

# Guangzhou Community Elderly Fall Prevention Appropriate Technology Promotion Project Plan

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# **Guangzhou Community Elderly Fall Prevention Appropriate Technology Promotion Project Plan**

## **1、 Research Background**

Population aging is a significant issue and challenge currently faced by China. The "2023 Statistical Bulletin on the Development of Civil Affairs" shows that by the end of 2023, the number of people aged 60 and above in China had exceeded 297 million, accounting for 21.1% of the total population, officially entering a "deeply aging" society. The health problems brought by aging have become increasingly prominent. Falls are the leading cause of injury and death among the elderly, regarded as a precursor to death or severe injury. Once a fall occurs, the elderly population may face adverse events such as physical injuries, psychological trauma, reduced quality of life, or even death. Studies show that the fall rate among community-dwelling elderly people aged 60 and above in China is 12.4%, while in Guangzhou it is 19.3%, which is relatively high nationwide. China has a large elderly population in urban communities, making health protection and risk prevention under the concept of active aging increasingly crucial. At present, most elderly people in our city live in communities, and approximately 61.7% of falls occur at home or in other community environments. Communities are the main battleground for implementing the strategy of "prevention first, shifting the focus forward, and sinking the center of gravity" to prevent and control chronic diseases. However, there are currently no evidence-based, scientific, systematic intervention technologies, models, or tools that can be directly promoted in our city's communities.

In 2024, the Guangzhou Center for Disease Control and Prevention (CDC) selected a series of replicable health education components for fall prevention based on preliminary work, literature review, and field research, and implemented a pilot project in Baiyun District, Guangzhou, to prevent falls among the elderly. According to previous research findings, environmental assessment guidance has demonstrated significant efficacy in preventing falls among community-dwelling elderly individuals. Building on these results, this project aims to adopt environmental assessment guidance as an intervention measure, targeting elderly residents in Huadu District communities. A randomized controlled trial will be conducted to further

validate the effectiveness of environmental assessment guidance in preventing falls among community-dwelling elderly individuals, while exploring implementation barriers, facilitators, and the acceptability, fidelity, and feasibility of the intervention during its rollout. This initiative seeks to provide scientific references and practical tools for fall prevention services tailored to primary healthcare institutions in our city, ultimately achieving the goals of reducing fall incidence and improving the quality of life among the elderly.

## **II. Research Objectives**

### **(1) General Research Objective**

This study, conducted as a randomized controlled trial, aims to investigate the effectiveness of environment-based assessment-guided interventions in reducing fall incidence among elderly residents in eight community sites across Huadu District. The research will identify implementation barriers and facilitators, while systematically evaluating the intervention's acceptability, fidelity, and feasibility during scaling-up. The findings will provide evidence-based support for broader application, ultimately achieving the dual objectives of lowering fall rates and improving quality of life for the elderly through citywide implementation.

### **(2) Specific Objectives**

Through interventions targeting the population, the following outcomes are achieved within 6 months and 12 months after the implementation of the intervention:

1. With the elderly residents in Huadu District communities as the intervention subjects, this study further validates the efficacy of the intervention measures from the preliminary pilot project in preventing falls among community-dwelling elderly through randomized controlled trials, and clarifies the practical role of these measures in reducing the incidence of falls among community-dwelling elderly.

2. Conduct in-depth analysis of the obstacles and facilitators encountered during the implementation of the intervention, identify key factors influencing its successful advancement, and provide evidence for optimizing the implementation process.

3. Evaluate the acceptability, fidelity, and feasibility of the intervention during its implementation, assess the acceptance level among community elderly individuals and relevant

staff, measure whether the core content and implementation standards can be maintained during promotion, and determine the practical operability of its application in different community settings, thereby laying the foundation for subsequent broader-scale implementation.

### **III. Research Content**

This study enrolled eligible elderly individuals aged 60 years and above from 8 communities in Huadu District. Basic information, fall occurrence and awareness, fall efficacy, and standing-walking ability were collected through questionnaires. Participants were randomly assigned to an intervention group and a control group. The intervention group received personalized modification recommendations based on environmental assessment results, along with free distribution and guidance on the use of anti-slip mats and night lights, as well as brief safety education. The control group served as a blank control. The intervention lasted for 12 months, during which monthly follow-ups were conducted to collect data on fall occurrences in both groups. Post-intervention, the incidence of falls and knowledge awareness of fall prevention were compared between the two groups. The entire study was conducted with standardized training for evaluators, standardized intervention tools to ensure research quality, and strict adherence to ethical requirements to protect participants' rights.

### **IV. Research Methods**

The researchers selected eligible elderly individuals as study subjects from the elderly population using the Study Subject Screening Form (Appendix 3), employing methods such as questionnaires and scale assessments.

#### **(1) Study Subjects**

Eight community health service centers (clinics) in Huadu District, Guangzhou City were included in the study area. When sampling, residential committees (villages) with as consistent socio-economic development status, population age, and gender ratio as possible were considered, while ensuring balanced sample distribution. The principle of cost-effectiveness and feasibility of the sampling scheme were also taken into account. Eligible elderly individuals were selected as

intervention subjects through centralized public recruitment, door-to-door recruitment, face-to-face interviews, and on-site evaluations, and then randomly assigned to the intervention group and control group.

### **1. Inclusion and Exclusion Criteria for Study Subjects**

(1) Inclusion criteria:

- ✓ Ages 60 to 80, including 60 and 80
- ✓ Living in the community
- ✓ Expected to reside at current place of residence within the next 12 months
- ✓ The ability to walk 50 meters without assistive devices

(2) Exclusion criteria:

- ✗ Exclusion of subjects with acute illnesses or acute phases of chronic diseases
- ✗ elderly individuals who explicitly decline participation in the 12-month follow-up

(3) Proportion requirements for recruitment targets

To enhance the homogeneity of the study subjects, the following gender and age criteria may be referred to for recruitment:

① Male population accounts for 20%, female population for 80%; ② 60-65 years old population accounts for 30%-35%; ③ 66-70 years old population accounts for 30%-35%; ④ 71-75 years old population accounts for 30%-35%; ⑤ 76-80 years old population accounts for less than 10%.

### **(II) Sample Size Estimation**

Based on scientific calculations and practical work requirements, this project requires a total of 320 participants. Each group needs a sample size of  $n=160$ , with 40 individuals recruited per sub-district (town).

### **(3) Intervention Groups**

The study subjects were randomly assigned using a completely randomized method. Statisticians independent of the research team generated random numbers via computer to allocate the 8 community health service centers (clinics) recruited subjects to two experimental condition groups. After grouping, homogeneity of key variables (including age, gender, and fall

risk assessment scores) between the control group and intervention group was verified. Following assignment, a basic information database for the subjects was established. This study implemented blinding only for data collectors and analysts.

#### **(4) Main Intervention Activities**

##### **1. Intervention timing and intensity**

The intervention group was given home fall environmental risk factors assessment and renovation guidance once in the 4th-6th week after baseline survey.

##### **2. Intervention Methods, Intervention Content, and Intervention Tools**

###### **(1) Intervention Content**

① Assess the indoor environmental factors related to falls in the elderly's daily living environment, including the living quarters, corridors, or courtyards;

② Provide on-site guidance for identified environmental risk factors, and prepare two written environmental assessment and remediation proposals: one to be archived and entered by the investigator, and the other to be retained for use by the investigated party.

③ Provide at least the following services: night light, anti-slip mat for the bathroom, fall prevention warning signs, and double-sided adhesive carpet mats. Regions with adequate resources are encouraged to offer additional renovation services.

###### **(2) Intervention Methods**

After appointment, the project staff conducted fall risk assessments at the intervention group's homes during scheduled visits.

###### **(3) Intervention Tools**

When conducting guidance on the assessment of fall risk factors in home environments, project staff primarily utilize the "Home Environment Risk Factors and Renovation Recommendations for Elderly Falls" (Appendix 4) to evaluate each item and provide renovation suggestions. Other intervention tools include night lights, anti-slip mats, fall prevention warning signs, double-sided tape, and other assistive devices.

##### **3. Intervention Implementation Personnel**

Trained project community social workers or community health service center staff.

#### **4. Implementation Record**

During the assessment of home environment risks, with the consent of the research subjects, records such as images, videos, and text should be used to document the assessment time, participants, assessment process, results, and guidance recommendations. The "Home Environment Assessment and Improvement Guidance Work Record Form" (Appendix 6) should be completed. Special attention should be paid to collecting before-and-after comparisons of environmental modifications.

### **V. Project Evaluation**

The project evaluation includes baseline survey evaluation, effect evaluation and economic evaluation.

#### **(1) Baseline Survey and Assessment**

##### **1. Baseline status of the study subjects before intervention (baseline survey)**

###### **(1) Implementation Time**

January 2026 – March 2026.

###### **(2) Survey subjects**

All the elderly in the study group.

##### **2. Baseline survey assessment content**

(1) Basic demographic information: name, gender, age, address, contact details, ethnicity, cohabitation status, occupational status, educational level, etc.

(2) Physical activity status: Daily physical activity content.

(3) Medical conditions and medication status: types and quantities of diseases, types and quantities of medications.

(4) Fall-related information: specific details of fall events occurring within the past year, and the level of fall efficacy.

(5) Standing-to-Walking Test: A functional mobility assessment tool.

(6) Evaluation Methods and Tools

① appraisal procedure



According to the different evaluation contents, the questionnaire survey, on-site observation and other methods were selected for evaluation.

## ② Assessment Tools

Self-administered questionnaire: basic demographic information, physical activity status, disease and medication status, and fall occurrence (falling incidents within the past year).

