positive states stagnated in 2020 before increasing in 2021.
- Index of negative states increased further in 2021.

Korean QoL 2021 : Long term - Health

- •Life expectancy, healthy life expectancy, and obesity rate have increased since 2000.
- •Stress self-recognition index has decreased since 2010.
- •Self-reported health is not statistically significant.
- •Physical activity rate has increased since 2005.
- •Suicide rate has increased from 2000 to recent years, but shows a downward trend after 2010.

Life expectancy

healthy life expectancy

Stress self-recognition

Self-reported health

obesity rate

Physical activity rate

Suicide rate

지표값
회귀선 2000년~최근
회귀선 2005년~최근
회귀선 2010년~최근
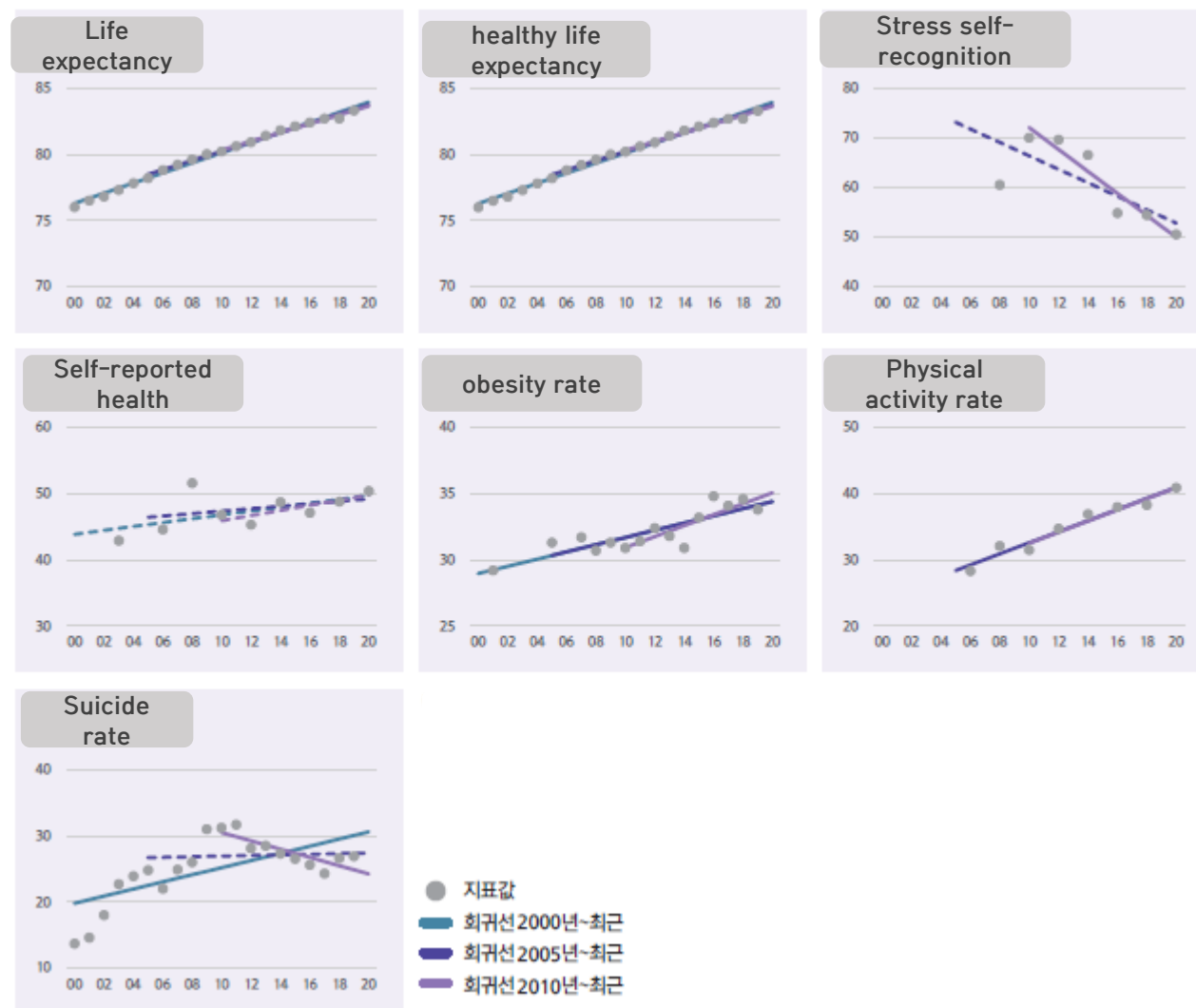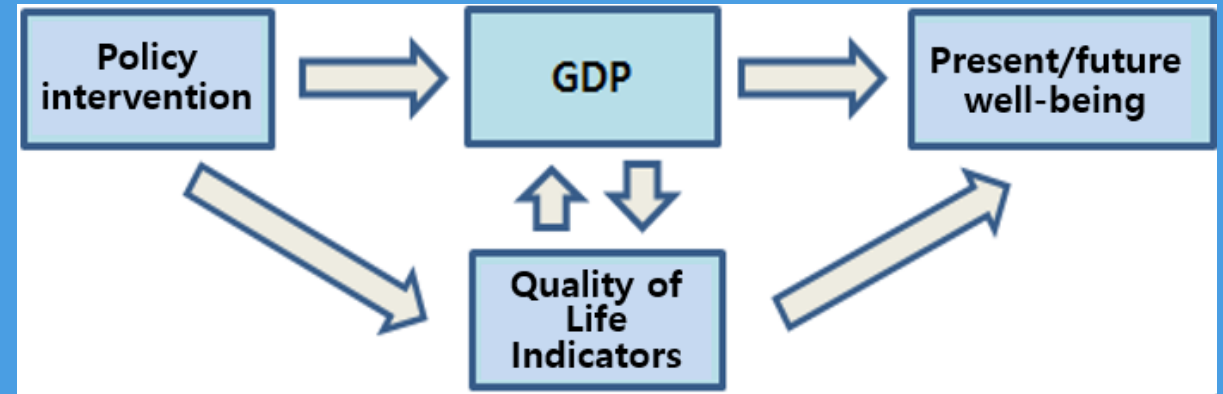
IV

