

MEDDROP KOREA 2026

ANNUAL REPORT

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MEDDROP

Community-Based Pharmaceutical Waste Collection Project Necessities

- Apartment communities engaged
- Residents surveyed
- Total pharmaceutical waste collected
- Collection events conducted
- Estimated households reached
- Government or community partnerships

1. Why This Matters

Public Health and Environmental Challenges

If unused medicine is disposed of improperly, it pollutes the environment, including water and land, and harms the organisms living within those environments. Human drinking water and food sources may also become contaminated, creating negative consequences for public health and society as a whole. Beyond protecting the environment, our goal is to improve people's quality of life by making safe medication disposal more accessible and convenient. Many residents, especially elderly individuals or those with limited mobility, may find it difficult to travel to pharmacies or community centers where disposal bins are typically located. By bringing collection bins directly into apartment communities, we hope to reduce these barriers, encourage proper disposal habits, and create healthier, safer living environments for residents.

Source:

<https://www.pcccr.go.kr/base/board/read?boardManagementNo=67&boardNo=3402&page=1&searchCategory=&searchType=&searchWord=&menuLevel=3&menuNo=19>

Why Apartment Communities Were Selected

Apartment communities were selected as the focus of our study because of their potential for effective outreach. Also, collection bins can only be found in pharmacies or community centers, so we decided to assist the residents of apartment communities by installing collection bins within their residence.

This way, they do not have to walk far to dispose of medicine, and this especially helps the elderly. The seniors may not have the best walking conditions, and they are also most likely to use a lot of medicine because of their age.

Guiding Idea

Healthcare accessibility begins where people live.

2. Pilot Project: An Apartment Community Case Study

Successfully implementing a community-based pharmaceutical waste collection system requires two main features: a varied demographic that is open to recycling and disposing of their medication, and collection boxes that are well-maintained and easily accessible.

Why This Apartment Community Was Selected

We selected the Lotte Castle Apartment in Yeongtong as the main location for our study for a few practical reasons.

First and foremost, Lotte Castle is a major apartment complex that houses a large number of households, with these residents representing a combination of multiple demographics, including working adults, elderly residents, and families. This allowed us to reach a varied demographic effectively, establishing the relevance and impact of this initiative.

Furthermore, Lotte Castle has organized residential community systems that allow us to gain access to locations to place disposal bins and monitor the disposal bins safely.

Collection Box Installation

We strategically chose to install the collection bins in front of the residential community centers because of their accessibility and visibility. Community centers are among the most frequently visited locations in apartment complexes and a prominent “shared space” for residents.

In addition, community centers are centrally located and well-known to residents, allowing residents to pinpoint the exact location they need to access in order to dispose of their medicine.

Monthly Collection

In order to ensure that these locations were well-maintained and retained their operational value, we visited the medicine disposal locations monthly to sort out recycled and unused medication manually according to the guidelines in that district.

Educational Posters and Community Engagement

After installing these collection bins in these locations, we created educational posters that informed residents of the methods and the locations to safely dispose of their unused medications.

To measure community engagement and encourage more residents to recycle their medications, we distributed pamphlets and surveys, asking residents how often they disposed of their medications properly and measuring their awareness toward the existence of collection bins to safely dispose of their medications.

Community-Based Collection Model

This project presents a model that demonstrates how community-based pharmaceutical waste collection can be implemented.