Existing scales for measurement: The Elderly Fall Effectiveness Scale (EFSS) and the Quality of Life Scale (QLS).

The specific assessment methods and tools are provided in Annex 5.

**Table 1 Overview of Assessment Content, Methods, and Tools for Project Baseline Survey**

Evaluation content		appraisal procedure	Assessment tool
classify	project		
Basic demographic information	Name, Gender, Age, Address, Contact Information, Ethnicity, Education Level, Accommodation Status, Occupation Status	questionnaire survey	Annex 5: Survey and Assessment Form (Part 1)
Illness, Medication Medical conditions	Types and quantities of diseases, types and quantities of medications	questionnaire survey	Annex 5: Survey and Assessment Form (Part 2)
Information about falls	Fall event, history of falls	questionnaire survey	Annex 5: Survey and Assessment Form (Part 3)
	Knowledge, Belief, and Practice Related to Falls	questionnaire survey	Annex 5: Survey and Assessment Form (Part 4)
	fall efficacy	Scale measurement	Annex 5: Survey and Assessment Form (Part 5)
Quality of Life Scale	Activities of Daily Living (ADL) Status	scales survey	Annex 5: Survey and Assessment Form (Part VI)
tread	Stand-up-walk test	spot test	Annex 5: Survey and Assessment Form (Part 7)

## (7) Main Evaluation Indicators

① Indicators reflecting the occurrence of falls: incidence rate of falls (number), per capita

incidence rate of falls (number), and occurrence of fall-related injuries

Incidence rate of human casualties (number), incidence rate of falls and injuries (number).

② Reaction fall efficacy: scores on the fall efficacy assessment scale.

③ Reflecting daily living ability: Quality of life scale scores.

## **(II) Process Evaluation (Intervention Phase)**

### **1. Evaluation Time**

February 2026-February 2027 (full project implementation period)

### **2. Evaluation Object**

Study subjects and project team staff.

### **3. Assessment Content and Methods**

(1) Satisfaction of research subjects with group activities

After completing the intervention on household environmental assessment, guidance, and improvement in the community, the satisfaction level should be inquired and recorded in Attachment 6, the 'Household Environmental Assessment and Improvement Guidance Work Record Form'.

(2) Home visit guidance and assistance in environmental improvement

For households that have completed on-site visits, evaluate the implementation of guidance and assistance in modifying hazardous environmental factors. Calculate the completion rate of on-site guidance and assistance for environmental modifications (number of households actually visited and assisted  $\times$  100%). The record form is provided in Appendix 6, "On-site Environmental Assessment and Improvement Guidance Work Record Form."

### **(3) Effect Evaluation**

The study aims to evaluate the intervention effects at 6 months and 12 months after the intervention begins. The assessment of fall occurrence is conducted by collecting relevant data through a fall diary; changes in fall efficacy, knowledge, belief, and practice are measured through on-site survey tests.

#### **1. Data collection on fall occurrence in the study subjects**

(1) Evaluation Object

All subjects in the study group.

(2) Assessment Time

From January 2026 to December 2026, monthly data on falls were collected from the start of the intervention through its full 12-month period.

(3) Assessment Content

Basic information on falls, the same as the baseline survey assessment.

(4) Evaluation Methods and Tools

① The study subjects used the "Fall Occurrence Record Calendar" (Appendix 11) to document whether falls occurred.

② Staff collect the "Monthly Fall Occurrence Record Calendar" on a monthly basis and conduct detailed investigations into the recorded fall times using the "Elderly Fall Occurrence Survey Form" (Part 3 of Appendix 6) from the baseline survey.

2. First efficacy evaluation (at 6 months after the initiation of the first intervention)

(1) Evaluation Object

All subjects in the study group.

(2) Assessment Time

The assessment time for all study subjects should be calculated from the date of completion of the baseline survey evaluation. The first efficacy evaluation should be conducted after 6 months (with the control assessment time within  $\pm 7$  days).

(3) Assessment Content

The evaluation content includes: knowledge, attitude, and behavior related to falls, daily living ability and fall efficacy, as well as risk factors of home environment for elderly falls and renovation suggestions (including the elimination of risk factors).

(4) Evaluation Methods and Tools

Same baseline survey assessment methods and tools (Annex 6 Parts 3, 4, 5, 6, 7).

3. Second efficacy evaluation (at 12 months after the initiation of the first intervention)

(1) Evaluation Object

All subjects in the study group.

## (2) Assessment Time

The assessment time for all study subjects should be calculated from the date of completion of the baseline survey evaluation. A second efficacy evaluation should be conducted after 12 months (with the control assessment time within  $\pm 7$  days).

## (3) Assessment Content

The assessment includes: the same as the "Home Environment Risk Factors and Recommendations for Elderly Fall Prevention" (Annex 4) and the baseline survey content (Annex 5 Parts 3, 4, 5, 6, 7).

## (4) Evaluation Methods and Tools

The same baseline survey evaluation methods and tools.

## (4) Economic Evaluation

From the social perspective, targeted cost-effectiveness and cost-utility analyses can help evaluate the actual efficacy of interventions in preventing falls among the elderly, thereby providing data support for government decision-makers to formulate rational intervention policies.

### 1. Municipal Project Office

(1) Collection time: 6 months after intervention completion (after the 6-month assessment) and 12 months after intervention completion (after the 12-month assessment).

(2) Data Collection Items: The municipal project office's intervention cost assessment primarily covers two components: direct expenditure on implementation and time investment. Direct costs include travel, venue, expert, program, manual production, and survey tool expenses. Time investment encompasses the municipal project office's time allocated to project design, preparation, initiation and management, primary training delivery, secondary training participation, and supervision activities.

(3) Collection method: The principal responsible person of the municipal project office shall independently complete the "Investigation Form on Workload and Cost Expenditure of the Elderly Fall Intervention Project" (Attachment 8) based on the detailed financial expenditure records.

### 2. District-level Project Office

(1) Collection time: 6 months after intervention completion (after the 6-month assessment) and 12 months after intervention completion (after the 12-month assessment).

(2) Data Collection Items: The district-level project office's intervention cost collection primarily includes two categories: direct expenditure for implementing fall prevention programs and time investment. Direct expenditure covers survey questionnaires, measurement tools, home environment improvement supplies, and labor costs. Time investment encompasses participation in primary training, secondary training, recruitment/screening of community seniors, baseline surveys, intervention implementation, process evaluation, and outcome assessment.

(3) Collection method: The principal responsible person of the district-level project office shall independently complete the "Investigation Form on Workload and Cost Expenditure of Elderly Fall Intervention Project" (Attachment 9) based on the detailed financial expenditure records.

### **3. Primary healthcare institutions**

(1) Collection time: 6 months after intervention completion (after the 6-month assessment) and 12 months after intervention completion (after the 12-month assessment).

(2) Data Collection Items: The intervention cost assessment for grassroots project offices primarily comprises two components: direct expenditure on implementing fall prevention programs and time investment. Direct costs include expenses for printing questionnaires, purchasing assessment tools and home environment improvement supplies, as well as labor fees. Time investment for fall prevention programs covers activities such as attending primary and secondary training sessions, recruiting/screening community seniors, conducting baseline surveys, implementing interventions, and performing outcome evaluations.

(3) Collection method: The principal responsible person of the grassroots project office shall independently complete the "Investigation Form on Workload and Cost Expenditure of the Elderly Fall Intervention Project" (Attachment 10) based on the detailed financial expenditure records.

### **4. Collection of Relevant Costs for the Study Subject**

(1) Collection time: From the start of intervention to the end of final line assessment, data were collected monthly (accompanied by a fall diary).

(2) Collection content: The fall-related costs of the study subjects primarily include outpatient/emergency visits, hospitalization expenses, medication costs, nutritional supplement expenses, as well as home care and nursing/childcare service fees incurred due to falls during the project period.

(3) Collection method: Staff from the grassroots project office used the "Investigation Form on Fall-Related Expenses During Intervention Period of Study Subjects" (Appendix 11) to obtain data through face-to-face interviews, combined with medical expense records and financial documents of the elderly.

Since a single fall in the study subject may result in different types of expenses, when staff members fill out the "Investigation Form on Fall-Related Expenses During Intervention Period" (Appendix 11), they should record the corresponding sections of Appendix 5 Part 3 based on the actual treatment methods used by the study subject. Possible treatment scenarios include self-management (Appendix 11 Part 1), outpatient/emergency visits (Appendix 11 Part 2), hospitalization (Appendix 11 Part 3), out-of-hospital rehabilitation (Appendix 15 Part 4), and follow-up examinations (Appendix 11 Part 5). If the study subject requires hospitalization, the final expenses should be recorded upon discharge. The collected information should not duplicate data from the previous month. For rehabilitation treatments, those received during outpatient/emergency visits are included in the outpatient/emergency expense form (Appendix 11 Part 2), those during hospitalization are counted toward the total hospitalization expenses (Appendix 11 Part 3), and out-of-hospital rehabilitation is recorded under out-of-hospital rehabilitation expenses (Appendix 11 Part 4).

## **VI. Statistical Analysis Methods**

### **(1) Data Collection**

All research data collection and management will be conducted via the REDCap platform. After the initial database is established, it will undergo further verification and cleanup to identify logical errors and missing values. Telephone follow-ups with participants will be conducted to confirm and correct any discrepancies, ultimately resulting in the final database.