Using for Policy

➡ **Policy Use**

◖ **3-Step Process**

⮧ **(Step 1) Develop instruments (indicators) for an accurate measurement of the QoL**

⮧ **(Step 2) Identify factors influencing the QoL and establish their causal relationships in order to make their use for policy purposes**

➡ Produce and disseminate study reports

⮧ **(Step 3) Apply the lessons in the process of policy formulation, administration, and evaluation**

※ The history of evolution in social indicators proves an extinction of any indicator having failed to make its use in policies.

➡ Relate to the government's vision (ex. the goal of national affairs)

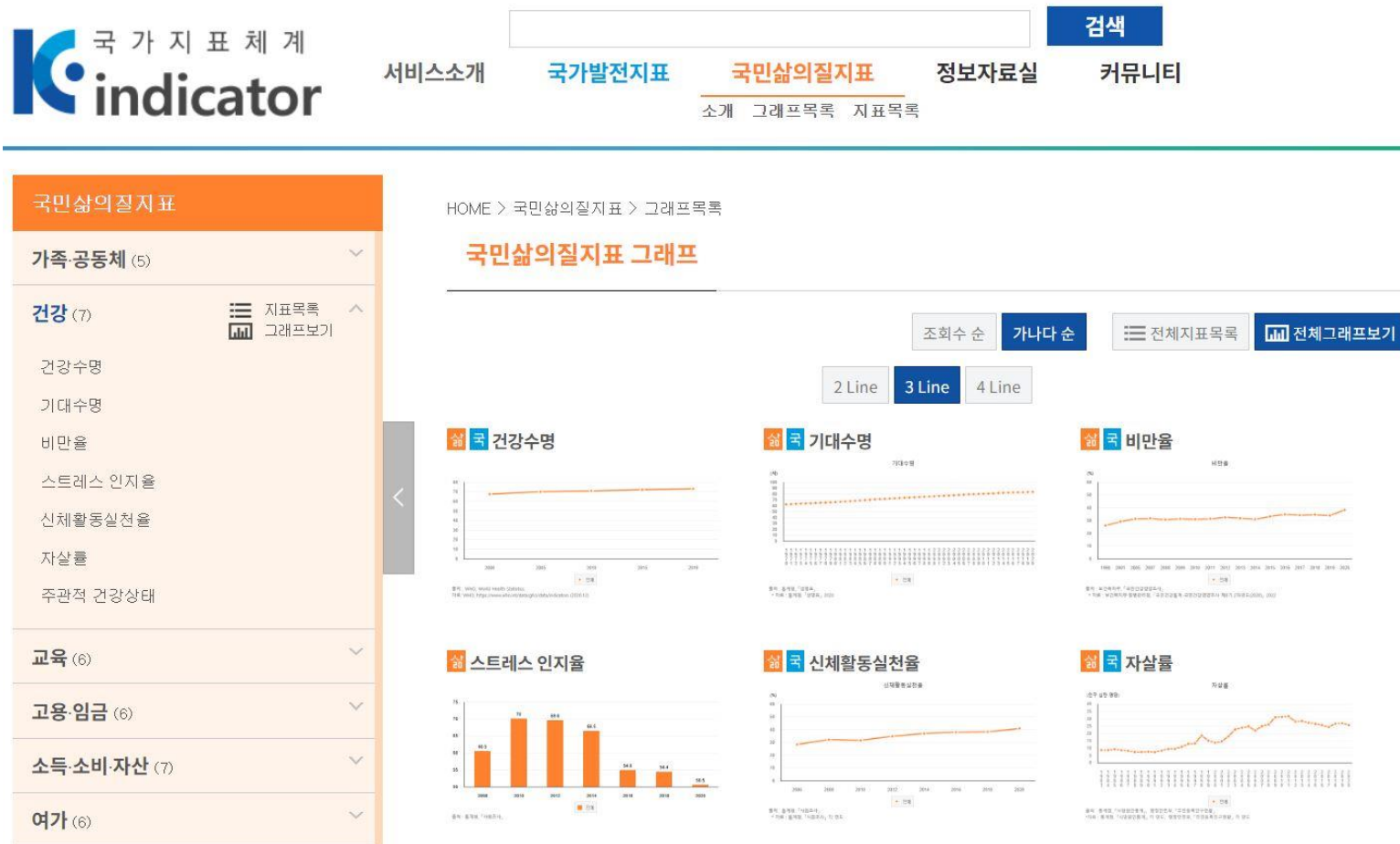➡ Provide grounds for budgetary and policy decisions (incl. institutional mechanisms)

Using Indicator for Policy Action

✓ Cases of using well-being indicators for policy-making

