

# Influencing fire behaviour of the elderly



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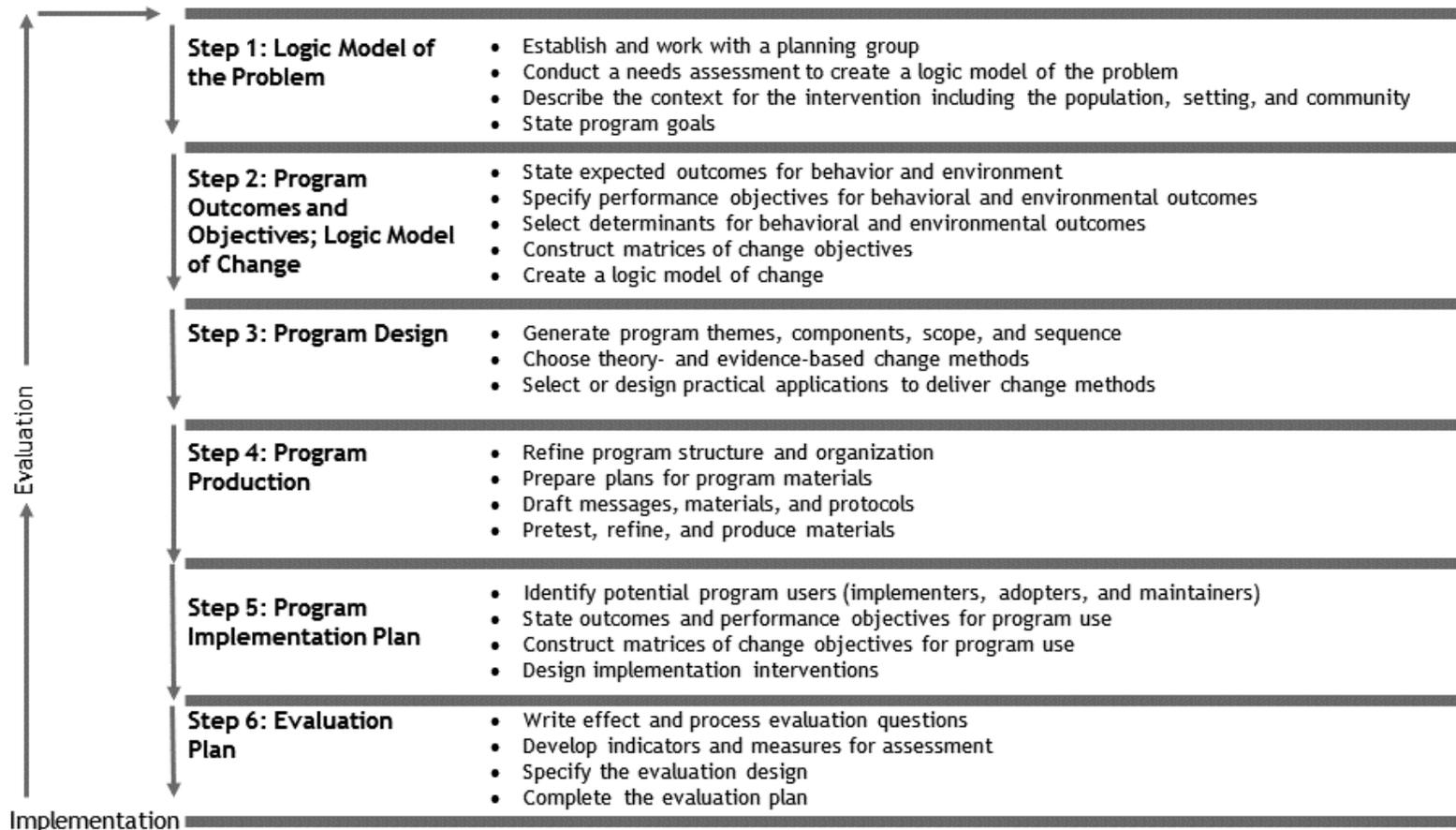
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# Introduction

