ined
INSTITUT NATIONAL D'ÉTUDES DÉMOGRAPHIQUES

The variability of factors in the explanation of the links between family configuration and the care mix

Marie Barrere, Marie-Victoire Bouquet, Guillaume Leroux, Loïc Trabut (Ined)

Introductory elements: ageing in our societies

Our societies are facing unprecedented ageing.

Gégory Ponthière in *Economie du vieillissement* (2017) reminds us:

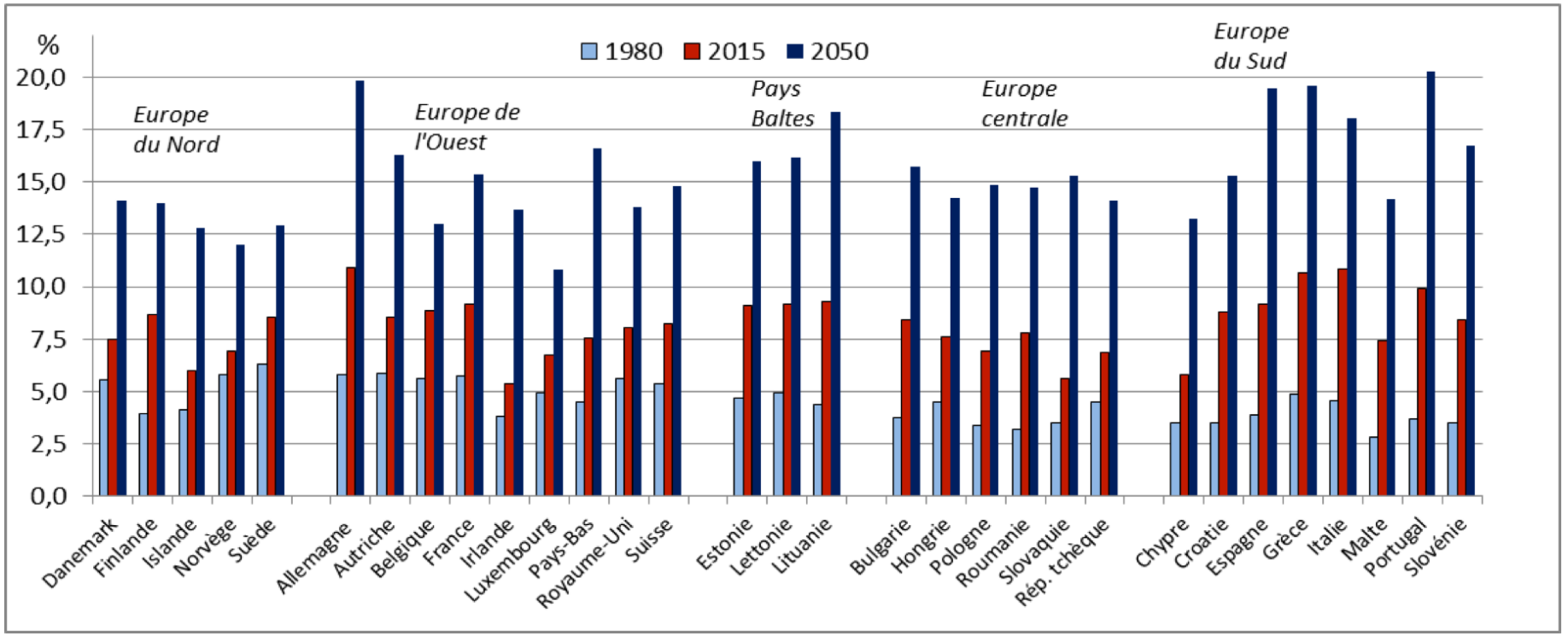
- In 1700, the population aged over 65 represented just 4% of the world's population; by 2000, this proportion had risen to 7% and, according to United Nations projections, should reach 21% of the world's population by the end of the 21st century.
- The United Nations also forecasts that the number of people aged over 65 will rise from 430 million in 2000 to almost two billion in 2100.
- Between 1950 and 2000, the French population grew by 18 million people. This increase is due to natural growth, but also, due to a more than 30% rise in the population aged 60 and over.

