

Age-friendly Baseline Assessment of Incheon

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Chapter 1. Demographic Characteristics and Aging Trends in Incheon Metropolitan City

Section 1. Population Overview and Status of the Elderly Population in Incheon Metropolitan City

Category	Description
Total population	<ul style="list-style-type: none"> (As of 2013) 2,879,782 → (As of Sep 2024) 3,016,520 ↻ 4.75% (136,738 people) increase (Annual average) Population growth rate 0.42%, showing an increasing trend every year except 2020 (Female) 1,509,081 > (Male) 1,507,439
Total population (by district)	<ul style="list-style-type: none"> 20.9% of the total population resides in Seo-gu (631,652 people), while Ganghwa-gun, Dong-gu, and Ongjin-gun are less than 5%, indicating a large disparity in population size by administrative district.
Population composition	<ul style="list-style-type: none"> Youth population 11.1%, working-age population 71.5%, elderly population 17.4% (Compared to national average) Youth population and working-age population ratios are relatively high, while elderly population ratio is somewhat low. (Sep 2024 vs. 2005) Youth population (0-14 years) decreased by -35.7%, core working-age population (25-49 years) decreased by -9.0%. Population aged 65 and over increased by 193.1%, a significant increase compared to other age groups. (Sep 2024 vs. 2005) Population increase: Jung-gu (79.2%), Seo-gu (65.8%), Yeonsu-gu (50.2%) in order / Population decrease: Dong-gu (-25.1%), Gyeyang-gu (-16.1%), Bupyeong-gu (-13.1%) in order.
Elderly population (by district)	<ul style="list-style-type: none"> Total 65 years and older population: 523,522 people (Increase rate compared to 2005) 193.1% (Highest increase rate: Seo-gu 306.5%, Lowest increase rate: Dong-gu 90.6%)
Elderly population ratio (by district)	<ul style="list-style-type: none"> (As of 2005) 6.9% → (As of Sep 2024) 17.4% ↻ 10.5%p increase Areas with elderly population ratio of 30% or more: Ganghwa-gun (38.6%), Ongjin-gun (33.3%) Areas with elderly population ratio lower than Incheon Metropolitan City average: Jung-gu (15.8%), Seo-gu (13.1%), Yeonsu-gu (12.8%)
Aging index	<ul style="list-style-type: none"> Aging index (ratio of elderly population per 100 youth population): 156.4% Areas with fewer elderly people compared to youth population: Seo-gu (94.7%), Yeonsu-gu (89.1%)
Elderly dependency ratio	<ul style="list-style-type: none"> Elderly dependency ratio (ratio of elderly population per 100 working-age population): 24.3% Areas with elderly dependency ratio of 50% or more: Ganghwa-gun (70.8%), Ongjin-gun (54.1%)
Average age (by district)	<ul style="list-style-type: none"> Areas aged 40-49: Jung-gu, Dong-gu, Michuhol-gu, Yeonsu-gu, Namdong-gu, Bupyeong-gu, Gyeyang-gu, Seo-gu Areas aged 50-59: Ganghwa-gun, Ongjin-gun
Elderly living alone (by district)	<ul style="list-style-type: none"> (As of 2023) Total 102,510 people, 8.0% of all households Densely populated areas for elderly living alone: Namdong-gu (18.7%) and Bupyeong-gu (18.0%)
Elderly living alone ratio (by district)	<ul style="list-style-type: none"> Compared to the national average of 9.4%: Ganghwa-gun (16.2%), Ongjin-gun (15.5%), Dong-gu (13.6%)

Note: Unless a specific year is indicated, all figures are as of September 2024.