### **(II) Data Organization and Analysis**

Statistical analysis was performed using SPSS 20.0. Differences in baseline demographic characteristics, disease characteristics, prior fall history, and levels of social support between the two groups were compared, with variables showing significant differences being adjusted in subsequent analyses. This study planned to evaluate the intervention using intention-to-treat (ITT) analysis. Descriptive analysis: Statistical descriptions were conducted for primary and secondary outcome variables, intervention implementation, and other confounding factors. Independent samples t-tests (for continuous variables, such as the Geriatric Fall Effect Energy Scale score, Quality of Life Scale score, and Geriatric Fall Knowledge, Belief, and Practice Scale score) and chi-square tests (for categorical variables, such as attitudes toward the intervention strategy and fall incidence rate) were used to compare intergroup differences.

The study will employ the Incremental Cost-Effectiveness Ratio (ICER) to evaluate economic benefits, which represents the additional cost required to achieve each incremental unit of effect.

## **VII. Security Assurance**

(1) When conducting various activities such as screening, assessment, training, and exercise for the project, the primary principle should be to ensure the safety and physical health of the study subjects.

(2) During all screening and assessment procedures, participants should be clearly informed of the testing methods and potential risks. The program may conduct demonstrations, and participants are permitted to practice before formal measurements. Staff should remind participants to perform within their capabilities and not to pursue "good results" in the test outcomes.

(3) When conducting various assessment activities, staff should pre-cleanse hazardous factors in the environment, removing slippery, uneven surfaces, obstacles, and other potential environmental hazards that may cause injuries to study subjects. Additionally, seating or similar facilities should be provided for study subjects to rest.

(4) Staff members shall prepare first-aid medications and relevant equipment at all project sites, and each on-site operation shall be conducted with personnel capable of performing primary

on-site first aid.

## **VIII. Quality Control**

### **(1) Quality Control in the Development Process of Project Proposals and Related Intervention Tools**

At different stages, by organizing experts from various fields, the overall project plan, investigation and evaluation plan, intervention implementation plan, and other work plans were demonstrated; the design and use of various investigation and evaluation questionnaires, checklists, and record forms were reviewed; and the content and forms of interventions were validated.

#### **(II) Quality Control of Data Collection**

##### **1. Standardized Tools and Methods**

standardize survey, measurement, and assessment methods and tools.

##### **2. Training**

Conduct standardized training and assessment for researchers involved in data collection, focusing on the evaluation of work plans, technologies, and tools related to information gathering. Only those who pass the assessment may commence their duties.

##### **3. On-site verification of data collection**

All investigation, measurement, and evaluation activities must be accompanied by corresponding on-site verification and quality control measures. This primarily involves on-site verification of questionnaires and measurement items, as well as repeated measurements of selected study subjects. Specific methods are detailed in the "Requirements for On-site Quality Control in Investigation and Evaluation" (Appendix 13).

##### **4. Data Entry and Cleaning**

Establish and utilize REDCap to create a unified data entry file based on survey questionnaires or forms, with preliminary logical validation configured. Randomly select over 20% of the already entered questionnaires for secondary validation to ensure data entry quality. Develop standardized data cleaning protocols and document the data cleaning process.

### **(3) Quality Control of Intervention Group Activities**



### **1. Standardize the content, methods, and tools of group activities**

Develop a unified programme for group activities, using a unified training manual and tools.

### **2. On-site evaluation of the quality of intervention group activities**

The on-site evaluation team from municipal and district-level disease control institutions conducted quality assessments of household environmental guidance.

## **(4) Loss to Follow-up Management**

### **1. Definition of lost-to-follow-up subjects:**

In this study, loss to follow-up was defined as: 1) subjects explicitly declining to continue intervention via SMS, WeChat mini-program, or telephone; 2) subjects withdrawing from the study due to adverse health outcomes, including hospitalization for somatic or psychological disorders. Subjects hospitalized due to accidental injuries were not considered as withdrawal from the study but were recorded as health outcomes.

### **2. Control for loss of study subjects**

#### **(1) Incentives**

During the project implementation period, each community health service center utilized local resources and advantages to provide certain free medical and health services (non-related to fall prevention) or a degree of material rewards, while maintaining continuous contact and communication with the study participants, encouraging them to participate in project evaluations and follow-up activities.

#### **(2) Follow-up confirmation**

The project staff conducts at least one follow-up visit per month with the study participants via telephone, home visits, or face-to-face communication to confirm their presence and encourage continued participation in the study. Follow-up information is recorded in the "Study Participant Follow-up Record Form" (Appendix 14).

#### **(3) Use project activities to understand absenteeism**

For participants who should have attended the activity but did not during the submission of the monthly fall report card or periodic efficacy evaluation, the reason for absence should be investigated on-site or by telephone on the same day, and whether they can continue to participate in the project should be assessed. Participants should be encouraged to persist in attending

subsequent project activities.

### **3. Management of Lost-to-Follow-up Subjects**

For subjects who experience loss to follow-up, the reasons for their withdrawal from the study should be meticulously documented in the 'Subject Follow-up Record Form' (Appendix 14). Where feasible, an efficacy assessment should be conducted for them.

### **4. Monthly Reporting System for Research Subject Information**

The loss of follow-up of the subjects in the two study groups was reported monthly.

### **(5) Pollution Control**

#### **1. Avoid interference from other projects**

During the intervention period, the project community should refrain from participating in other similar studies or projects that may affect the intervention outcomes. All relevant project implementation activities in the project community during the intervention period shall be documented.

#### **2. Treatment of contamination between study groups**

Comply with the project protocol, and participants in each group shall not engage in activities of other groups during the intervention period for any reason. Any such behavior must be immediately stopped and truthfully recorded.

## **IX. Organizational Management and Division of Responsibilities**

### **(1) Guangzhou Center for Disease Control and Prevention**

Oversee the project's overall operations, including developing work plans, organizing expert reviews, conducting pilot trials, and implementing interventions, evaluations, and final summaries. Lead primary-level training programs, manage quality control, and provide operational guidance. Select project sites based on the plan and define the responsibilities of collaborating units. Coordinate with all partner organizations within the jurisdiction to conduct training, implement interventions, ensure quality control, guide evaluations, and oversee operational supervision.

### **(II) Project Site District Centers for Disease Control and Prevention**

According to the project plan, responsible for implementing and coordinating intervention activities in the project community/department, conducting training, evaluation, quality control,

and daily project management.

**(3) Community Health Service Center (Town Health Center)**

Organize and implement all project tasks within the jurisdiction, and ensure compliance with all quality control requirements.

## XI. Schedule

### Schedule

job content	2025			2026					2027
	July–October	November	December	January-February	March	April-May	July-August	October to December	January to December
Analyze the results of the preliminary project to derive the intervention plan									
Refine the research protocol and register the trial number									
ethical review									
Start, Training									
Screening of study subjects, baseline survey and evaluation, grouping									
intervene									
process evaluation, quality assessment,									

monthly fall follow-up									
First efficacy evaluation									
second efficacy evaluation									
Third Effect Evaluation									
Data cleaning and analysis									
Results Release									

Note: For reference only. The actual implementation time should align closely with the schedule.

## **XII. List of Attachments**

Annex 1 Coding Rules for Project Research Subjects

Annex 2 List of project area communities/villages

Appendix 3 Screening Form for Study Subjects

Appendix 4 Risk Factors of Home Environment and Renovation Recommendations for Elderly Falls

Annex 5 Survey Assessment Tool

Annex 6 Record Form for Guidance on Environmental Assessment and Improvement of Residential Areas

Annex 7 Fall Occurrence Record Calendar

Attachment 8: Survey Form on Workload and Expenditure of Elderly Fall Intervention Projects by Municipal Project Offices

Annex 9: Survey Form on Workload and Cost Expenditure of the Elderly Fall Intervention Project by District-level Project Office

Attachment 10: Survey Form on Workload and Cost Expenditure of Fall Intervention Programs for Elderly in Primary Healthcare Institutions

Appendix 11 Survey Form on Fall-Related Expenditures During Intervention Period for Study Subjects

Annex 12 Emergency Response Plan Template for Project Activities in Adverse Weather Conditions

Annex 13 Requirements for on-site quality control during investigation and evaluation

Appendix 14 Follow-up Record Form for Study Subjects

## Appendix 1 Coding Rules for Study Subjects

### Research subject coding rules

1. This study implements the principle of unique coding for each enrolled subject. Once the subject's code is confirmed, it will be used as the unique identifier throughout the entire study.

2. The code consists of 6 digits, each with a distinct meaning: □□□□□□

(1) First and second digits: Street code (see Annex 2 for specific codes).

Third: Community/Village Code

( 2 ) Fourth: Group code

The intervention group was 1, and the control group was 2.

(3) Fifth and sixth positions: Serial numbers of study subjects within the community.

Start from 01 and number them sequentially.

**3. Upon completion of coding assignment in each project community, a coding table shall be generated and submitted for archiving. The coding shall not be altered, and each study subject shall be assigned a unique code throughout the entire project duration.**

## Annex 2 List of project area communities/villages

### List of communities/villages in the project area

Street code (2 people)	Street/Township	Sample size (people)
01	Huadu District Second People's Hospital	40
02	Xinhua Community Health Service Center	40
03	Xinya Street Qingbu Community Health Service Center	40
04	Xinhua Street New Street Community Health Service Center	40
05	Hua Dong Town Hua Qiao Health Center	40
06	Huadong Town Beixing Health Center	40
07	Huadong Town Central Health Center	40
08	Tanbu Town Central Health Center	40

Note: Forty participants were recruited from each community and randomly assigned to the intervention group or control group by the municipal project office.