There are many reasons for this aging process:

- declining fertility (= number of live births per 1,000 women of childbearing age)
- lower mortality (= frequency of deaths by age group)
- longer life expectancy. In France, life expectancy is 84 years for women and 76 years for men. Life expectancy is increasing by around 1 quarter every year.

Proportion of the population aged 75 and over in European countries in 1980, 2015 and 2050

cf. Gaymu, Joëlle. "Demographic aspects of old age in Europe", *Revue* vol. 55-1, no. 1, 2017, pp. 19-40.
Source : eurostat



Introductory remarks: ageing in public policy

- Since the 1960s, there has been an ongoing administrative process of deconstructing the group of "older people" (aged 60 and over) into subsets with specific statuses and roles and roles.

✓ Cédric Humbert on the ASV law (2015): "*Old age is not homogeneous, but on the contrary plural: there is the age when we are old without being old, which refers to retirement age, but also grandparenthood, then the age of old age when frailties appear, finally old age.*"

✓ As Thomas Frinault (Politix, 2005) points out, social policies in particular draw a dividing line between two types of old age: independent old age and dependent old age.

- The first is made up of people who are still able to play a social role if they wish, or even an economic one, while the second is made up of autonomous, very elderly people who can remain at home without outside help.
- On the other hand, dependent old age can be observed when physical or mental capabilities deteriorate, and people need significant assistance and/or aids to carry out the routine acts of daily life.

➢ Policies for the elderly therefore combine social security and social assistance: **pension reforms and dependency** are two aspects of a broader issue concerning the place of old age in society.

Introductory remarks : the challenges of dependency

Cf. Blanche Le Bihan, Dependency policy in France and the United States.
Gérontologie et société, n145, 2013.

"Elderly dependency, or long-term care to use a term used in a number of European countries, is a major challenge for social protection systems. It raises multiple issues - demographic, economic, social and political - in all European countries".

- The demographic ageing process poses the crucial question of **longer life expectancy with disabilities** (home care is now the preferred option), and consequently **of family carers.**
- ✓ Some analyses (Gaymu *et al.*, 2008) show that family caregivers will not necessarily be fewer in number.
- ✓ But the question arises as to their availability. Several transformations in society are leading to a significant risk of a "*care deficit*".
  - Geographical mobility, leading to the dispersal of families across the country
  - Increasing women's participation in the workforce...

➢ These challenges of reconciliation have led the public authorities to develop support systems not only for the frail elderly, but also for their families.

Introductory remarks : the challenges of dependency

- The political response to the assistance needs of the elderly and their families their families is also an economic challenge

✓ **Financing dependency care**: in a context of severe budget restrictions, the cost of caring for elderly people losing their independence is a major challenge.

- Numerous analyses point to the inevitable increase in the share of GDP linked to dependency in the years to come - in France, it is expected to rise from 1.2 in 2010 to 1.76 in 2040.
- Different countries have different ways of providing care: Bismarkian insurance system based on work/ Beveridgian assistance system based on taxation; hybrid system in France.

✓ **Dependency as a wealth-creating sector**: the question of employment

In France, while the primary aim of creating a specific scheme to care for dependent elderly people is to meet the needs of users, it is also to develop the personal services sector, with a view to reducing unemployment.

History of old age policies in France

- **From 2000 to today -** against a backdrop of virtual economic stagnation and social debt

✓ **Implementation of a personalized autonomy allowance,** paid for by departmental councils => rather than the creation of a 5e social protection risk.

- The law of July 20, 2001 stipulates that "*any elderly person residing in France who finds herself unable to assume the consequences of the lack or loss of autonomy linked to his physical or mental state is entitled to a personalized autonomy allowance enabling care adapted to his needs*".
- The period was marked by a liberal standard, with the control of public spending and the stimulation of the personal services market (Borloo plan on personal services), and a reorganization of procedures for service providers.
- The creation of the Caisse nationale de solidarité pour l'autonomie (CNSA) on January 1, 2006, which partly finances the APA.

✓ **Strengthening pathway coordination and combating social and territorial inequalities** (e.g. Paerpa)

✓ Affirmation of rights linked to loss of autonomy, in particular the law on adaptation to ageing **increases the amount of the APA and recognizes the status of family carer.**

✓ **creation of a 5e social protection risk**

Objectives

- Understand the place of formal LTC in the care configuration around dependant senior in France

  → Showing the variability in terms of care configuration
  → Showing the impact of demographics transformation on those configurations

- Identify the factors that explain the greater or lesser importance of LTC formal for these individuals.