Section 2. Living Environment of Incheon Metropolitan City

Category	Description	
Residential Environment	Number of Housing Units	<ul style="list-style-type: none"> (As of 2023) Total 1,131,300 units: Apartments (67.2%), Multi-household houses (21.1%), Detached houses (8.2%), Row houses (2.7%), Housing units within non-residential buildings (0.8%)
	Aged Housing (30+ years)	<ul style="list-style-type: none"> (As of 2023) Apartments (56.6%), Multi-household houses (21.7%), Detached houses (17.2%), Row houses (3.0%), Housing units within non-residential buildings (1.5%)
	Vacant Houses (Unoccupied)	<ul style="list-style-type: none"> (As of 2023) Apartments (46.8%), Multi-household houses (36.4%), Detached houses (11.4%), Row houses (4.1%), Housing units within non-residential buildings (1.3%)
	Number of Housing Units per 1,000 Population	<ul style="list-style-type: none"> (As of 2022) Incheon City has 397.4 housing units per thousand population, which is approximately 92.4% compared to the national average of 430.2 units.
Transportation Environment	Vehicle Registration	<ul style="list-style-type: none"> (As of Aug 2024) Total 1,830,324 vehicles (Passenger cars 1,493,827, Freight vehicles 201,648, Motorcycles 86,808, Vans 38,557, Special vehicles 9,484) District with the most vehicle registrations: Seo-gu with 336,431 vehicles
	Public Transportation Modal Share	<ul style="list-style-type: none"> (As of 2023) City bus 53.6%, Urban railway 42.2%, Express bus 1.3%
Senior Welfare Resources	Cultural Facilities	<ul style="list-style-type: none"> (As of 2023) Total 64 public libraries, with Michuhol-gu and Seo-gu each having 10, the highest number. (As of 2022) Total 45 cultural facilities, specifically 39 cultural arts promotion centers, 4 art museums, 1 local cultural center, 1 performance venue.
	Sports Facilities	<ul style="list-style-type: none"> (As of 2021) Total 1,254 public sports facilities
	Welfare Facilities	<ul style="list-style-type: none"> (As of 2023) Total 3,117 senior welfare facilities, 26,091 staff members. - Senior leisure welfare facilities (1,607 facilities), At-home senior welfare facilities (985 facilities), Senior medical welfare facilities (496 facilities), Senior job support agencies (12 agencies), Senior residential welfare facilities (16 facilities), Shelters exclusively for abused elderly (1 facility)
	Elderly Protection Agencies	<ul style="list-style-type: none"> (As of 2023) Total 2 agencies (Namdong-gu, Seo-gu)
	Dementia-Specialized Long-term Care Facilities	<ul style="list-style-type: none"> (As of 2023) Total 42 facilities Dementia-specialized day/night care facilities (21 facilities), Dementia-specialized rooms within senior nursing facilities (19 facilities), Dementia-specialized shared living homes for seniors (2 facilities) Approximately 78% occupancy rate (Capacity 674, Current residents 525)
	Medical Facilities and Personnel	<ul style="list-style-type: none"> (As of Feb 2024) 3,716 medical institutions, 62 public health centers, 1,266 pharmacies, 48,353 medical personnel

Chapter 2. Age-Friendliness Survey of Incheon Metropolitan City

Section 1. Survey Overview

○ Overview

Category	Description
Survey Subjects	<ul style="list-style-type: none"> Adult men and women aged 65 and over residing in Incheon Metropolitan City
Sampling Method	<ul style="list-style-type: none"> Proportional allocation considering gender, age, and region (autonomous district) (Sampling frame: Ministry of Interior and Safety, Resident Registration Population Statistics as of Aug 31, 2024)
Survey Method	<ul style="list-style-type: none"> Face-to-Face interview
Survey Period	<ul style="list-style-type: none"> 2024.10.2.~10.18. (approx. 2.5 weeks)
Survey Tool	<ul style="list-style-type: none"> Utilized a Structured Questionnaire
Sampling Error	<ul style="list-style-type: none"> 95% Confidence Level $\pm 3.46\%$
Completed Samples	<ul style="list-style-type: none"> Total 803 samples
Survey Institution	<ul style="list-style-type: none"> Southern Post Co., Ltd.