## Appendix 3 Screening Form for Study Subjects

### Part 1 Screening Information (Part A)

**A1 Gender:** ① Male ② Female

**A2 Birth date:** \_\_\_\_\_ year \_\_\_\_\_ month \_\_\_\_\_ day

[Note] If the elderly cannot recall the date, the birth date on the ID card or household registration book shall prevail.

**The actual age of A3 is** \_\_\_\_\_ years.

[Note] Actual age refers to the age calculated by subtracting the survey date from the actual birth date of the survey subject. For example: if the survey subject was born on September 21,1960, and the survey date is August 18,2025, then the actual age of the survey subject is 65 years.

**★A4 Over the past two years, how many times have you fallen?**

[Note] A fall is recorded regardless of whether injury occurs after the fall.

This question serves as the most critical inclusion criterion. For instance, if an elderly individual reports having experienced falls in the past two years, on-site inquiries should be conducted to gather details regarding the occurrence of falls or medical treatment received, thereby excluding potential recall errors in the elderly population.

If no falls have occurred, record 0 times. The eligibility for intervention should be determined based on the results of question A5.

**★A5 Are you worried about falling?**

① Very worried ② A little worried ③ Never thought about it ④ Not worried

[Note] Selection of ① or ② indicates concern about falls, warranting further investigation. For those selecting ③ or ④ with a score of 0 on question A4 (non-fallers), screening is terminated as they are not eligible for intervention.

**Would A6 like to participate in a two-month (approximately once a week) health education activity on fall prevention?**

① Willing ② Unwilling

[Note] Participants who refuse to participate cannot be enrolled as intervention subjects, and screening will be terminated.

**A7 Education level:**

① Illiterate, semi-literate ② Primary school ③ Junior high school ④ High school or vocational school and above

⑤ No formal education, but possesses basic literacy skills

[Note] Survey participants selected as option 1 cannot be included in the intervention group. Verify whether screening subjects with primary school education level possess basic literacy skills. If not, select option 1 and exclude the participant. For those without primary school education but capable of self-directed reading and simple writing, select "⑤No formal schooling but with basic literacy skills" to include them in the intervention program.

**A8 Will you continue to live at your current address for the next six months?**

**①Yes ②No ③Not sure**

[Note] Individuals who may relocate from their current residence within the next 6 months or who may remain away from their current residence for an extended period are ineligible as intervention subjects, and screening will be terminated.

**Can A9 walk independently?**

**①Yes ②No**

[Note] Conduct on-site observation and interview the subjects. Independent walking includes the ability to walk using crutches independently. Subjects who are unable to walk independently, such as those in wheelchairs or requiring assistance for walking, are excluded, and the screening is terminated.

**How does an A10 investigator assess the communication skills of the subject under investigation?**

**① Inability to hear clearly ② Inability to articulate clearly ③ Inability to comprehend the investigator's intent ④Ability to communicate normally**

[Note] To ensure the smooth implementation of the course, participants' ability to communicate normally will be assessed. Those unable to communicate effectively will be disqualified from the project, and the screening process will be terminated.

**A11 Do you want to confirm whether the respondent can be included in the project as an intervention subject?**

**① Yes. According to the coding rules, the intervention subject number is code**

**② deny**

[Note] Cases meeting the following exclusion criteria should be excluded. For situations that cannot be determined temporarily, expert advice may be sought. The exclusion criteria for the study are as follows:

- ① In the acute phase of a disease or during an acute exacerbation of a chronic condition;
- ② Individuals with hearing, visual, or cognitive impairments, or those who self-reported neurological or psychiatric disorders such as epilepsy or dementia, rendering them unable to communicate, interact, or learn normally;
- ③ Self-reported patients with diseases of the heart, brain, kidney, liver, respiratory system, hematological system, etc., and those who are intolerant to exercise (as determined by physician recommendation or on-site assessment);
- ④ Patients with clearly defined balance-disrupting disorders (e.g., vestibular/cerebellar system pathologies, vertigo, Ménière's disease, etc.).

Investigator: \_\_\_\_\_ Date of Investigation: \_\_\_\_\_ year, \_\_\_\_\_ month, \_\_\_\_\_ day

**Continue with the baseline survey.**

#### Appendix 4 Risk Factors of Home Environment and Renovation Recommendations for Elderly Falls

project	frequently asked questions The more "✓" marks you draw, the more dangerous	Improvement suggestions	hazards Clear
lighting	<input type="checkbox"/> Lighting is not installed in the activity area for the elderly	Install lighting in all activity areas for older adults	
	<input type="checkbox"/> Insufficient, excessive, glaring, or flickering illumination	The illumination should have a certain intensity, with soft light that is neither glaring nor flickering. Do not use exposed bulbs for lighting.	
	<input type="checkbox"/> Difficulty turning on or off the lighting when entering the room at night or getting up at night	<input type="checkbox"/> Adjust the position of lighting switches to facilitate easy operation for elderly individuals at doorways and beds. Use remote-controlled lamps or sensor-activated	
	<input type="checkbox"/> Do not use night lighting tools such as night lights and flashlights	Use tools such as a night light or flashlight	
The ground is wet and slippery.	<input type="checkbox"/> Slippery ground due to water, oil, or other substances	Place mats or anti-slip pads in areas with frequent water or oil exposure (e.g., bathrooms, kitchens, sinks). Promptly clean up water and oil from the floor. Adjust furniture positions and replace inappropriate tools to minimize the likelihood of	
	<input type="checkbox"/> The floor or flooring material is too smooth	<input type="checkbox"/> Replace the non-slip flooring with anti-slip materials. Use carpets or mats. Apply anti-slip paint to the floor.	
	<input type="checkbox"/> The floor becomes smooth due to waxing or polishing	Avoid waxing or using polish on the floor	
carpet	<input type="checkbox"/> The edges of the raised carpet and mat	Replace the carpet or mat. Keep the carpet and mat flat.	
	<input type="checkbox"/> Loose, slippery carpet or mat	Remove the carpet or mat. Use double-sided tape to secure the carpet or mat.	
footstep threshold	<input type="checkbox"/> The threshold is too high.	Remove excessively high thresholds. Add warning signs at the thresholds to make them more visible.	
	<input type="checkbox"/> The steps are too high.	Add warning signs at the steps to make them more visible. Remove the steps. Install handrails or furniture/equipment that provides support near the steps.	
obstacle	Furniture, clutter, or temporary items in corridors and passageways	<input type="checkbox"/> Rearrange furniture positions to ensure unobstructed pathways. Remove clutter and temporary items from corridors and passageways. Reduce the quantity of	

project	frequently asked questions The more "√" marks you draw, the more dangerous	Improvement suggestions	hazards Clear
Furniture selection and placement	<input type="checkbox"/> The sofa, chair, or bed is too high or too low	Adjust the height of sofas, chairs, and beds so that your feet can fully touch the ground when sitting on them	
	<input type="checkbox"/> Toilet height is either too high or too low	<input type="checkbox"/> Adjust the toilet seat to the correct height. Use the toilet seat.	
	<input type="checkbox"/> When getting up from a sofa, chair, or bed, there are no armrests or supports available	Use sofas, chairs, or beds with armrests, or install armrests near them, or place furniture that provides support.	
Furniture selection and placement	<input type="checkbox"/> The furniture contains a large amount of glass, or fragile and sharp materials as decoration	<input type="checkbox"/> Avoid using glass furniture whenever possible. Minimize or eliminate the use of furniture or decorations containing fragile or sharp materials.	
	<input type="checkbox"/> Furniture is not stable, such as chairs with wheels, tables that are easily assembled, etc.	Use sturdy furniture and avoid chairs with wheels. Repair or replace unstable furniture in your home.	
	<input type="checkbox"/> Furniture placement hinders elderly individuals' movement indoors, such as obstructing pathways or	<input type="checkbox"/> Adjust furniture placement to avoid obstructing indoor corridors and prevent elderly residents from taking detours	
	<input type="checkbox"/> Cabinets, drawers, or shelves for storing food, condiments, and daily necessities that are too high or	Adjust storage cabinets, drawers, and shelves to appropriate heights to ensure that elderly individuals can access daily necessities without climbing or excessive	
	If you need to change shoes upon entering, there are no seats for the elderly in the shoe-changing area	Add tools such as a seat and shoe rack at the shoe-changing station	
No handrails or supports	<input type="checkbox"/> No handrails in the toilet, bathtub, or shower area	Install handrails next to toilets, bathtubs, and showers	
	<input type="checkbox"/> There are no handrails in indoor areas with stairs, steps, or ramps	Install handrails on indoor stairs, steps, and ramps	
corridor stairs	<input type="checkbox"/> The stairwell or staircase has no lighting or insufficient lighting	Increase lighting. Repair damaged lamps.	
	<input type="checkbox"/> There are miscellaneous items piled up beside the staircase	<input type="checkbox"/> Clear corridors and staircases of clutter, ensuring unobstructed access	
	The edge of the stair steps is not visible	Use bright, colorful paint or warning signs on the steps	
	<input type="checkbox"/> The stair steps are damaged	<input type="checkbox"/> Provide timely warnings and repair damaged steps	
pet	<input type="checkbox"/> Pets don't have a fixed resting spot at home	<input type="checkbox"/> Assign a fixed resting area for your pet to avoid them resting in the passage	
	<input type="checkbox"/> Pets in the home are not easy to be found	<input type="checkbox"/> Wear a bell on your pet to increase visibility	

## Annex 5 Survey Assessment Tool

### Guangzhou Community Elderly Fall Prevention Promotion Project Survey Evaluation Form

Dear elderly friend,

Falls pose a serious threat to the health of the elderly. To understand the incidence of falls among local elderly individuals and their related balance function, health status, comorbidities, medication use, and physical exercise, as well as to better prevent falls and improve the health of the elderly, we have designed this survey questionnaire. Please provide all information truthfully, and our staff will assist you in completing this survey. We appreciate your valuable time and support for this initiative.