3. Measuring Community Impact

Operational Results

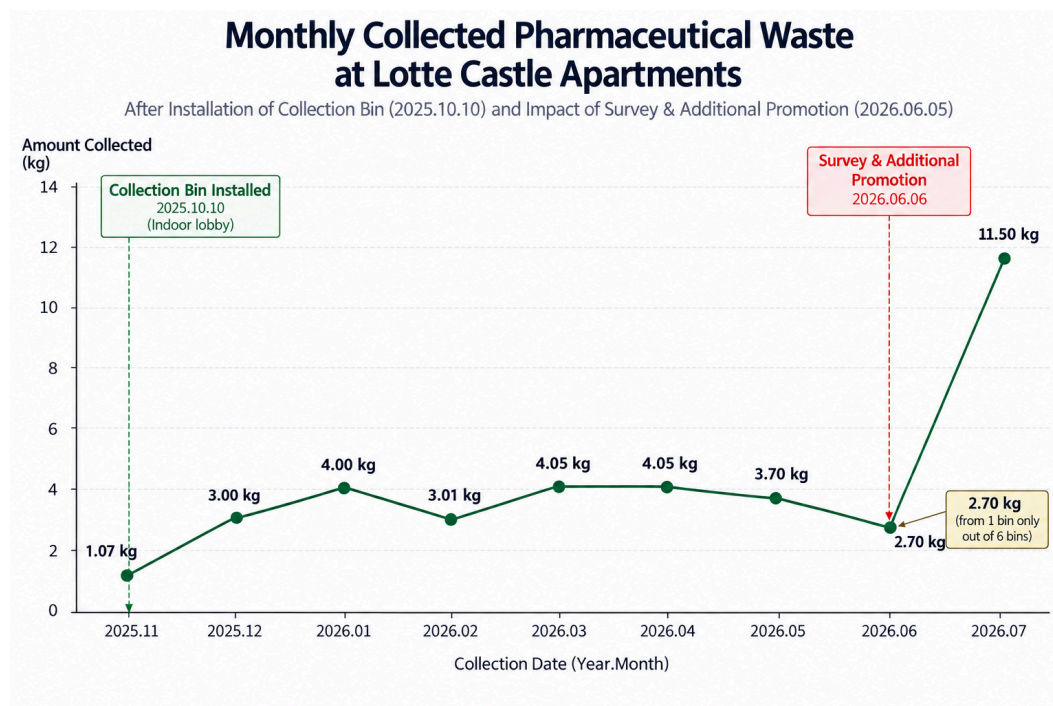
Total Pharmaceutical Waste Collected During the Year

- 2025, November–December: 4.07 kg
- 2026, January–May: 18.81 kg

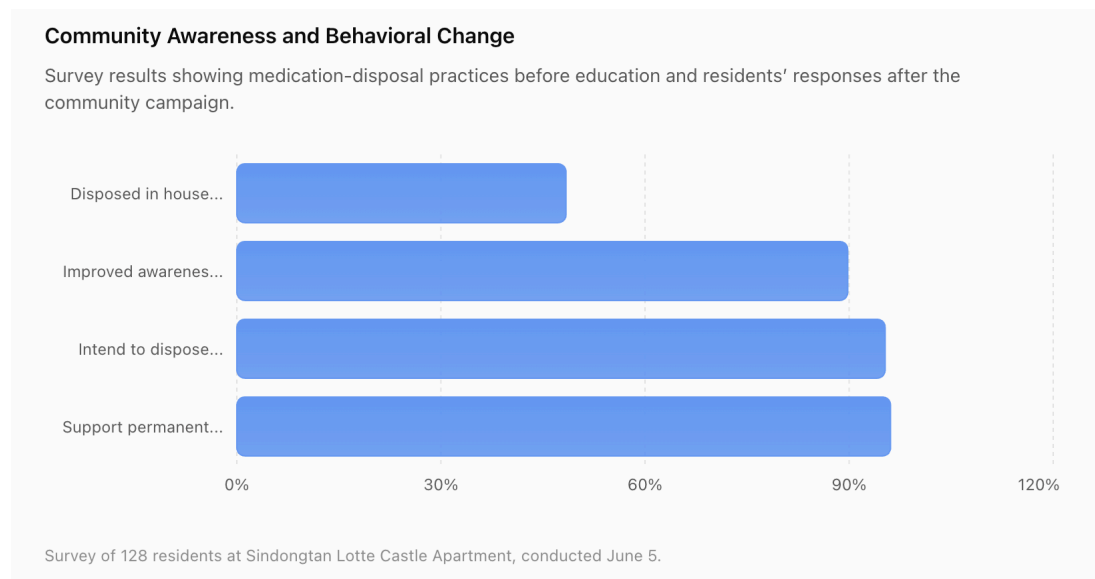
Monthly Collection Trend

- 2025.11.12: 1.07 kg
- 2025.12.04: 3 kg
- 2026.01.01: 4 kg
- 2026.02.11: 3.01 kg
- 2026.03.17: 4.05 kg
- 2026.04.23: 4.05 kg
- 2026.05.14: 3.7 kg
- 2026.06: 2.7 kg
- 2026.07: 11.05 kg

Graph of Medicine Collection:



Graph of Change in Awareness:



Caption:

The survey results suggest that community education and convenient collection infrastructure can substantially improve awareness and encourage proper medication-disposal behavior. Although 48.4% of respondents reported previously disposing of medications in household trash, 89.8% demonstrated improved awareness after the campaign, 95.3% intended to dispose of medications properly in the future, and 96.1% supported permanent collection bins.