○ Questionnaire Item Composition

Category	Description
Screening Questions	<ul style="list-style-type: none"> Age, Area of Residence, Duration of Residence, Gender
A. Age-Friendliness Assessment	<ul style="list-style-type: none"> Living environment, transportation, housing environment, social participation, respect and attitudes towards older people, civic engagement and employment, information provision and communication, health and social services in the current autonomous district of residence.
B. Perceptions and Policy Demands	<ul style="list-style-type: none"> Subjective age of older people Current biggest difficulties/problems Priorities for making Incheon Metropolitan City a good place to live for all citizens Public facilities needed or to be expanded in Incheon Metropolitan City Overall satisfaction with the area of residence (autonomous district)
C. Experience and Perceptions of Social Services	<ul style="list-style-type: none"> Awareness and experience of using senior welfare and care services, satisfaction with use, and future intention to use Reasons for dissatisfaction with senior welfare and care services
D. General Characteristics	<ul style="list-style-type: none"> Marital Status, Highest Level of Education, Co-habitants, Subjective Economic Status, Physical Health Status, Mental Health Status, Monthly Average Household Income

Section 2. Respondent Characteristics

Category	Description
Gender	• Female (52.9%) > Male (47.1%)
Age	• 65~69 years (31.8%) > 70~74 years (24.5%) > 80+ years (23.2%) > 75~79 years (20.5%) • Average 73.7 years
Area of Residence	• Namdong-gu (13.9%) > Bupyeong-gu (13.8%) > Michuhol-gu (13.4%) > Seo-gu (13.1%) in order
Duration of Residence	• 10 years or more (74.3%) > 5 years or more ~ less than 10 years (17.9%) > 3 years or more ~ less than 5 years (6.5%) • Average 9.1 years
Marital Status	• Married (76.5%) > Widowed (18.6%) > Divorced (4.9%) > Single (0.1%)
Highest Level of Education	• High School Graduate (45.1%) > Middle School Graduate (23.4%) > Elementary School Graduate (20.2%) > College Graduate or higher (7.1%) > No formal education (4.2%)
Subjective Economic Status	• Middle (51.6%) > High (24.4%) > Low (24.0%)
Subjective Physical Health Status	• High (41.2%) > Middle (38.2%) > Low (20.5%)
Subjective Mental Health Status	• High (55.0%) > Middle (34.9%) > Low (10.1%)
Monthly Average Household Income	• Less than 1~2 million KRW (33.0%) > 3 million KRW or more (27.8%) > Less than 2~3 million KRW (25.3%) > Less than 1 million KRW (13.9%) • Average 2.1 million KRW

Section 3. Analysis Method

○ Satisfaction calculation by converting a 5-point Likert scale to a 100-point scale

Category	①	②	③	④	⑤
5-point Likert Scale	1	2	3	4	5
100-point Conversion Standard	0.0	25.0	50.0	75.0	100.0

○ Importance-Satisfaction Analysis: IPA (Importance-Performance Analysis)

- Divides areas into quadrants based on the relative importance and satisfaction scores of items, to identify areas where the greatest effect can be achieved through improvement efforts.
- The importance of items is calculated using regression coefficients derived from a regression analysis of absolute satisfaction with item scores.

○ Data collected underwent editing ⇨ coding, punching ⇨ data cleaning processes, and were then processed using the SPSS statistical program.

- The results of the Incheon Metropolitan City Age-Friendliness Survey conducted in 2018, 2021, and 2024 were surveyed using a 5-point Likert scale, and in this study, they were converted to a 100-point scale for comparison.

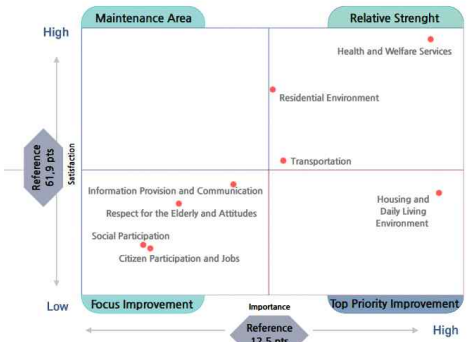
Research Title	Survey Subjects	Survey Area	Survey Year	Survey Questions
「A Study on the Perception of Older Adults in Incheon Metropolitan City towards Local Communities: Focusing on the Age-Friendly Environment」 (Ha Seok-cheol, Lee Seon-young, 2018)	1,515 older adults aged 65 and over	Incheon Metropolitan City 10 districts	2018	Composed of identical questions across 8 domains, 5-point Likert scale (① Not at all ~ ⑤ Very much so)
「2021 Incheon Metropolitan City Survey on the Living Conditions of Older Adults」 (Ha Seok-cheol, Kim Je-hee, 2021)	1,009 older adults aged 65 and over		2021	
「Incheon Metropolitan City Age-Friendly City 2nd Phase Action Plan (2025~2029)」 (Kwon Mi-ae, Lee Hoon-hee, Kim Seong-jung, 2024)	803 older adults aged 65 and over		2024	

- In the case of sample surveys, a certain level of sampling error occurs, so the sampling error corresponding to the observed percentage of the number of cases must be considered.
- When the number of response cases is small ($n < 30$), it can be affected by extreme values, so caution is required when interpreting comparisons between overall values or detailed groups.