project group  
February 2026

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**Note: Except for the questions labeled "self-reported by the elderly," all other questions were completed by the surveyors.**

**Code number** □□□□□□ (consistent with the screening questionnaire)

A1 Name: \_\_\_\_\_

#### **PART I. BASIC INFORMATION (PART A)**

A2 Ethnic Groups: ① Han Chinese ② Other ethnic groups: \_\_\_\_\_

A3 Address: \_\_\_\_\_ District, \_\_\_\_\_ Road/Streets, \_\_\_\_\_ Community, \_\_\_\_\_

Floor, \_\_\_\_\_ Unit, Room \_\_\_\_\_

A4 phone: A4a Home phone: \_\_\_\_\_ A4b Mobile phone: \_\_\_\_\_

A5 Cohabitation Status: ① Living alone ② Living with spouse only ③ Living with children

④ Others: \_\_\_\_\_

A6 Care methods: ① Self-care ② Care by relatives ③ Care by caregivers/nannies ④

Others

A7 Cane/Assistive Device Usage: ① Used ② Unused

## **Part II Health-Related Conditions in Older Adults (Part B)**

### **(Inquirer asks)**

B1. How would you describe your current level of physical weakness? ① Strong ② Strong ③ Average ④ Weak ⑤ Very weak			
B2 Do you need help with daily activities? ① Partially ② Basically ③ Not at all ④ Not at all			
B3 Have you experienced any mood changes in the past month? ① Yes (skip to B4) ② No (skip to B5)			
B4 For the past month, has your poor mood affected your daily life (e.g., sleep, work)? ①Yes ②No			
<b>Have you been diagnosed with the following conditions by a doctor at a community health service centre or higher level of medical institution?</b>			
B5 diabetes	①Yes ②No	B12 Kidney Disease	①Yes ②No
B6 Hypertension	①Yes ②No	B13 stroke	①Yes ②No
B7 osteoarthritis	①Yes ②No	B14 visual impairment	①Yes ②No
B8 COPD	①Yes ②No	B15 cancer	①Yes ②No
B9 Osteoporosis	①Yes ②No	B16 memory-related disorders	①Yes ②No
B10 Heart Disease	①Yes ②No	B17 Other diseases:	
B11 Dyslipidemia	①Yes ②No		
<b>Have you been taking the following medications continuously for the last 3 months?</b>			
B18 antidepressant	①Yes ②No	B25 hypoglycemic agent	①Yes ②No
B19 anti-anxiety drug	①Yes ②No	B26 Nonsteroidal Anti-inflammatory Drugs (NSAIDs)	①Yes ②No
B20 hypnotic drugs	①Yes ②No	B27 Analgesics	①Yes ②No

B21 Anticonvulsant	①Yes ②No	B28 Dopamine drugs	①Yes ②No
B22 Antipsychotic drugs	①Yes ②No	B29 anti-Parkinson's disease drug	①Yes ②No
B23 Antihypertensive Agents	①Yes ②No	B30 vasodilator	①Yes ②No
B24 diuretic	①Yes ②No	B31 Others:	



### **Part III Information Related to Falls in the Elderly (Part C)**

**Code number** □□□□□□ (consistent with the screening questionnaire)

C1b Over the past year, how many times have you fallen? (Select 0 times, this section does not require an answer)

**Note: Please recall the circumstances of each fall in order and fill in the table below. If more than 3 falls occur, please fill in the blank space on the right or add another table.**

Enter the code of your selected option in the table on the right		The first time	The second time	The third time
C2	When did the fall occur?	____ year ____ moon	____ year ____ moon	____ year ____ moon
C3	<p>What is the specific time period of the fall?</p> <p><b>Enter the time in 24-hour format, such as "17:30"</b></p> <p><b>When elderly individuals have difficulty recalling, encourage them to attempt as much as possible, with a recommended starting point of 6:00 AM.</b></p> <p><b>The morning can be recorded as 10:00; the noon as 12:00; the afternoon as 15:00;</b></p> <p><b>The evening can be recorded as 18:00; the night can be recorded as 23:00</b></p>	____:____	____:____	____:____
C4	<p><b>Where did the fall occur? (Single-choice question)</b></p> <p>C4-1 Family:</p> <p>① Bedroom ② Kitchen ③ Bathroom ④ Living Room ⑤ Entrance Hall ⑥ Balcony ⑦ Indoor Stairway ⑧ Courtyard ⑨ Skywell</p> <p>⑩ Other indoor areas of the home: _____</p> <p>Outside the C4-2 family:</p> <p>⑪ Staircases or corridors ⑫ Roads within the residential complex ⑬ Public areas within the residential complex (excluding roads) ⑭ Roads outside the residential area ⑮ Other areas outside the residential area (excluding roads): _____</p>			
C5	Were the following environmental factors present at the time of the fall?			

	<p><b>( multiple choice )</b></p> <p>① No environmental hazards ② Slippery ground ③ Uneven ground ④ Too dim lighting</p> <p>⑤ Steep slope of pavement or stairs ⑥ Presence of obstacles ⑦ Absence of protective measures such as crutches or handrails</p> <p>⑧ Inappropriate clothing ⑨ External force (pushed or bumped by others) ⑩ Others: ____ ⑪ Unclear</p>			
C6	<p>Activity at the time of fall:</p> <p>①Sports activities ②Leisure activities ③Work ④Household chores</p> <p>⑤ Driving or riding in a vehicle ⑥ Taking a shower ⑦ Using the toilet</p> <p>⑧ Walking ⑨ Others: ____ ⑩ Unclear</p>			
C7	<p><b>Injury site? (Select the most severely injured area)</b></p> <p>①No injury (mark ① and skip to question C12)</p> <p>② Head ③ Face ④ Neck ⑤ Upper Limbs</p> <p>⑥Lower limbs ⑦Trunk ⑧Multiple sites</p>			
C8	<p><b>What kind of injury did you suffer? (Please select the most severe injury)</b></p> <p>①Fracture ②Superficial injury/contusion/abrasion</p> <p>③Sharp instrument injury/open wound ④Dislocation/torsion/strain</p> <p>⑤Compression injury</p> <p>⑥Concussion/Cerebral contusion and laceration ⑦Visceral organ injury</p> <p>⑧Burns ⑨Other (specify): _____ ⑩Unclear</p>			
C9	<p>How to manage a fall injury?</p> <p>① Hospitalization ② Outpatient and emergency treatment (skip to</p>			

	C11) ③ Handle it yourself (skip to C11) ④ Do not handle it, just rest (skip to C11) ⑤No treatment, no rest (skip to C12)			
C10	<b>How many days are hospitalized? (No days are counted as 0 days, half a day as 0.5 days)</b>	sky	sky	sky
C11	<b>How long have you been resting after this fall injury (resting time refers to the duration of cessation of usual daily activities, including treatment time and hospitalization time)? (Days are not counted as 0; the smallest unit is half a day, counted as 0.5 days)</b>	sky	sky	sky
C12	Description of the fall process? (Describe the direct cause and process of the fall)			

ZabcC1 Investigator: \_\_\_\_\_ ZabcC2 Date of survey: Year Month Day

## **Part IV Knowledge, Attitude, and Behavior Related to Falls in the Elderly (Part D)**

### **(Older adults self-reported)**

Instructions: Please share your honest opinions. Your feedback greatly helps our work.

Answering method: Mark the option number with " o ", e.g., "1.". If you have any questions, feel free to ask our survey staff.

### **Do you think the following statement is correct?**

<b>project</b>	<b>option</b>		
D01 The risk of falls increases with age.	1. Correct	2. Incorrect	3. Uncertain
D02 Falls can cause death in the elderly.	1. Correct	2. Incorrect	3. Uncertain
D03 Home is the most common location for falls among the elderly.	1. Correct	2. Incorrect	3. Uncertain
D04 Poor vision affects balance function and increases the risk of falls.	1. Correct	2. Incorrect	3. Uncertain
D05 Certain medical conditions (e.g., hypertension, heart disease) may increase the risk of falls.	1. Correct	2. Incorrect	3. Uncertain
Sudden sitting up or standing up in D06 can increase the risk of falls.	1. Correct	2. Incorrect	3. Uncertain
Individuals who have experienced a fall in D07 are more likely to experience another fall.	1. Correct	2. Incorrect	3. Uncertain
Concomitant use of more than four medications increases the risk of falls.	1. Correct	2. Incorrect	3. Uncertain
D09: Others' crutches can be used directly.	1. Correct	2. Incorrect	3. Uncertain
Walking for 10 minutes daily can help prevent falls.	1. Correct	2. Incorrect	3. Uncertain

### Do you agree with the following views?

project	option				
D11 falls in the elderly are preventable.	1. Very agree	2. Agree	3. Don't know	4. Disagree	5. I strongly disagree.
D12 reduces the risk of falls by decreasing physical activity.	1. Very agree	2. Agree	3. Don't know	4. Disagree	5. I strongly disagree.
Using a cane is a sign of aging in D13.	1. Very agree	2. Agree	3. Don't know	4. Disagree	5. I strongly disagree.
Even if no injury is present after a D14 fall, the family or physician should be informed.	1. Very agree	2. Agree	3. Don't know	4. Disagree	5. I strongly disagree.