  → Showing difference between family structure
  → Elavuating the LTC instrument performance
  → Identifying non-recourse

Literature

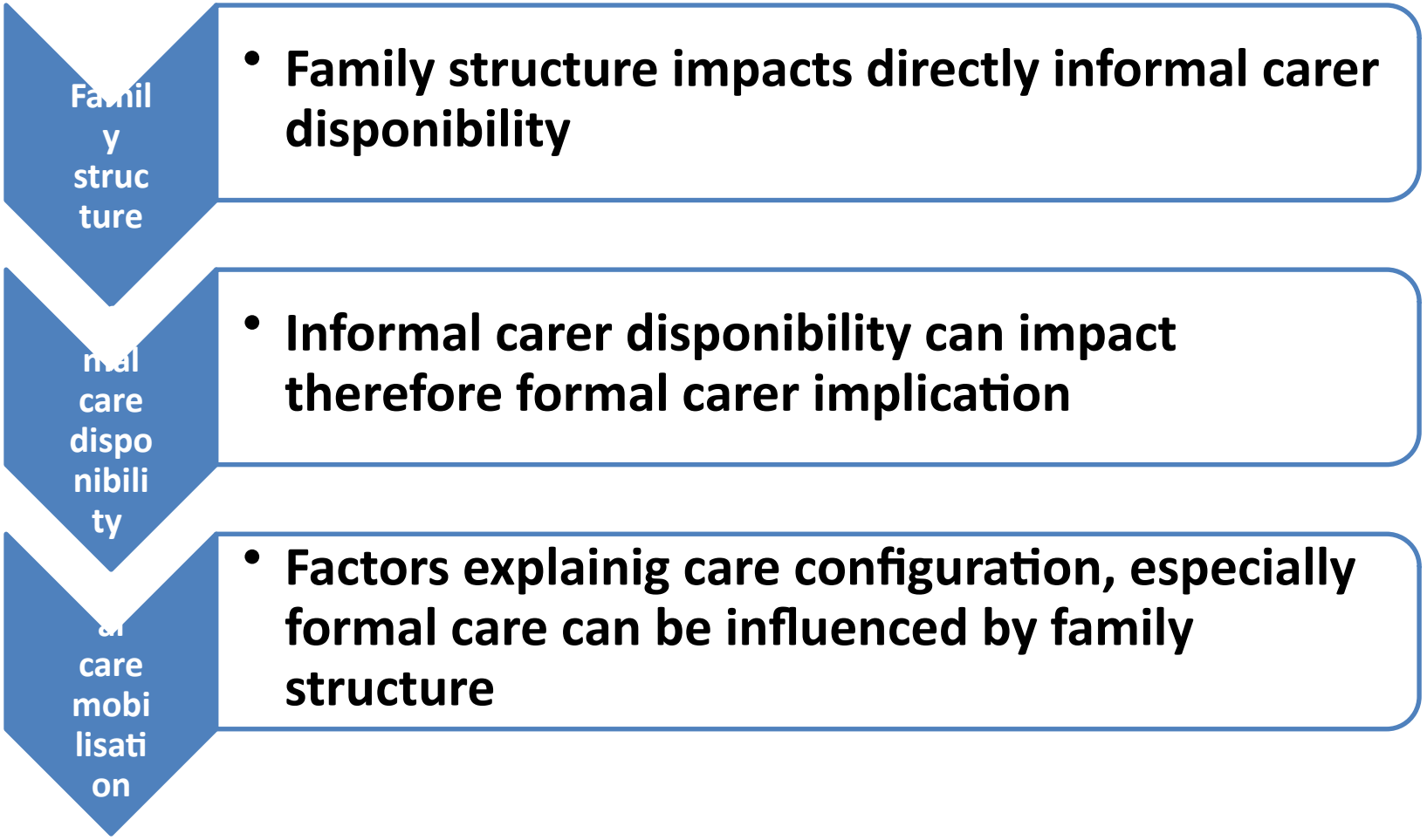
- Family informal caregiver are from far the main caregivers:
  - → In 2015, 21% of people aged 60 and over living at home claimed to receive care with essential acts of daily life
  - → Of these 3 million people, 48% said they were helped exclusively by their family and friends, 18% solely by professionals and the remaining third by a combination of both (Brunel et al., 2019)
- Individual characteristic determine care assignation :
  - → Wives and husbands are mobilized first, followed by adult children and, in their absence, other family members to meet the day-to-day needs of an individual losing their autonomy (Hoerger et al., 1996)
    - However, widowhood and the second demographic transition have challenged the "conventional" family model. In France, only 41% of our sample have a spouse and one or more children.