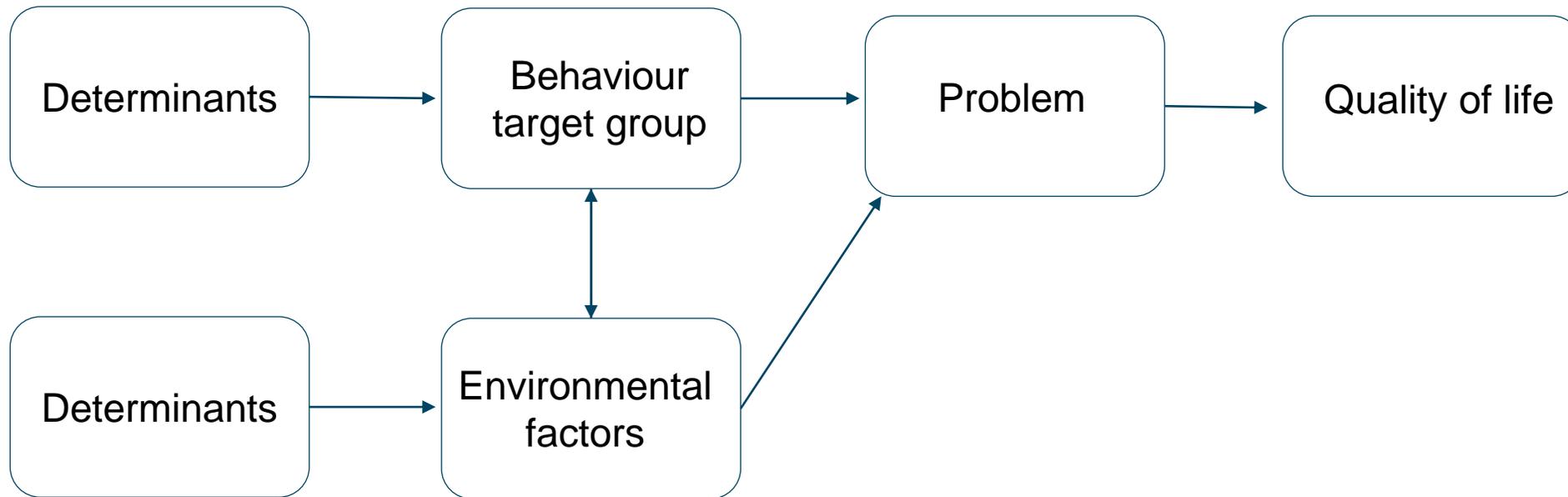
- Have difficulty in escaping from their living environment in a timely and safe way.
- 50% of deadly victims because of a residential fire of is 65 years or older (Institute for Safety (2018))
- Elderly people are six times more likely to get injured in the event of a fire
- Burns are much more difficult to treat due to their older skin
- Elderly people are much more prone to the effects of inhaling smoke
- Ageing of the population
- Living independently
  
- *Goal: develop an intervention to change behaviour of elderly to improve their fire safe behaviour*

# Intervention Mapping

(Bartholomew et al., 2016)