- New Zealand prioritized the well-being budget when deciding on budget allocation (May 2019).
  - Italy linked 12 representative indicators with the budget following the Budget Law. Italy also identified the effects
of policies on well-being indicators and compared the current well-being trends with policy forecasts.
  - Iceland allocated a budget based on well-being indicators (2020).

✓ Korea has shown a greater policy interest in improving quality of life and happiness and reflected QoL in policy goals.

✓ Statistics Korea provides QoL indicators online and creates annual reports, monitoring the QoL status.

✓ It is necessary to further disaggregate indicators by population group and region and make better use of them in policy-making.
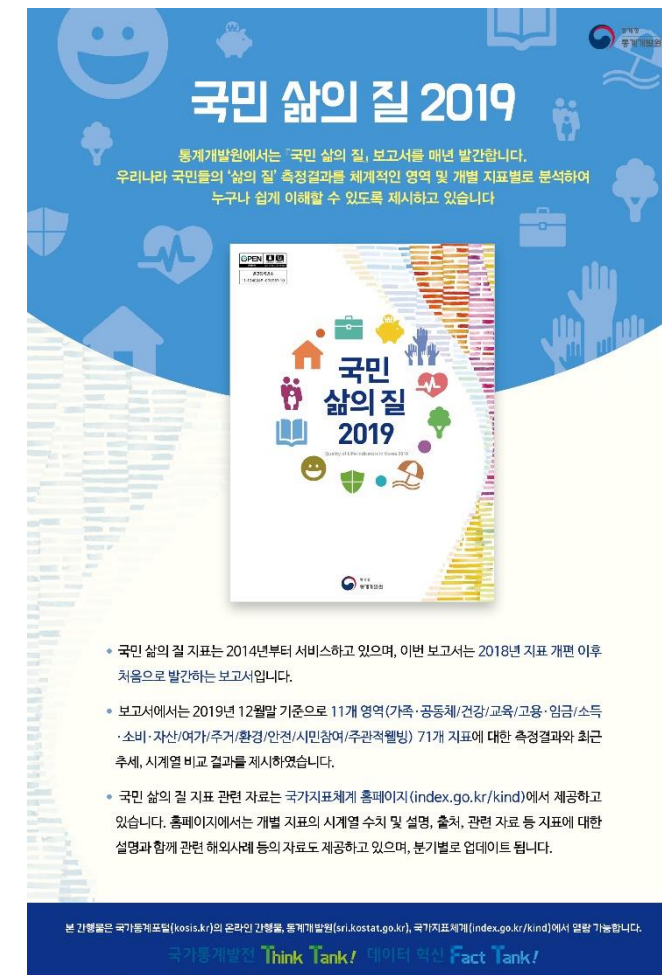
Sharing QoL measures