### Have you engaged in any of the following behaviors over the past 3 months?

project	option			
D15 actively learn knowledge and skills to prevent falls.	1. Always	2. Frequently	3. Occasionally	4. Never
In daily life, D16 will take precautions to prevent falls.	1. Always	2. Frequently	3. Occasionally	4. Never
When choosing shoes, D17 prioritizes slip resistance.	1. Always	2. Frequently	3. Occasionally	4. Never
When getting up in the morning, first lie flat for a while, then sit for a while, and finally get out of bed to move around.	1. Always	2. Frequently	3. Occasionally	4. Never

D19 Use a non-slip mat when bathing.	1. Always	2. Frequently	3. Occasionally	4. Never
Turn on the light or use a night light when using the toilet at night.	1. Always	2. Frequently	3. Occasionally	4. Never

## Part V: Elderly Fall Effect Energy Scale (Part E)

### (Older adults self-report/face-to-face interview)

Instructions: We will now ask you some questions about your concern about falling. For each activity below, consider how much you would worry about falling if you were to do it.

If you are not currently performing this activity (e.g., someone is helping you buy groceries), imagine you are now doing this activity. Pay attention to the degree of falls. Select the option that best describes your situation.

If you have any questions, you can ask the on-site staff at any time.

title	1 Ignore	2 A little attention	3 Very concerned (Very	4 Extreme concern
E01 Home Cleaning				
E02 Dressing and undressing				
E03 Cooking Rice				
E04 Showering				
E05 Buying things, shopping				
E06 Stand up from the chair or sit down				
E07 Going up/down stairs				
E08 Walks near home				
E09: Pick up objects from above or from the ground				
E10 Transfer Call				
E11 is walking on a slippery ground.				
E12 Visit relatives and friends				
E13 Walks through crowded areas				
E14 on rough roads (e.g. poorly maintained or unpaved)				
E15 up/down slope				
E16 goes to an event, such as an activity center				

Investigator:      Date      of      investigation:      Year      Month      Day  
Investigator: Date of investigation: Year Month Day

**Part VI Quality of Life Scale (Part F)**  
(Inquirer asks)

**SF-12 Quality of Life Scale**

project		option
F1	Overall, your health status is	①Very good ②Good ③Good ④Average (neither good nor bad) ⑤Poor
F2	Does your current health condition limit your ability to perform moderate-intensity activities such as moving tables, cleaning or mopping floors, playing ball games, or practicing tai chi?	①There are significant limitations ②There are some limitations ③There are no limitations
F3	Does your current health condition affect your ability to walk upstairs?	①There are significant limitations ②There are some limitations ③There are no limitations
F4	How much of the past two weeks have you actually done less work or other activities than you expected because of your health?	①It often happens. ②Most of the time. ③Sometimes ④Occasionally ⑤Never
F5	How much time in the past two weeks have you been less attentive to your work or other daily activities because of your health?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤ Never
F6	How much of the past two weeks have you actually done less work or other activities than you expected because of your mood (e.g. feeling depressed or anxious)?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤



		Never
F7	How much time over the past two weeks have you been less attentive to your work or other daily activities due to emotional factors such as feeling depressed or anxious?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤ Never
F8	How much has your physical pain affected your daily work (including going to work and doing housework) over the past two weeks?	①No impact at all ②Minimal impact ③Some impact ④ Significant impact ⑤Extremely significant impact
F9	How many hours have you felt calm in the last two weeks?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤ Never
F10	How many hours have you felt energetic in the past two weeks?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤ Never
F11	How many times in the past two weeks have you felt bad, depressed or down?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤ Never
F12	How much time have you spent on social activities (e.g. visiting relatives and friends) in the past two weeks due to your health or emotional problems?	①Often ②Most of the time ③ Sometimes ④Occasionally ⑤ Never
Total		

Investigator: Zeff1 Date of measurement: Year Month Day  
Investigator: Zeff1 Date of measurement: Year Month Day

### **Part VII "Stand-Up-Walk" Timing Test (Part G)**

### Stand-up-walk Test Record Form

number of times	Time:.. seconds	<b>Accessibility Tools</b> 1. None 2. Single crutch 3. Crutches 4. Walking aids
<b>G01</b>		G04
<b>G02</b>		G05
<b>G03</b>		G06
<b>Final test result G00</b>		

Note: The final test result is the average of three measurements. A 10-second test video of the tester must be recorded.

Zuptogo1 Tester:\_\_\_\_\_Zuptogo2 Date of survey: Year Month Day

### Annex 6 Record Form for Guidance on Environmental Assessment and Improvement of Residential Areas

Subject ID (6 people)	Home visit assessment time	Appraiser name	Feedback assessment result	Provide guidance on environmental improvement	Satisfaction of the elderly/caregivers with the guidance of this assessment	remarks
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	
			1.Yes 2.No	1. Yes 2. No	1. Satisfied 2. Neutral 3. Unsatisfied	

Note: If you provide environmental improvement services beyond the project requirements, please enter them in the Remarks field.

Signature of the Appraiser: Year Month Day

Signature of

the Appraiser: Year Month Day

Annex 7 Fall Occurrence Record Calendar

Fall Occurrence Log Calendar  
June 2025

1	2	3	4	5	6	7	filling explanation
					1	2	<p>This calendar is provided for the project team to collect information on falls among the elderly.</p> <p>●If you fall, mark the date with the word 'fall' whether you are injured or not.</p> <p>●Submit the monthly calendar to the local project team as required by local regulations.</p> <p>● Enter follow-up results into the monthly calendar database (Questionnaire Star) on a monthly basis.</p>
3	4	5	6	7	8	9	
10	11	12	13	14	15	16	
17	18	19	20	21	22	23	
24	25	26	27	28	29	30	

**Attachment 8: Survey Form on Workload and Expenditure of Elderly Fall Intervention Projects by Municipal Project Offices**

**Investigation on workload and expenditure of elderly fall intervention project in municipal project office**

Filler: \_\_\_\_\_ Date: \_\_\_\_ year \_\_ month \_\_ day

**Part 1: Drafting of programmes, manuals, etc.**

**Complete project plan workload**

number	Person (Name)	Annual salary (RMB)	professional ranks and titles	Time (days)	job content	remarks

**Complete project plan expenditure**

Expert fee					
number	Expert Name	professional ranks and titles	Cost (RMB)	job content	remarks

  

Conference fees				
project name	RMB/day	fatalism	Amount (RMB)	remarks
site use fee			Amount or square meters	
board and lodging				
unobstructed	----	----	<b>go :</b>  <b>return :</b>  <b>overall :</b>	
other				
amount to	---	---		

  

material printing postage				
project name	Yuan per copy	Number of copies	Amount (RMB)	remarks
scheme				

Trainee Manual				
Staff Handbook				
Fall Calendar				
Mail fee	----	----		
Video Shooting and Production	----	----		
other				Proportion allocated to intervention group: __%
amount to	----	----		

## Part 2: Launching Training (Level 1 Training)

### Training workload

number	Participants (Name)	Annual salary (RMB)	professional ranks and titles	Time (days)	job content	remarks
<b>Municipal Project Office</b>						
<b>District/County-level Project Office</b>						
<b>primary healthcare institutions</b>						

### training expenditure

<b>Expert fee</b>					
number	Expert (Name)	professional ranks and titles	Cost (RMB)	job content	remarks
<b>Conference fees</b>					
project name		RMB/day	fatalism	Amount (RMB)	remarks
site use fee				Amount or square	

			meters	
board and lodging				
unobstructed	----	----	<b>go :</b> <b>return :</b> <b>overall :</b>	
other				
amount to	---	---		

### Part 3: Supervision

#### Supervision workload

number	Person (Name)	Annual salary (RMB)	professional ranks and titles	Time spent on work (days)	job content	remarks
<b>Municipal Project Office</b>						
<b>District-level project offices and primary healthcare institutions</b>						

#### supervisory expenditure

project name	RMB/day	fatalism	Amount (RMB)	remarks
site use fee			Amount or square meters	
board and lodging				
unobstructed	----	----	<b>go :</b> <b>return :</b> <b>overall :</b>	
other				

---

amount to	---	---		
-----------	-----	-----	--	--

#### Part IV: Screening-Data Collection

##### Expenditure

project name	RMB/day	fatalism	Square meters (or amount)	remarks
Quality control (intervention implementation and data collection)				Proportion allocated to intervention group: __%
Venue fee 1 (intervention)				Proportion allocated to intervention group: __%
Venue fee 2 (Data collection: screening-assessment)				
Material cost 1 (questionnaire, measurement tools)	----	----		
Material cost 2 (improvement of	----	----		



family environment)				
other				Proportion allocated to intervention group: __%
amount to	----	----		
service charge	CNY/person/day	number of people	fatalism	aggregate amount
Screen				
base line				
intervene				Proportion allocated to intervention group: __%
DA				
other				
amount to	----	----	-----	

**Form instructions:**

1. Annual salary (2024): The total annual income, including basic salary, bonuses, and allowances, before tax.
2. Professional Title: Junior, Intermediate, Senior (including Associate Senior). Leave blank if no professional title is held. In case of title change, the title during project participation shall prevail.
3. Meeting expenses: Please provide accurate details for venue fees, accommodation, meals, transportation, etc. If no venue fees apply (e.g., the user unit has no fee-based meeting rooms), simply enter the meeting room area in square meters.
4. Fill in working hours truthfully, with the smallest unit being 0.5 days.