- → Gender differences in caregiving suggested that women caregivers were more likely than men caregivers (Navaie-Waliser et al., 2002)
- → The most frequently reported effect of caring on work arrangements among women is leaving the labor market (Henz, 2004)

- Family structure on family care assignation:
  - → Works on "differential adjustment" within sibilingship confirms the sensitivity of children's involvement to siblings' size and, more generally, to family structure (Roquebert et al., 2018)
  - → Being a caregiver depends on the rank in the sibling: younger siblings are more often declared caregivers, and more particularly as sole caregivers. (ibid.)

- Senior characteristics
  - → Health "individuals from older age groups and those in poorer health and worse functioning conditions face more negligible risks of experiencing unmet care needs." (Calderón-Jaramillo & Zueras, 2023).
  - → Economic status and access to formal care: low socioeconomic status of the elderly increases difficulties in accessing formal care (Paraponaris et al., 2012)
- Linking formal and informal LTC
  - → The reform of the Japanese LTC system that reduced formal care availability increased hours of informal LTC deteriorated multiple dimensions of caregiver health (Miyawaki et al., 2020).

Hypothesis


Family structure
• Family structure impacts directly informal carer disponibility
Informal care disponibility
• Informal carer disponibility can impact therefore formal carer implication
Formal care mobilisation
• Factors explainig care configuration, especially formal care can be influenced by family structure

Data

- Capacité Aide et Ressources des seniors (CARE) survey (2015)
- CARE is a face-to-face survey among selected people aged over 60 and living at home. (Drees)
  - → the living conditions of senior citizens,
  - → focusing in particular on their relationships with those around them,
  - → any difficulties they may have in carrying out certain daily activities,
  - → the care they receive to overcome these difficulties.
- Here we focus only on those individuals identifies as having several or many difficulties

method

Hypothesis

- Our first hypothesis is that the characteristics of family structures, i.e. the potential availability of different types of caregiver, will have implications for care configuration.
- We also assume that the factors that might intervene in the implementation of the different care configurations may vary between family structures.