Section 4. Survey Results

1. IPA Analysis Results

Domain	Satisfaction (Points)	Importance (%)	Domain Classification
Residential (District) Environment	68.4	13.3	Relative Strength
Transportation	63.0	13.8	Relative Strength
Residential (Housing) Daily Life Environment	60.1	29.6	Top Priority for Improvement
Social Participation	56.2	0.5	Focused Improvement
Respect and Attitudes towards Older People	59.5	5.3	Focused Improvement
Civic Engagement and Senior Jobs	56.0	1.3	Focused Improvement
Information Provision and Communication	61.1	9.4	Focused Improvement
Health and Welfare Services	71.2	26.9	Relative Strength



The diagram is a 2x2 matrix for Importance-Performance Analysis (IPA). The vertical axis represents Satisfaction (61.9 pts reference), ranging from Low to High. The horizontal axis represents Importance (12.5 pts reference), ranging from Low to High. The quadrants are labeled: Top-Left (Maintenance Area), Top-Right (Relative Strength), Bottom-Left (Focus Improvement), and Bottom-Right (Top Priority Improvement). Data points are plotted as follows: Health and Welfare Services (High Satisfaction, High Importance), Residential Environment (High Satisfaction, Medium Importance), Transportation (Medium Satisfaction, Medium Importance), Information Provision and Communication (Medium Satisfaction, Low Importance), Respect for the Elderly and Attitudes (Medium Satisfaction, Low Importance), Social Participation (Low Satisfaction, Low Importance), Citizen Participation and Jobs (Low Satisfaction, Low Importance), and Housing and Daily Living Environment (Medium Satisfaction, High Importance).

2. 2024 Age-Friendliness Assessment Results

○ Age-Friendliness across 8 Domains

Domain	Content
Outdoor Spaces and Buildings	<ol style="list-style-type: none"> 1) Accessibility of parks and walking trails near residential areas (70.9 points) 2) Cleanliness of autonomous districts and sufficient pedestrian signal time at crosswalks near residences (70.7 points each) 3) Convenience of using public restrooms (69.8 points) 4) Crime safety in residential areas (69.7 points) 5) Structural convenience of sidewalks (63.9 points) 6) Passage convenience of sidewalks (63.1 points)
Transportation	<ol style="list-style-type: none"> 1) Ease of access to destinations (72.4 points) 2) Convenience of bus stops (70.3 points) 3) Safety of bus use (63.9 points) 4) Readability of traffic signs (63.4 points) 5) Readability of public transportation information (63.3 points) 6) Possibility of taxi carrying mobility aids (62.3 points) 7) Convenience of stairs and seats in public transportation (45.5 points)
Housing	<ol style="list-style-type: none"> 1) Availability of basic facilities in residential facilities (water (hot water), gas, electricity, water and sewage facilities, etc.) (69.7 points) 2) Electrical accident safety of residential facilities (68.5 points) 3) Crime safety of residential facilities (67.8 points) 4) Flood safety of residential facilities (67.1 points) 5) Fire safety of residential facilities (66.7 points) 6) Cold wave safety of residential facilities (64.3 points) 7) Heatwave safety of residential facilities (62.2 points) 8) Burden of housing costs (41.0 points) 9) Desire for residential facility renovation (33.8 points)
Social Participation	<ol style="list-style-type: none"> 1) Sufficiency of social participation activities (60.9 points) 2) Ease of access to information on social participation activities (59.9 points) 3) Ease of access to social participation activities (59.0 points) 4) Convenience of facility use (56.2 points) 5) Availability of spaces for intergenerational exchange (52.3 points) 6) Appropriateness of social participation activity costs (49.1 points)
Respect and Social Inclusion	<ol style="list-style-type: none"> 1) Friendliness of public officials (72.9 points) 2) Regularity of intergenerational exchange opportunities (60.3 points) 3) Positive portrayal of older people in mass media (57.0 points) 4) Sufficiency of participation opportunities as key actors (55.5 points) 5) Sufficiency of role opportunities in intergenerational exchange (51.9 points)