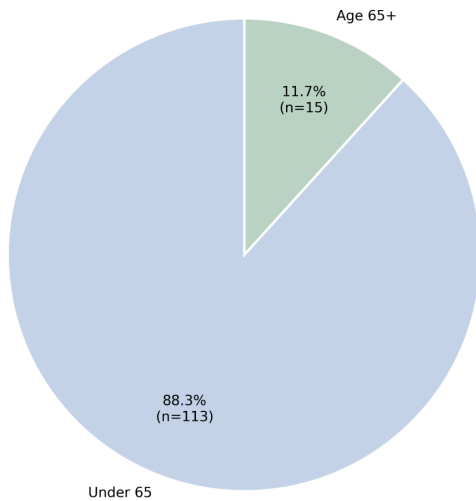
Community Survey

The survey was intended for the understanding of people who live in the apartment area on the medicine disposal bin. From these findings, we can expand our influence, such as best placement, spreading information, and other areas.

A total of 128 people answered this survey, which took place in Sindongtan Lotte Castle Apartment during June 5th.

- Survey purpose: Understanding residents' awareness of the medicine disposal bin
- Number of respondents: 128
- Survey location: Sindongtan Lotte Castle Apartment
- Survey period: June 5th

Respondent Age: 65+

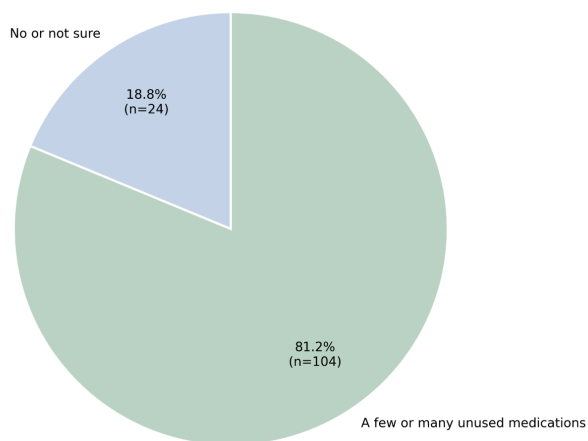


Household Medication Storage

81.2%

Many households continue to store unused or expired medications, highlighting the need for convenient disposal options.