## Annex 9: Survey Form on Workload and Cost Expenditure of the Elderly Fall Intervention Project by District-level Project Office

### Investigation on workload and cost expenditure of elderly fall intervention project in district-level project office

Name of the district-level project office: \_\_\_\_\_ Filler: \_\_\_\_\_

#### Part 1: Workload

Implementation personnel	Annual salary (RMB)	professional ranks and titles	Time (days)	remarks
<b>Recruitment/Screening</b>				
<b>baseline survey</b>				
<b>Implement interventions</b>				
				Proportion allocated to intervention group: __%
				Proportion allocated to intervention group: __%
				Proportion allocated to intervention group: __%
				Proportion allocated to intervention group: __%
<b>DA</b>				

#### Part Two: Expenditure

project name	RMB/day	fatalism	Square meters (or amount)	remarks
Quality control (intervention implementation and data collection)				Proportion allocated to intervention group: __%
supervisor				Proportion allocated to intervention group: __%
Venue fee 2 (Data collection: screening-assessment)				
Material cost 1 (questionnaire, measurement tools)	----	----		
Material cost 2 (improvement of family environment)	----	----		
other				
amount to	----	----		
service charge	CNY/person/day	number of people	fatalism	aggregate amount
Screen				
base line				
intervene				Proportion allocated to intervention group: __%
DA				
other				
amount to	----	----	-----	

#### supervisory expenditure

project name	RMB/day	fatalism	Amount (RMB)	remarks
site use fee			Amount or square meters	
board and lodging				
unobstructed	----	----	go :  return :  overall :	

other				
amount to	---	---		

Form Instructions: 1. Annual Salary (2024): This includes the individual's basic salary, bonuses, and subsidies, all calculated as pre-tax income.

2. Professional Title: Junior, Intermediate, Senior (including Associate Senior). Leave blank if no professional title is held. In case of title change, the title during project participation shall prevail.

3. Meeting expenses: Please provide accurate details for venue fees, accommodation, meals, transportation, etc. If no venue fees apply (e.g., the user unit has no fee-based meeting rooms), simply enter the meeting room area in square meters.

4. Fill in working hours based on actual time, with the smallest unit being 0.5 days.

5. If supervision and quality control are the same task, only one entry is required.

6. Data collection: including field investigation and data entry.

## Attachment 10: Survey Form on Workload and Cost Expenditure of Fall Intervention Programs for Elderly in Primary Healthcare Institutions

### Investigation on workload and cost expenditure of fall intervention program for the elderly in primary health care institutions

Community name: \_\_\_\_\_ divide into groups : \_\_\_\_\_ group

Filler: \_\_\_\_\_ Date: \_\_\_\_ year \_\_\_\_ month \_\_\_\_ day

#### Part 1: Workload

Implementation personnel	Annual salary (RMB)	professional ranks and titles	Time (days)	remarks
<b>Recruitment/Screening</b>				
<b>baseline survey</b>				

<b>Implement interventions</b>				
<b>DA</b>				

**Part Two: Expenditure**

project name	RMB/day	fatalism	Square meters (or amount)	remarks
Venue fee 1 (intervention)				
Site fee 2 (data collection, screening-assessment)				
Material cost 1 (questionnaire, measurement tools)	----	----		
Material cost 2 (improvement of family environment)	----	----		
other				
amount to	----	----		

Form Instructions: 1. Annual Salary (2024): This includes the individual's basic salary, bonuses, and subsidies, all calculated as pre-tax income.

2. Professional Title: Junior, Intermediate, Senior (including Associate Senior). Leave blank if no professional title is held. In case of title change, the title during project participation shall prevail.

3. Meeting expenses: Please provide accurate details for venue fees, accommodation, meals, transportation, etc. If no venue fees apply (e.g., the user unit has no fee-based meeting rooms), simply enter the meeting room area in square meters.

4. Fill in working hours based on actual time, with the smallest unit being 0.5 days.

5. Data collection: including field investigation and data entry.

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## **Appendix 11 Survey Form on Fall-Related Expenditures During Intervention Period for Study Subjects**

Code: □□□□□□ (six digits, please verify carefully)

### **Investigation Form on Fall-Related Expenses During the Intervention Period of the Study Subjects**

**(Inquirer asks)**

1. How many times did you fall this month?

① 1 time ② 2 times ③ 3 times (Complete one form per time)

1A. This questionnaire is for the cost collection of the first fall?

2. Is it a new fall in this month? ① Yes ② No

3. What type of medical insurance do you have? (Multiple selections allowed)

① Urban Employee Basic Medical Insurance (Medical Insurance) ② Urban Resident Basic Medical Insurance ③ Urban and Rural Residents' Medical Insurance ④ New Rural Cooperative Medical Scheme (New Rural Cooperative Medical) ⑤ Three Guarantees and One ⑥ None of the above

4. How did you handle this fall? (Multiple answers allowed)

① Self-Handling: Complete the "Part 1 (A) Self-Handling Related Expense Survey"  
② Outpatient/Emergency Management: Complete the "Part II (B) Outpatient/Emergency-Related Cost Survey"  
③ Hospitalization: Complete the "Part III (C) Hospitalization-Related Expense Survey"  
④ Outpatient Rehabilitation: Complete the "Part IV (D) Outpatient Rehabilitation Cost Survey"

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⑤ Re-examination: Complete the "Part V (E) Re-examination Cost Survey"

⑥ No intervention: End of investigation

Please complete the survey form according to your actual situation.

### Part 1 (A): Self-Handling of Related Costs

A1. Did you receive care (at home) after this fall?	① husband or wife
	② Children and other relatives: _____ (relationship to the study subject), totaling ____ days, averaging _____ hours per day, with an annual salary of _____ yuan. _____ (relationship with the research subject), totaling ____ days, averaging _____ hours per day, with an annual salary of _____ yuan. (Add as needed)
	③ Nursing aide/nanny: _____ yuan
	④ Not receiving care
A2. What is the cost of purchasing the medication (including supplies such as cotton swabs and gauze)?	_____ Yuan
A3. What is the cost of purchasing nutritional and health supplements this time?	_____ Yuan
A4. Transportation for purchasing medications/health supplements?	① Taxi (Cost: _____ yuan)
	② Private car (distance from home to medical institution _____ kilometers)
	③ Ambulance (Cost: _____ yuan)
	④ Others, modes of transportation: _____, Yuan

Instructions for completion: 1. If no medication is purchased this time and household stock is used, the value of the utilized drugs/ supplies must be converted into monetary terms.

2. Expenses for nutritional supplements and medications: The following two scenarios shall be included in the expenses: (1) The study subject or their spouse purchases nutritional supplements or medications due to a fall; (2) The study subject entrusts a relative to purchase nutritional supplements or medications. Expenses for nutritional supplements brought by relatives or friends during visits due to a fall shall not be included.

3. If care (such as nursing aides or housekeepers) was provided prior to the fall, only the additional costs incurred due to the fall shall be included (for example, if the monthly cost was 3,000 yuan before the fall and increased to 3,500 yuan due to



increased workload after the fall, the additional cost of 500 yuan shall be included).

### Part B: Investigation of costs associated with outpatient/emergency services

B1. Which type of medical institution do you visit for outpatient and emergency treatment?	① General hospital (including general practice hospitals, excluding traditional Chinese medicine hospitals) ② Specialized hospitals (e.g., orthopedic hospitals) ③ traditional Chinese medical hospital ④ Community Health Service Center (Station)/Township Health Center ⑤ PDC
What is the total cost of B2. Outpatient and Emergency Services (including medical service fees, examination fees, medication fees, rehabilitation expenses, etc.)?	respect _____ yuan, of which the out-of-pocket amount _____ Yuan .
B3. Transportation for Medical Visits	① Taxi (Cost: _____ yuan)
	② Private car (distance from home to medical institution _____ kilometers)
	③ Ambulance (Cost: _____ yuan)
	④ Others, mode of transportation: _____, yuan

Explanation of the terms: 1. Medical service fee: The original drug markup, registration fee, and consultation fee. If the local reform has not been implemented, it should be directly interpreted as the registration fee.

2. For rehabilitation services provided in outpatient or emergency departments, the rehabilitation costs shall be included in the outpatient or emergency department expenses.

### Part 3 (C): Survey on Hospitalization-Related Costs

C1. Number of hospitalization days this month	_____ days (from _____ year _____ month _____ day to _____ year _____ month _____ day)
---	--

C2. Caregiver during hospitalization (multiple choice)	① husband or wife
	② Children and other relatives: ____ (relationship with the research subject), totaling ____ days, averaging ____ hours per day, with an annual salary of ____ yuan. ____ (relationship with the research subject), totaling ____ days, averaging ____ hours per day, with an annual salary of ____ yuan. (Add as needed)
	③ Nursing staff and housekeepers: ____ yuan
C3. What is the total cost of this hospitalization?	____ yuan, with ____ yuan to be paid out-of-pocket.
C4. What is your discharge diagnosis?	
C5. Mode of transportation for medical visits	① Taxi (Cost: ____ yuan)
	② Private car (distance from home to medical institution ____ kilometers)
	③ Ambulance (Cost: ____ yuan)
	④ Others, modes of transportation:____, Yuan

Instructions for completion: 1. If the study subject is hospitalized due to a fall during this month's follow-up, the next month's follow-up must continue to inquire whether the subject has been discharged and whether there are any related hospitalization costs. Starting from the month of discharge, each subsequent follow-up must also inquire whether the subject has undergone re-examination or rehabilitation therapy.