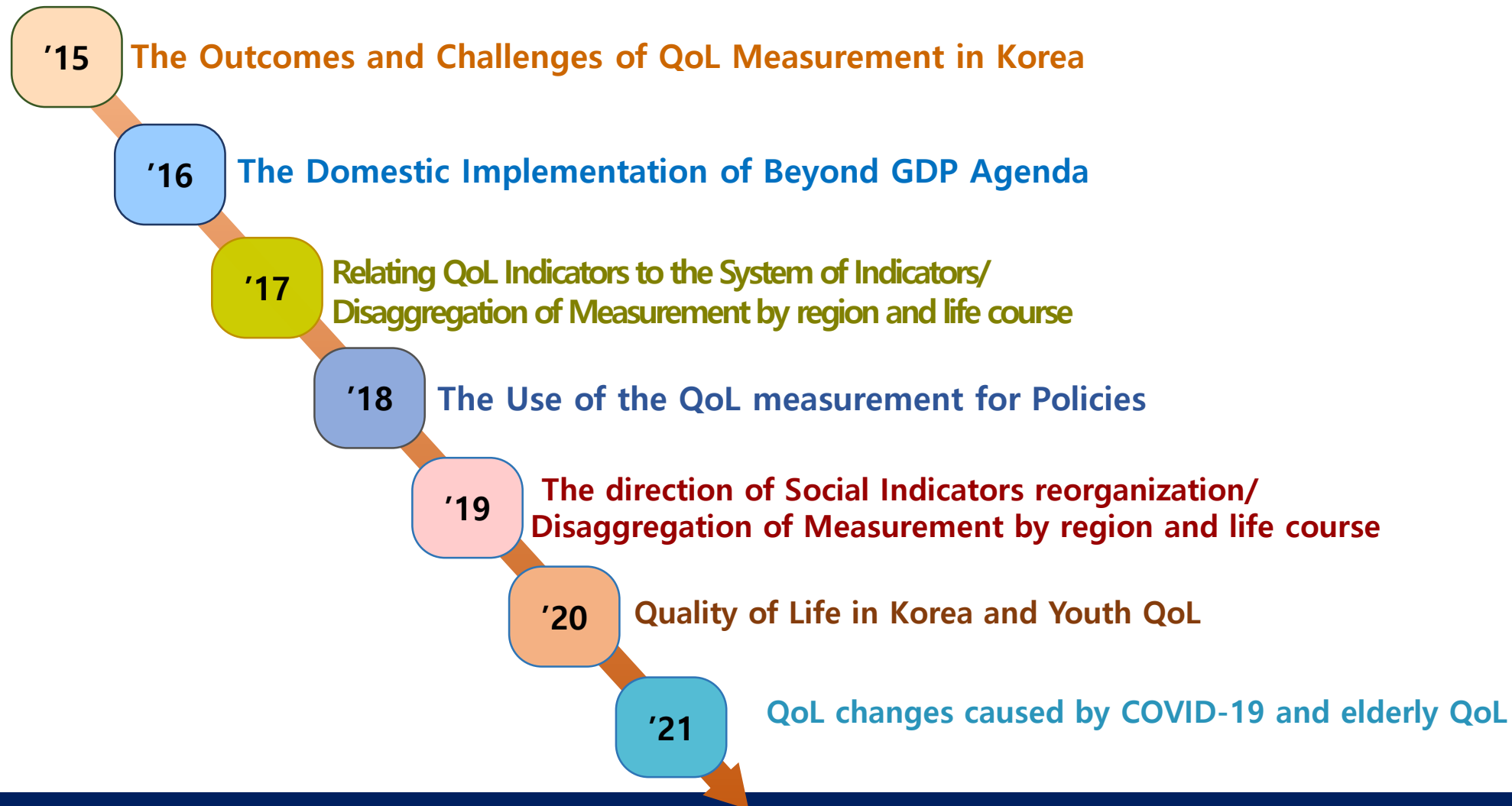▪ Quarterly update QoL indicators on the website (www.index.go.kr/kind)