# Step 1. Logic model of the problem

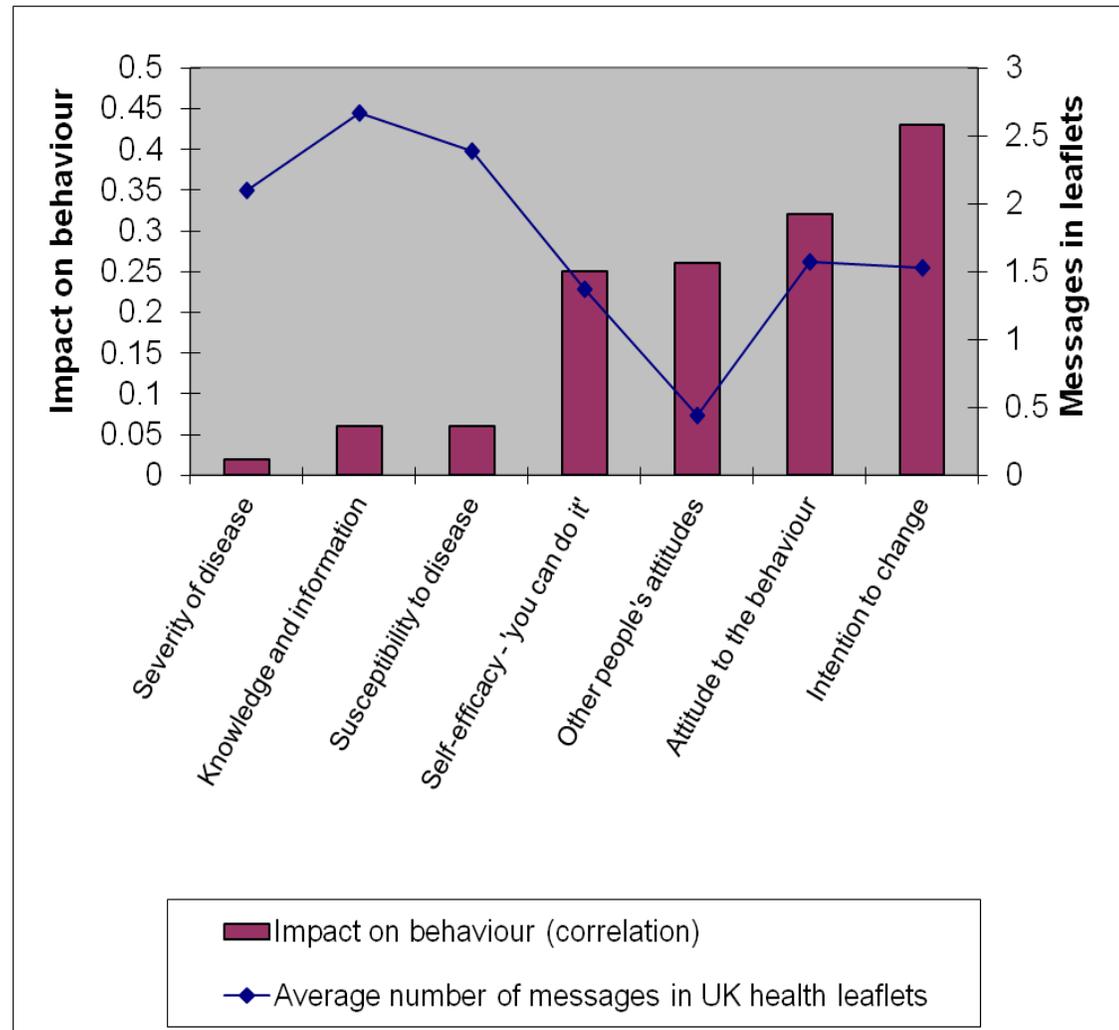


# Current situation

- Technical provisions
- Improving fire-safe behaviour
- How do you convey your message at this moment?
  - Use of arguments
  - Trying to convince the target group
  - Talk about the target group → what do we think needs to be done?

# Improving fire safe behaviour

Knowledge



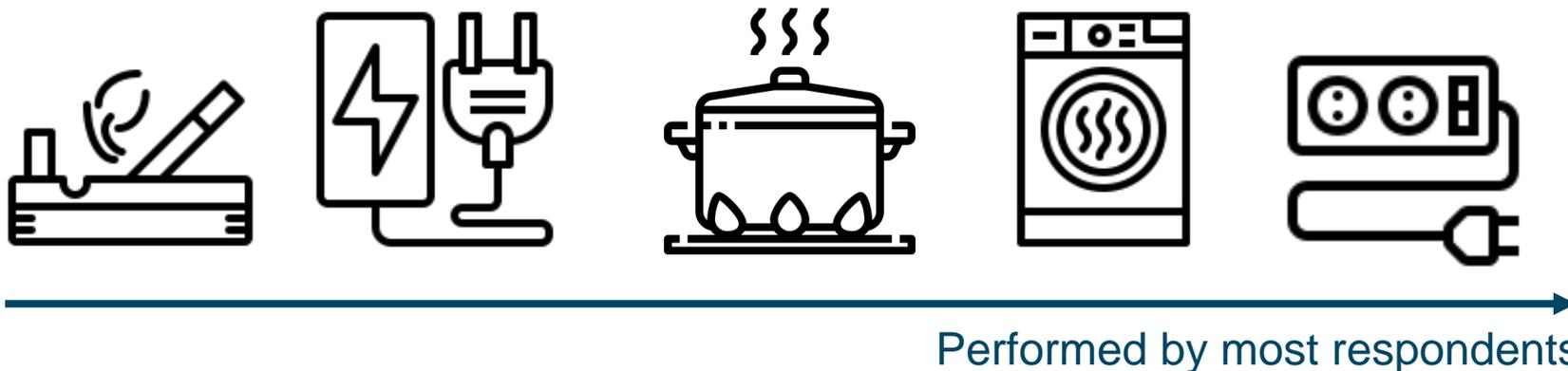
Halpern et al.  
(UK Prime Minister's  
Strategy Unit, 2004).  
*Personal Responsibility and  
Changing Behaviour: the state  
of knowledge and its  
implications for public policy.*  
HMSO, London.