Domain	Content
Civic Engagement and Employment	1) Sufficiency of volunteer activity opportunities (58.3 points) 2) Sufficiency of job support programs and institutions (57.8 points) 3) Adequacy of salary (56.0 points) 4) Sufficiency of jobs (55.0 points) 5) Ease of access to job creation/startup information (54.4 points) 6) Sufficiency of vocational training and education opportunities (54.3 points)
Communication and Information	1) Regularity of information provision related to older people (64.8 points) 2) Ease of access to PCs and the internet (64.0 points) 3) Readability of public printed materials (62.5 points) 4) Readability of text on unmanned kiosks (59.7 points) 5) Structural convenience of unmanned kiosks (54.7 points)
Community Support and Health	1) Sufficiency of health services (72.8 points) 2) Convenience and safety of health facility use (71.9 points) 3) Sufficiency of welfare services (71.5 points) 4) Convenience and safety of welfare facility use (70.8 points) 5) Ease of access to welfare information (70.6 points) 6) Ease of access to health information (69.6 points)

○ Analysis of Age-Friendliness Changes in Incheon Metropolitan City

(Unit: Points)

Domain	Survey Time Point			Change (A-C)	Change (B-C)
	2018(A)	2021(B)	2024(C)		
1) Outdoor Spaces and Buildings	63.9	61.4	68.4	4.5	7.0
2) Transportation	58.3	60.3	63.0	4.7	2.7
3) Housing	62.8	66.0	60.1	-2.7	-5.9
4) Social Participation	52.1	46.2	56.2	4.1	10.0
5) Respect and Social Inclusion	54.2	47.9	59.5	5.3	11.6
6) Civic Engagement and Employment	48.6	46.9	56.0	7.4	9.1
7) Communication and Information	52.7	56.1	61.1	8.4	5.0
8) Community Support and Health	59.9	64.4	71.2	11.3	6.8

○ Subjective Perceptions and Policy Demands

Category	Content
Subjective Age of Older People	<ul style="list-style-type: none"> 66~70 years (44.2%), 71~75 years (41.6%), average 71.7 years
Biggest Difficulty or Problem Currently Experienced	<ul style="list-style-type: none"> Economic problems (cost of living, etc.): 1st priority (35.9%), 1st+2nd priorities (52.3%) Personal health problems: 1st priority (25.0%), 1st+2nd priorities (46.5%)
Priorities for Creating a Livable City	<ul style="list-style-type: none"> Accessibility of convenience facilities: 1st priority (32.4%), 1st+2nd priorities (63.4%) Stability of residential environment, appropriateness of housing costs: 1st priority (23.2%), 1st+2nd priorities (52.1%)
Public Facilities Needed in Incheon Metropolitan City	<ul style="list-style-type: none"> Healthcare facilities: 1st priority (45.6%), 1st+2nd priorities (59.0%) Social welfare facilities: 1st priority (24.7%), 1st+2nd priorities (64.6%)
Overall Satisfaction with Area of Residence (Autonomous District)	<ul style="list-style-type: none"> Satisfied (72.1%), average 68.4 points

○ Social Service Experience and Perceptions

Category	Content
Awareness	<ul style="list-style-type: none"> High awareness: Senior Welfare Centers, Senior Citizen Centers (Gyungrodang), Senior Classrooms (98.8%) Low awareness: Elderly Protection Agencies (44.0%)
Experience of Use	<ul style="list-style-type: none"> High experience of use: Basic Pension Support (66.5%) Low experience of use: Senior Nursing Facilities, Senior Shared Living Homes (0.9%)
Satisfaction with Use	<ul style="list-style-type: none"> High satisfaction with use: Basic Pension Support (92.4%) Low satisfaction with use: Senior Nursing Facilities, Senior Shared Living Homes (28.6%)
Future Intention to Use	<ul style="list-style-type: none"> High future intention to use: Basic Pension Support (88.2%) Low future intention to use: Elderly Protection Agencies (32.3%)