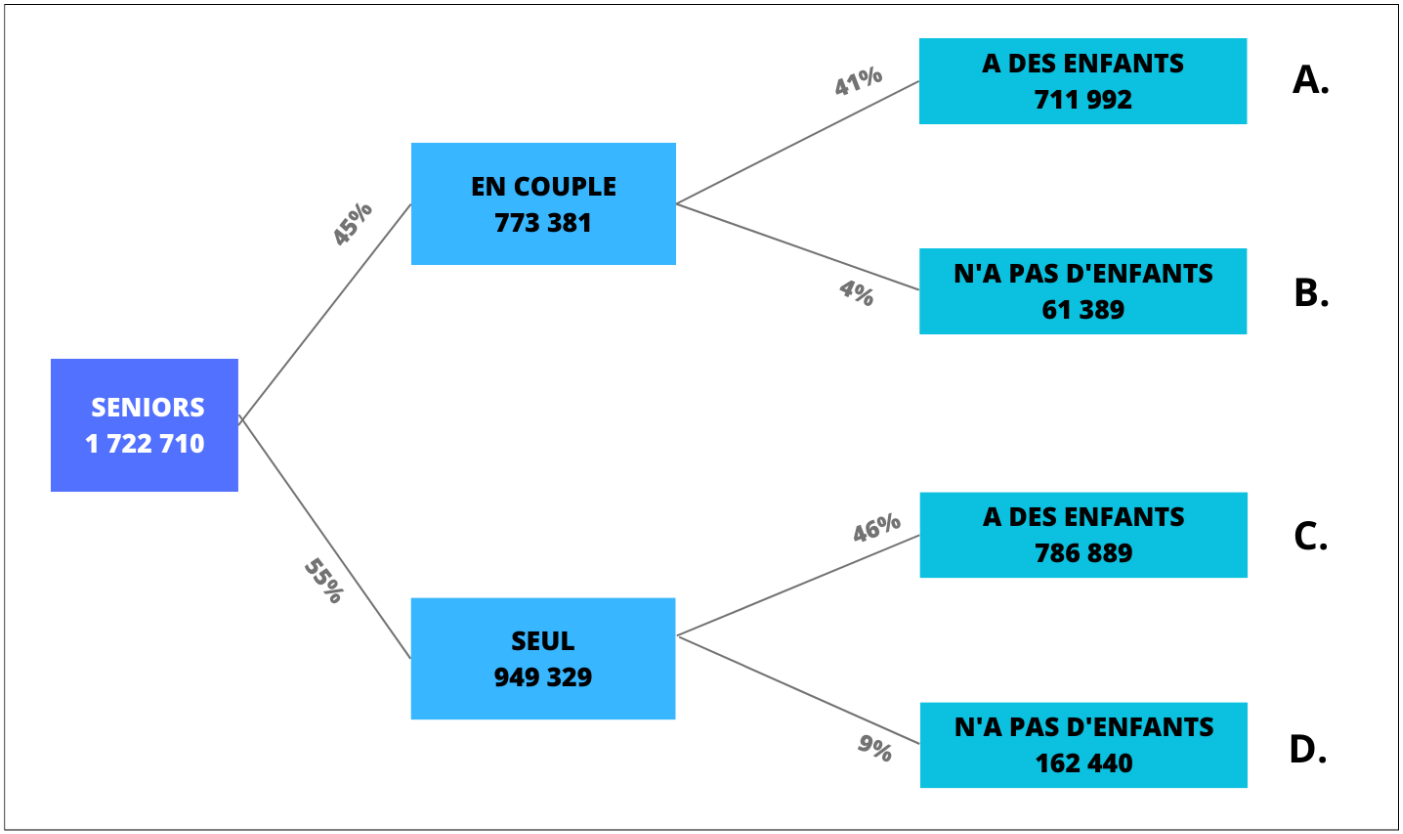
method

- First, we will define family structures and describe the care configurations associated with them.
- Then, we will seek to identify, for each family structure, the factors that explain the different care configurations that are specific to each structure.

Method : describing care configuration for each family structure

- Build coherent groups based on the existence of potential caregivers.
- 4 types of informal care
  - → spouse alone, the children alone, a combination of these two types of protagonists, or close friends or family other than the spouse and children
- 2 types of formal care that can be combined
  - → social assistance, which covers all social services (home help, meal delivery, etc.)
  - → medical assistance, which takes the form of nursing services or regular private medical staff

Family structure



Répartition des séniors appartenant aux groupes de dépendance III et IV selon leur composition familiale

Informal care provider	Formal care provider	Group A	Group B	group C	Group D
no informal care	no formal care	25,29%	24,27%	15,33%	18,79%
no informal care	social care	5,32%	3,76%	12,29%	20,79%
no informal care	medical care	0,80%	0,00%	0,80%	1,36%
no informal care	mixed professional care	0,65%	0,65%	2,81%	6,12%
spouse's care	social care	9,29%	10,01%		
spouse's care	medical care	1,63%	3,64%		
spouse's care	mixed professional care	4,48%	9,37%		
spouse's care	no formal care	22,60%	38,62%		
children care	social care	3,34%		16,34%	
children care	medical care	0,27%		2,96%	
children care	mixed professional care	2,62%		15,72%	
children care	no formal care	2,78%		11,98%	
mixed family	social care	3,80%			
mixed family	medical care	1,07%			
mixed family	mixed professional care	3,13%			
mixed family	no formal care	7,37%			
other	social care	1,41%	3,14%	7,20%	14,47%
other	medical care	0,43%	0,00%	1,85%	1,68%
other	mixed professional care	1,46%	1,82%	5,60%	14,63%
other	no formal car	2,26%	4,72%	7,13%	22,16%

Results : Care configurations shaped by family structure Group A

- The spouse most often cares in this family structure (53.4% of cases), alone (22,6%) and with children in 15.7%.

