



# LUND UNIVERSITY

## Pharmaceutical packaging design for elderly people: design research as a link for innovation towards better life experience

Lorenzini, Giana; Hellström, Daniel

2015

[Link to publication](#)

*Citation for published version (APA):*

Lorenzini, G., & Hellström, D. (2015). Pharmaceutical packaging design for elderly people: design research as a link for innovation towards better life experience.

*Total number of authors:*

2

### General rights

Unless other specific re-use rights are stated the following general rights apply:

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Read more about Creative commons licenses: <https://creativecommons.org/licenses/>

### Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00



# Pharmaceutical packaging design for elderly people

GIANA LORENZINI, DANIEL HELLSTRÖM  
DEPARTMENT OF DESIGN SCIENCES  
FACULTY OF ENGINEERING  
LUND UNIVERSITY, SWEDEN

Design research as a link for innovation towards better life experience

## 1 INSPIRATION

Currently, 17% of the EU population, or 85 million people, are 65 years or older.

In 2030, 23% or 125 million people in the EU will be 65 years or older.

In 2060, 30% or 155 million of the EU people will be 65 years or older [1].

“As we age, we take on many characteristics of various disabilities - our strength reach and mobility diminish, our visual acuity lessens and we become more sensitive to glare; our hearing declines” [2]

“Universal Design is also socially sustainable, supporting the basic human rights for equity, independence and diversity” [2]

Design research

User needs

Industrial requirements

Pharmaceutical packaging

References:  
1) Olsson, S. Turning Demographic Ageing in Europe into Opportunities. Health Access, Sweden, 2014.  
2) Trends in Universal Design. The Delta Centre, Norway, 2013.

## 2 RESEARCH QUESTIONS

How is the design applied to pharmaceutical packaging for elderly people?

And what is the value of using design research to assess the needs of the elderly?

## 3 RESEARCH PLATFORM ON DESIGN

### 1 PURPOSE

To explore the critical design aspects of the use of pharmaceutical packaging by the elderly.

### 2 CONCEPTUAL BACKGROUND

This research was literature-based, fundamented by the combination of concepts from:

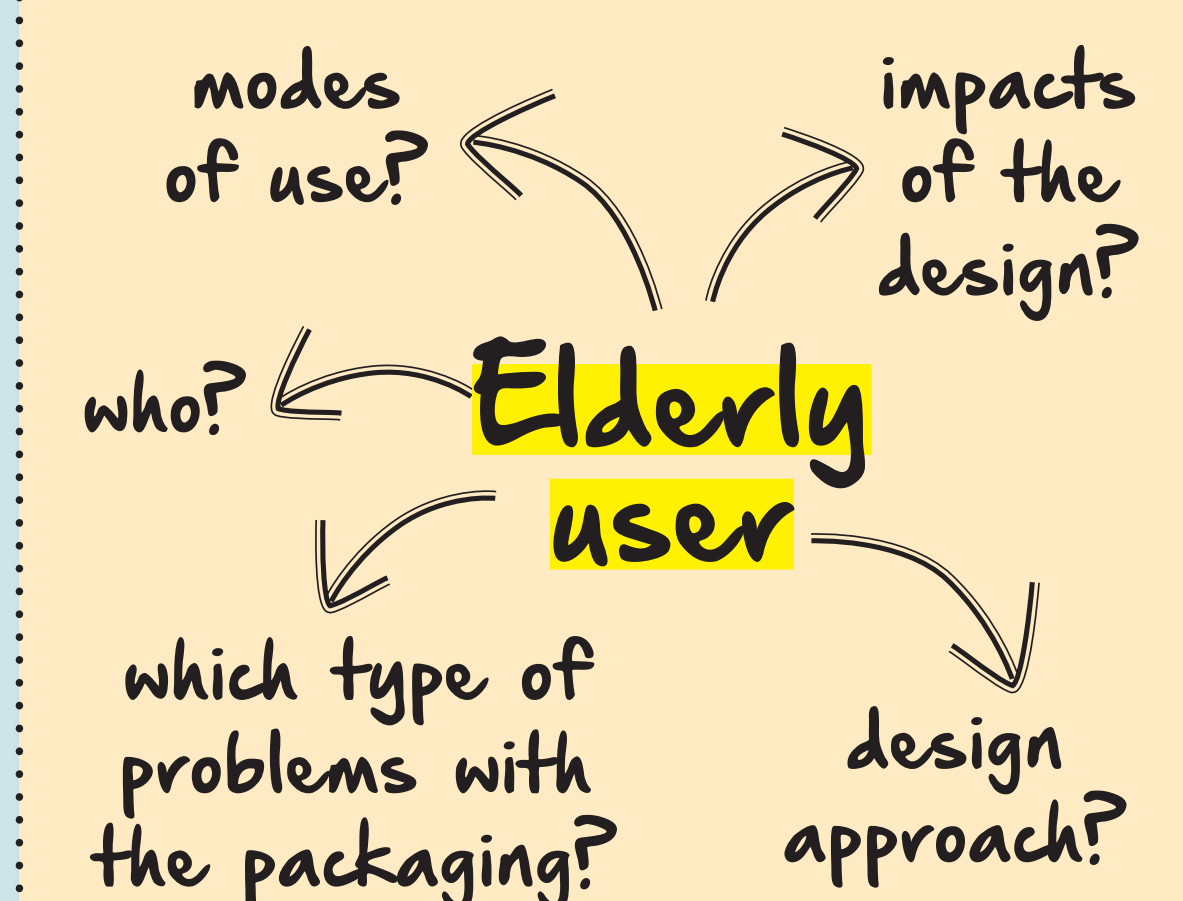
- Design thinking: to understand the lacks in the design research about pharmaceutical packaging for the elderly users
- Inclusive design: to identify the problems of the elderly when dealing with pharmaceutical packaging

### 3 RESEARCH STEPS

#### Step 1:

\* The understanding of pharmaceutical packaging design as a field of research with different disciplines

#### Step 2:



## 4 DESIGN CHALLENGES

Pharmaceutical packaging design has proved to be interdisciplinary, but with lacks of understanding among areas. More design research is needed based on:

**Insights:** How do designers get insights from the elderly? Are these insights considered by regulation and policies? How do nurses manage the packaging? New perspectives could be developed through design research.

**Observation:** The design research is focused on observing the problems faced by users, but not on proposing solutions or design standards for the packaging of medication. Why?

**Empathy:** Design research recognizes that packages for medicines should be user-friendly, however pharmaceutical research lacks of design inspiration. How can the design explore new solutions for the elderly?

The difficulties for senior users were grouped as three main challenges:

### 1 MECHANICAL USE

- Openability: the loss of strenght to open child-resistant containers
- Readability: the difficulty of following the small letters and texts on instructions

### 2 COGNITIVE USE

- Language: non-clear terms mixed with similar names
- Memory: the difficulty to remember names and doses

### 3 SAFE AND COMPLIANT USE

- Storage: inappropriate and unsafe use of packaging at home
- Compliance: loss of compliance with a treatment preceded by difficult packaging and unclear instructions

## 5 COMMENTS AND FURTHER STEPS

- New solutions based on design methods are necessary
- We aim to establish new links through design research, debating with the multiple actors and stakeholders how to improve pharmaceutical packaging
- For the challenges, it is imperative to have user-friendly packaging, accessible for the elderly people, but child-resistant



## 6 AUTHORS

INFO: [www.plog.lth.se](http://www.plog.lth.se)



GIANA LORENZINI  
PhD Candidate

CONTACT:  
[giana.lorenzini@plog.lth.se](mailto:giana.lorenzini@plog.lth.se)



DANIEL HELLSTRÖM  
PhD, Associate Professor

CONTACT:  
[daniel.hellstrom@plog.lth.se](mailto:daniel.hellstrom@plog.lth.se)