▪ Publish annual analysis reports

Statistics Korea
Statistics Research Institute

➡ **Korean Quality of Life Measurement Forum Held Annually**

'15 **The Outcomes and Challenges of QoL Measurement in Korea**

'16 **The Domestic Implementation of Beyond GDP Agenda**

'17 Relating QoL Indicators to the System of Indicators/
Disaggregation of Measurement by region and life course

'18 **The Use of the QoL measurement for Policies**

'19 **The direction of Social Indicators reorganization/
Disaggregation of Measurement by region and life course**

'20 **Quality of Life in Korea and Youth QoL**

'21 **QoL changes caused by COVID-19 and elderly QoL**

Measurement Enhancement

◖ **Disaggregation by life stage:** measuring the QoL of specific target groups of policies

Life Stages	Current Indicators	Plans	Timeline
Children · Youths	The Statistics on Youth	Revise existing indicators on children and youths	Research in 2018 Production in 2019
Adults	Korean Social Indicators	Use existing indicators	
Seniors	The Statistics on the Aged	Develop a new set of indicators	Research in 2019 Development in 2021

◖ **Sub-national Disaggregation:** Standardizing disaggregated sub-national indicators by means of promoting common indicators

↘ Encourage policy makers to use sub-national social indicators and provide continued support for the advancement of indicators
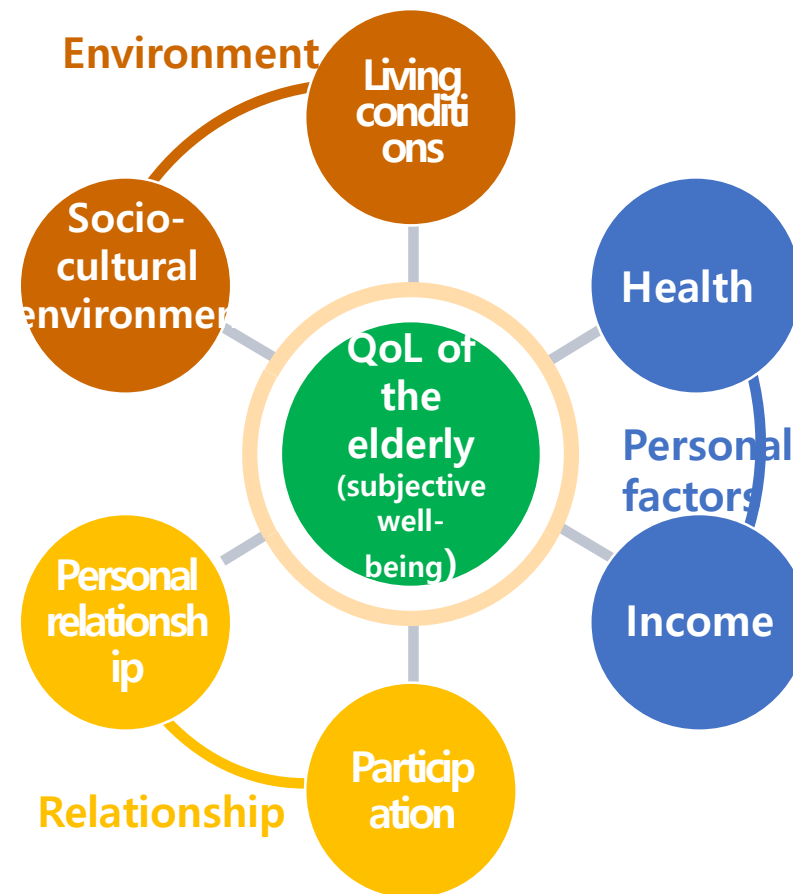
Statistics Korea
Statistics Research Institute

Child Well-being Framework

아동 · 청소년 중심의 삶의 질 지표

Subjective Well-being

Relationship

Health

Leisure & activity

Education & development

Material conditions & housing

Safety and behavior

사회적 배경 지표

인구

사회정책

시간의 흐름

Elderly Well-being Framework

Environment

Living conditions

Socio-cultural environment

Health

QoL of the elderly (subjective well-being)

Personal factors

Personal relationship

Income

Relationship

Participation