- However, professional caregivers are also present in 36.5% of cases. Mainly from the medico-social field, they often intervene (12.3%) in mixed professional configurations.

  → This family structure seems to concentrate the need for care on family care-givers "from the first circle", firstly spouses (53.4%) and then children (24.4%). Other family caregivers or friends are relatively uninvolved (5.6%), as are professionals alone (6.8%).

Results : Care configurations shaped by family structure Group C (no spouse)

- Here the intervention of one or more professionals is the norm. In fact, in 65.6% of care configurations, a professional is present, and in 24% of configurations, health and medico-social professionals collaborate.

- Children are involved in 47% of care configurations, whereas they are involved in 24.4% of group A care configurations.

- They are also the only caregiver in 12% of the groups' configurations.

  → The absence of spouses in this group is then largely offset by the "second circle" of caregivers: siblings and friends are present in 21.8% of configurations, mostly accompanied by professional caregivers, these intervene alone in 7.1% of the care configurations of this family structure.

Results : Care configurations shaped by family structure Group B (no children)

- Spouses are involved in 61.6% of care configurations.
- Professional caregivers are present in 32.4% of situations, i.e. they are less represented than when children are available. When they are declared to intervene alone (without the help from the spouse), they are even less numerous (4.4%) than in group A structures (6.8%), which are typical of families with spouses AND children.

→ It's as if the absence of children in this structure, instead of reinforcing the professional care in the configurations, actually reduces its presence, and concentrates the care even more on the spouse alone.

→ However, we can observe here also the mobilization of a "second circle" of caregivers, characterized by siblings and friendly ties (9.7%). Whereas this group was involved in only 5.6% of configurations in group A.

Care configurations shaped by family structure Gp B (no children no spouse)

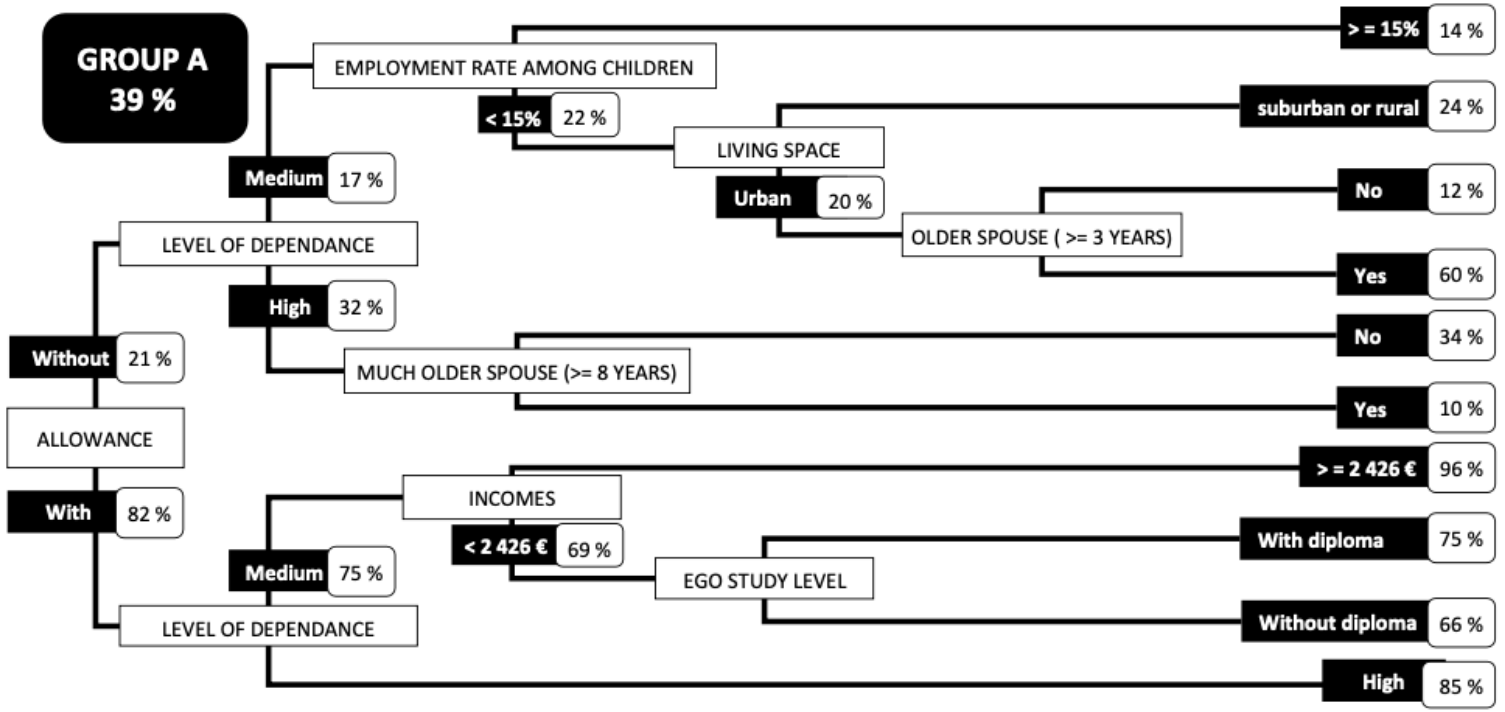
- Group D by definition offers simpler care configurations
- Nevertheless, situations where no care giver are present are relatively rare (18.8%).
- We might have expected a higher presence of professionals in the care configurations, but this is not the case. In this group, professionals play a predominant role (59%). However, they are less present than in group C (65.6%). Here only the "second circle" is available. If 53% of care configuration rely on professionals, solely 22% only, and 31% with siblings or friends of the respondent.