# Study 1: qualitative research

- **Aim:** What do elderly people know about fire and fire safety?
- Fire safety measures, fire safety behaviour
- Interviews with 18 respondents
  
- Elderly people do not see themselves as being part of the risk group
- Knowledge about moment instead of (un)safe behaviour
- Overestimate themselves

# Study 2: quantitative research

- **Aim:** which psychological determinants influence fire safety behaviour?
- Questionnaire, 4400 respondents
- 10 determinants
- Focus on 5 types of behaviour:



# Study 2: quantitative research

- 4 determinants influence fire safety behaviour:
  - Attitude: you have to find it useful
  - Response-efficacy: it has to contribute to fire safety
  - Self-efficacy: “you can do it!”
  - Social norms: if others perform certain behaviour or find this important, you will be likely to do so.

# Study 2: quantitative research



# Step 2. Program outcomes

## Matrices: what needs to change?

Performance objectives:	Personal determinants			
Perform fire safe behaviour	Risk perception	Attitude This column also includes response efficacy	Self-efficacy	Perceived social norm
PO.1. Stay in the kitchen while cooking	<p>RP.1.a. Express that a fire can be caused by all kinds of cooking devices, not just by a gas cooker.</p> <p>RP.1.b. Express that if food cooks until dry, this can cause a fire.</p>	<p>A.1.a. Recognize that, is there is a distraction during cooking (e.g. the doorbell or telephone rings) you have to turn down the heat.</p> <p>A.1.b. Recognize that if you are not in the kitchen (or living room if there is an open kitchen) while cooking, you won't be able to recognize a fire on time.</p> <p>R.E.1.c Recognize that staying in the kitchen (or living room if there is an open kitchen) while cooking will decrease the risk of a house fire.</p>	<p>SE.1.a. Express confidence in finding ways that help you remember that you are cooking. E.g. using a timer.</p> <p>SE.1.b. Express confidence in being able to quickly identify a fire by staying in the kitchen (or living room if there is an open kitchen) while cooking.</p>	

# Step 3 Program design

- Brainstorm with all 25 safety regions (Community Fire Safety)
- Brainstorm with behavioural scientists
- What works? What needs to change? How do you target determinants?
- Implementation

# Step 3 Program design

- Work together with Community Fire Safety teams
- Be approachable
- Focus on certain themes
- Focus on determinants
- Follow-up after intervention

# Step 4 Program production

- Focus on 5 types of behaviour
- Attitude: think about their own situation  
(*self-reevaluation*)
- Self-efficacy: experience / practice  
(*guided practice, planning coping responses*)
- Social norm: discussion  
(*information about others' approval, resistance to social pressure*)
  
- Implementation/evaluation is planned for 2022

# Conclusion

- If nothing is done, the number of fire casualties among elderly people will increase in the coming years → interventions are needed
- Avoid the pitfall of talking about the target group: involve elderly people in development interventions
- Keep working on interventions, invest in research
- Sharing knowledge is not enough
- Gain insight in risk factors and determinants