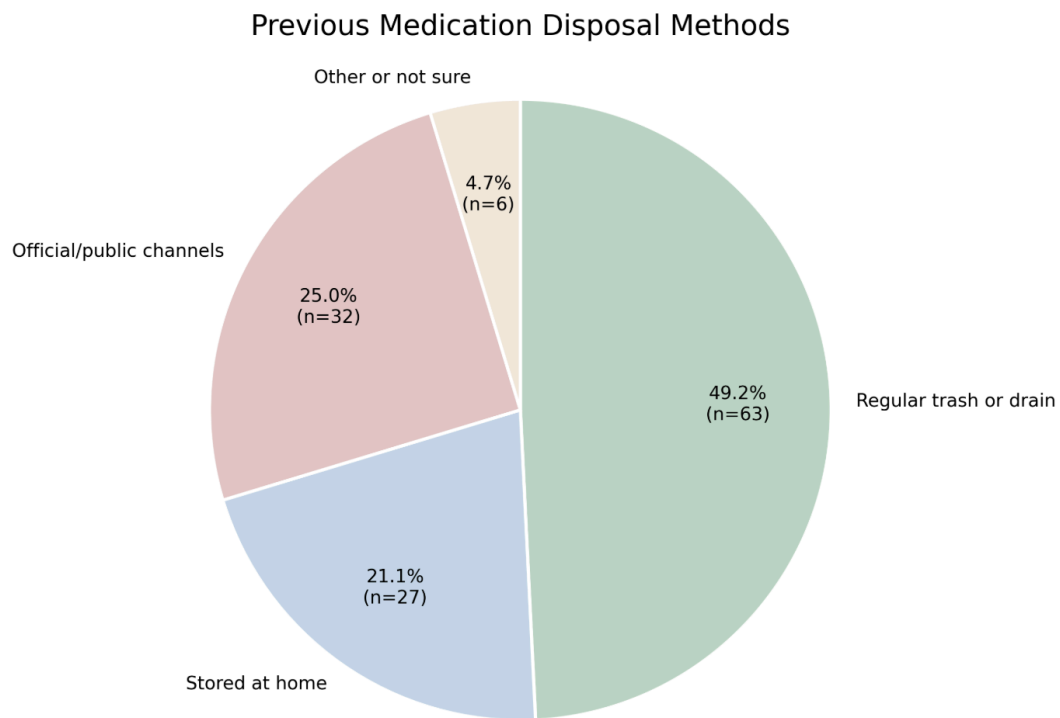
Households With Unused Medications



Disposal Practices Before Community Education

49.2%

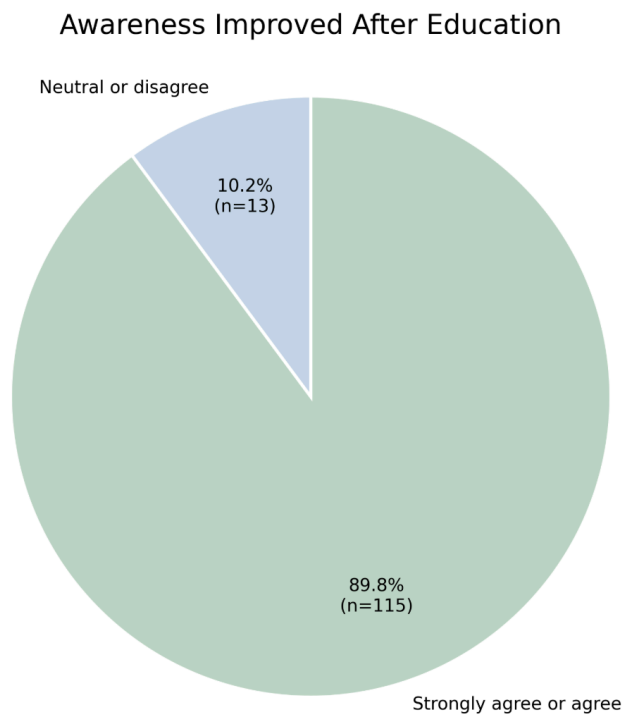
Nearly half of respondents previously disposed of medications in household trash before receiving information about proper disposal.



Awareness Change

89.8%

The educational campaign substantially improved residents' understanding of proper medication disposal.

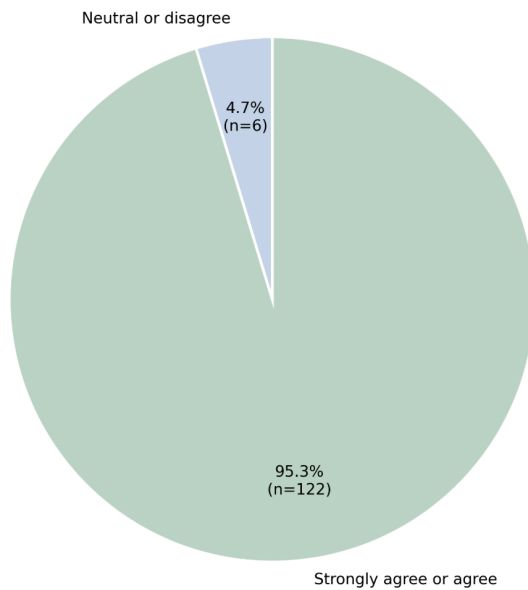


Intended Behavioral Change

95.3%

Most respondents expressed an intention to dispose of medications properly in the future.

Intention to Dispose of Medicine Properly

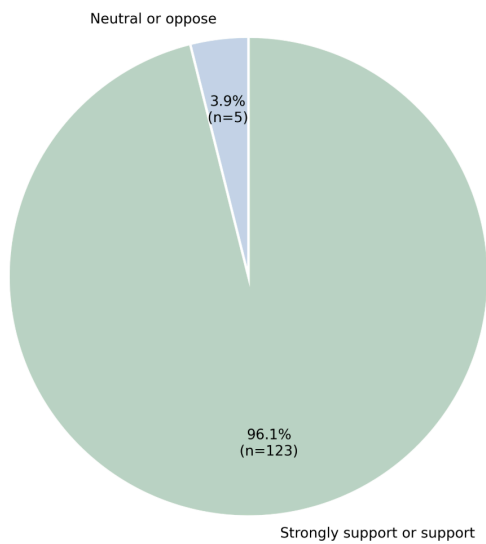


Support for Permanent Collection Systems

96.1%

Residents overwhelmingly supported establishing permanent pharmaceutical collection bins within apartment communities.

Support for a Permanent Collection System



4. What We Learned

Based on both the operational data and survey findings, the key lessons were:

- Apartment communities provide a practical setting for medication collection.
- Accessibility influences community participation.
- Education improves awareness and encourages behavioral change.
- Residents support permanent collection infrastructure.

These conclusions are presented as evidence-based observations.

5. Looking Ahead

The next phase is to expand the pilot to additional apartment communities, especially areas where disposal rates are low.

Source: <https://data.seoul.go.kr/dataList/OA-22374/F/1/datasetView.do>

Future Plans

- Expand the pilot to additional apartment communities.
- Continue monthly collection activities.
- Strengthen partnerships with local governments and community organizations.
- Continue collecting longitudinal data.
- Support the broader adoption of community-based pharmaceutical collection systems.