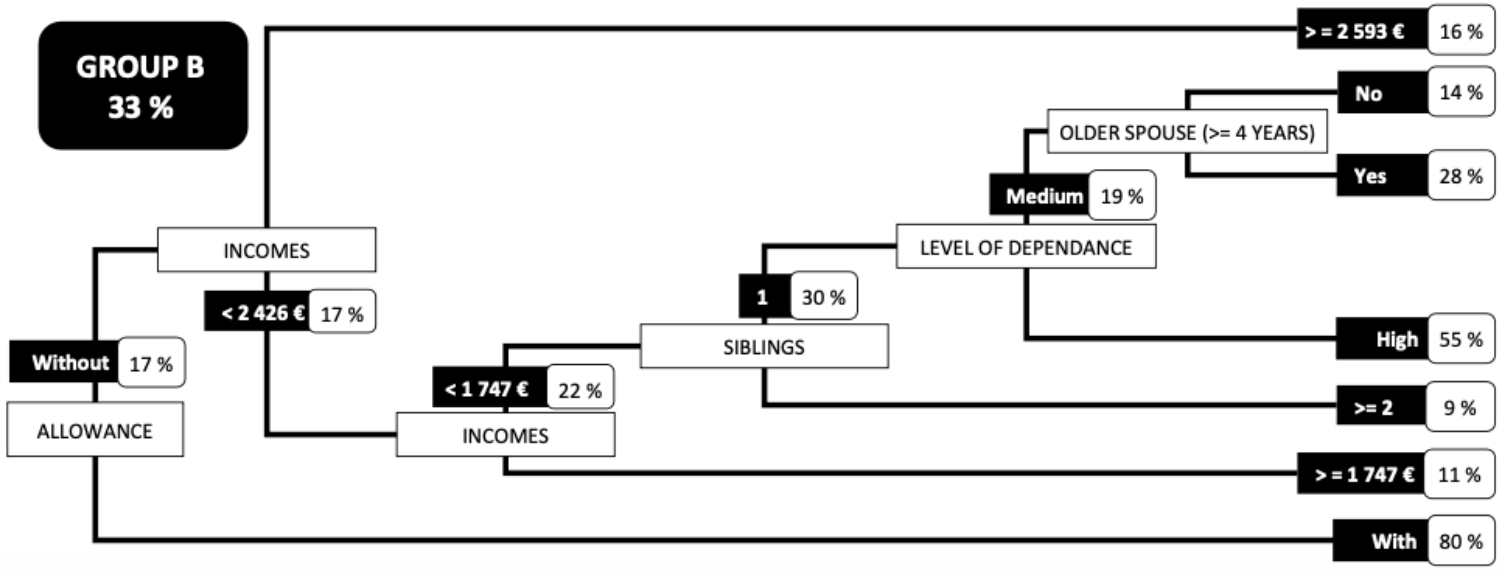
Method : Identifying the variables that explain the use of informal help