2. Rehabilitation performed during hospitalization shall be included in the total hospitalization expenses.

#### Part IV (D): Outpatient Rehabilitation

number of times	The first time	The second time
D1. Rehabilitation Date	__ month __ day, __ year	__ month __ day, __ year
D2. Rehabilitation Costs	Total, Self-paid	Total, Self-paid
D3. Rehabilitation transportation options?	① Taxi (Cost: ____ yuan)	① Taxi (Cost: ____ yuan)

	②Private car (distance from home to medical institution _____ kilometers)	②Private car (distance from home to medical institution _____ kilometers)
	③Ambulance (Cost: _____ yuan)	③Ambulance (Cost: _____ yuan)
	④ Others, mode of transportation: _____ yuan	④ Others, mode of transportation: _____ yuan
D4. Caregiver during rehabilitation (multiple-choice question)	① husband or wife	② husband or wife
	② Children and other relatives: _____ (relationship to the study subject), totaling ____ days, with an average daytime duration of _____ hours and an annual salary of _____ yuan. _____ <i>(relationship with the research subject), totaling ____ days, with an average daytime duration of _____ hours and an annual salary of _____ yuan. (Add as needed)</i>	② Children and other relatives: _____ (relationship to the study subject), totaling ____ days, with an average daytime duration of _____ hours and an annual salary of _____ yuan. _____ <i>(relationship with the research subject) Total ____ days, average daytime hours _____, annual salary level _____ yuan. (Add as needed)</i>
	③ Nursing staff and housekeepers: _____ yuan	③ Nursing aide, nanny: _____ yuan

Note: Not for in-hospital rehabilitation. Only non-emergency outpatient and inpatient rehabilitation expenses are included. For example, rehabilitation services provided by rehabilitation companies.

#### Part 5 (E): Re-examination Fees

E1.Recheck Date	____/____/____
E2. Re-examination fees (medical service fees, examination fees, medication fees, etc.)	_____ Yuan
E3. Recheck the transportation method?	① Taxi (Cost: _____ yuan)
	② Private car (distance from home to medical institution _____ kilometers)
	③Ambulance (Cost: _____ yuan)
	④ Other, Transportation: _____ Yuan

---

Investigator: \_\_\_\_\_ Date of investigation: \_\_\_\_\_  
\_\_\_\_\_

## **Annex 12 Emergency Response Plan Template for Project Activities in Adverse Weather Conditions**

### **Emergency Response Plan Template for Project Activities in Adverse Weather Conditions**

This emergency response plan is formulated to ensure the safety and health of elderly participants in the project, prevent accidents and potential health risks caused by adverse weather conditions such as rain, snow, lightning, strong winds, haze, high temperatures, and power outages, and to minimize the occurrence of emergencies under adverse weather conditions.

#### **I. Guiding Principles**

Thoroughly implement the requirements and principles for ensuring the safety of elderly participants in project activities, adhering to the principle of prioritizing safety and prevention. Proactively carry out preventive measures against adverse weather conditions to guarantee the orderly progress of project operations.

#### **II. Definition of Adverse Weather**

Severe weather conditions such as strong winds/tropical storms, heavy rain or downpours, snow/snowstorms, thunderstorms, hail, dense fog, haze, and extreme heat.

The contingency plan will be activated when the following weather conditions occur or are occurring during the project event day.

1. High winds: Winds of level 5 or above are not recommended for travel.
2. Heavy rain or rainstorm: Heavy rain or rainstorm, not suitable for travel.
3. Snow/Blizzard: Snowfall or heavy snow accumulation on main roads makes travel difficult for the elderly, and they should avoid going out.
4. Lightning and hail: Avoid going out during thunderstorms or hailstorms.
5. Haze: PM2.5 levels exceeding 200 (during moderate to severe haze conditions) indicate that travel and outdoor activities are not recommended.

6. Heavy fog: visibility less than 50 meters, travel is not recommended.
7. High temperature: The meteorological station has issued a high-temperature warning, and travel is not recommended.
8. Other weather conditions that are not suitable for elderly people to travel or participate in project activities.

### **III. Trigger Mechanism of the Contingency Plan**

The community weather monitors check the weather forecast on the official website of the local meteorological station before leaving work the day before the project activity (before 16:00) to decide whether to activate the emergency plan.

### **IV. Emergency Response**

In the event of adverse weather conditions prior to a project activity, the project team shall suspend the current activity; the project team staff shall notify the elderly participants in advance and document the incident in the records.

In the event of sudden adverse weather during the implementation of project activities, the project team shall, based on the prevailing circumstances, adhere to the principle of prioritizing safety, ensuring health, and emphasizing prevention. Measures such as suspending project activities or canceling them on-site shall be taken as appropriate, and a safe venue shall be provided for the elderly to temporarily rest.

### **V. Emergency Procedures**

#### **(I) General Procedures**

1. Prior to project activities, when advance conditions meeting the activation criteria of this emergency response plan emerge or are anticipated, the severe weather information monitor shall immediately consult the head of the severe weather emergency response task force regarding plan activation, with the task force leader issuing relevant instructions.

2. Upon activation of the emergency response plan, the severe weather information monitor shall immediately notify all members of the leadership group and community project activity organizers either in person or by telephone.

3. The personnel responsible for organizing community project activities shall notify each elderly individual via both telephone and text message. The notification content shall include: explicitly informing the elderly of the postponement of the project activities and providing possible alternative schedules. Records of the notification process and outcomes shall be maintained.

4. The head of the emergency response team for severe weather will determine the resumption time of project activities based on weather conditions.

## **(II) Precautions**

1. A dedicated individual shall be assigned to monitor severe weather information.

2. Each member of the project team is entitled to propose the activation of the severe weather contingency plan to the project leadership team leader.

3. The head of the severe weather emergency response task force shall report and file with the superior project management department upon activating the severe weather emergency plan.

4. In the event of sudden rainfall, snowfall, or other adverse weather conditions with short remaining time before the project activity commencement, project staff shall promptly implement measures such as laying anti-slip mats and setting up warning signs to eliminate hazardous factors in the project activity environment.

5. In the event of severe weather during the project activities, the on-site responsible person may terminate the activities at any time based on the situation and establish a temporary rest area for elderly participants to take a break. Simultaneously, a report shall be submitted to the head of the severe weather emergency response leadership group, who shall then report and file the incident with the superior administrative department.

## **VI. Personnel Composition and Division of Responsibilities for the Severe Weather Emergency Response Leadership Group**

1. Team Leader: XXX (Director of XXX Community Health Service Center) is fully responsible for emergency command, including timely activation and termination of emergency plans, as well as issuing activation orders.

2. Deputy Leader: XXX (Director of XXX Department at XXX Community Health Service Center) shall promptly consult the leader based on the severity of adverse

weather conditions, and report the initiation and termination of the proposal to the municipal and district Centers for Disease Control and Prevention (CDC).

### 3.Members:

The XXX (Severe Weather Information Monitor, XXX Department of XXX Community Health Service Center) must consult the team leader when halting practice due to adverse weather conditions. Upon receiving the restart order, they shall notify other leadership team members and provide clear explanations to residents.

The XXX (XXX Community Health Service Center, XXX Department) is responsible for notifying the event organizers to activate the contingency plan.

XXX (primary convener of the project activity organization) is responsible for notifying the elderly members of the group.



## **Annex 13 Requirements for on-site quality control during investigation and evaluation**

### **Investigation and assessment of on-site quality control requirements**

To enhance the quality of fieldwork in this research survey and evaluation, ensure the accuracy of assessment data, and promptly identify quality issues arising from field operations, these work requirements are hereby established. All units are requested to comply accordingly.

#### **I. Purpose of Quality Control**

The following objectives are to be achieved through quality control at the site of survey and assessment:

1. Reduce missing items and wrong entries at the source, and avoid obvious logical errors.
2. Identify and promptly correct any errors in the field investigation and assessment methods.
3. The results showed that the surveyor's subjectivity can reduce the impact on the evaluation results and increase the measurement accuracy.

#### **II. Responsibilities of Quality Control Officer**

Each assessment site shall appoint a dedicated on-site quality control officer. The officer must be proficient in the technical requirements and quality control essentials of each survey assessment, and be familiar with the on-site organizational procedures and division of responsibilities. Their primary duties include: conducting on-site inspections of all survey assessment operations to promptly identify and rectify issues; performing on-site verification of information collected during the day to verify and correct any discrepancies immediately; collecting, summarizing, and analyzing quality control issues related to survey assessments, and reporting and sharing them in a timely manner.

The superior project unit has the responsibility to carry out quality control work on

the site of investigation and evaluation.

### III. Key Components and Content of Quality Control

Survey and evaluation personnel, along with quality control staff, must conduct on-site verification of collected data before participants leave the field. The verification should include: clarity of handwriting in questionnaire and scale responses, identification of missing or omitted items, detection of outliers, and identification of logical inconsistencies. Identified issues must be accurately documented, promptly corrected, and shared with relevant staff for collective learning. Personnel or projects demonstrating substandard performance in survey evaluations should undergo additional training, targeted quality control, or reassignment to more suitable roles.

#### Appendix 14 Follow-up Record Form for Study Subjects

Study subject follow-up record form (telephone/in-home/face-to-face)

**CODE Number**

Follow-up date	fl.up form	Recent health status (self-reported)	Did you fall?	Average weekly frequency of outdoor activities over the past month	other	Follow-up Officer
----------------	------------	--------------------------------------	---------------	--	-------	-------------------

First time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		
Second time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		
Third time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		
Fourth time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		
Fifth time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		
6th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		
The 7th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times per week		

The 8th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times ner week		
The 9th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times ner week		
10th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times ner week		
The 11th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times ner week		
The 12th time: YTD	1. Phone 2. Home visit 3. Face-to-face	1. Good 2. General 3. Not good	1. Yes 2. No	Almost every day 2. 4-5 times ner week		

\* During follow-up visits, the "Monthly Fall Occurrence Record Calendar" can be collected simultaneously, and the "Elderly Fall Occurrence Survey Form" should be completed.