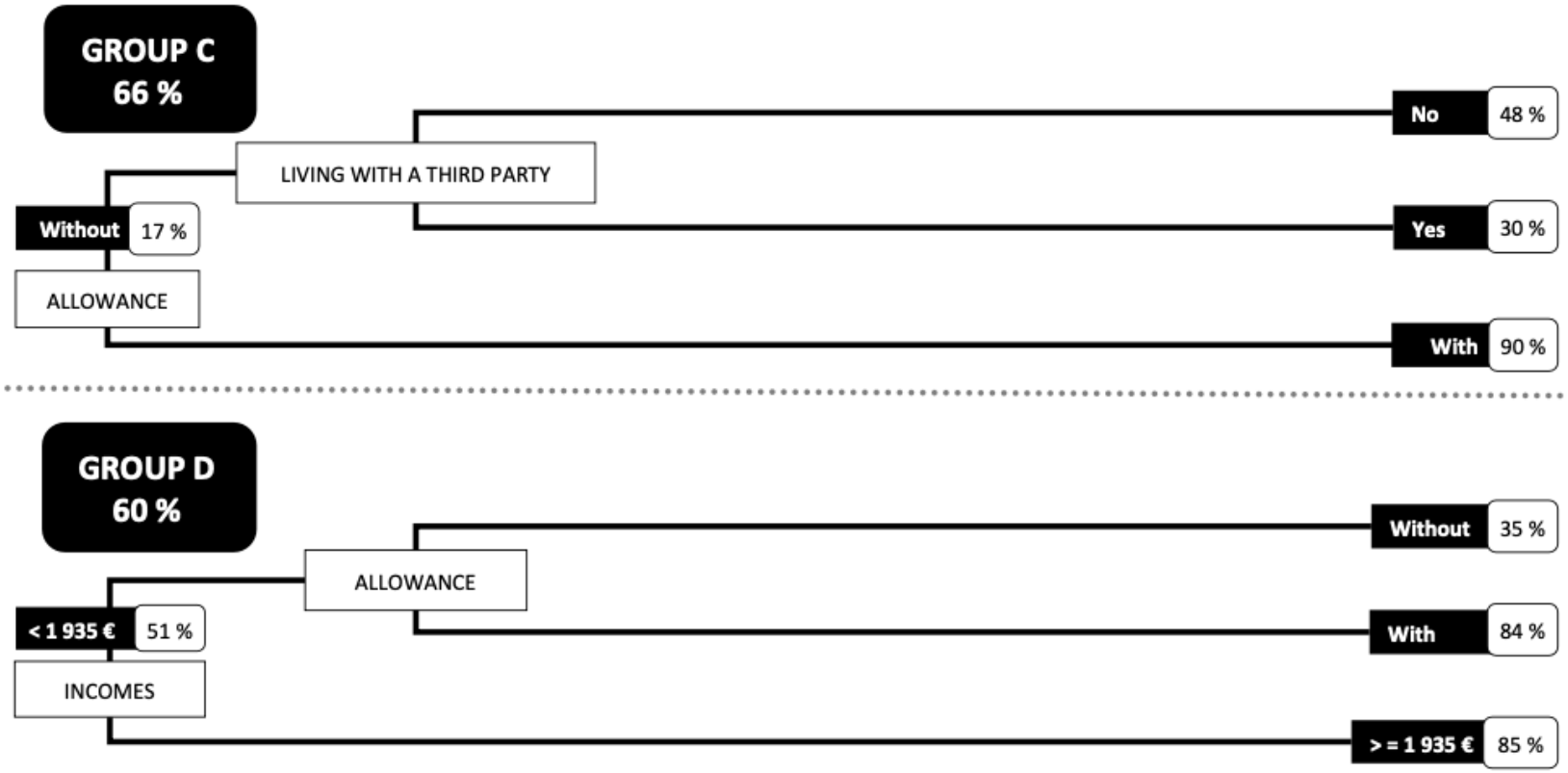
- 3 groups of variables specific to the family protagonists:
  - → the person being cared for :
    - Dependency level group (2 modalities); Having been hospitalized in the past 12 month;
    - Cohabitation mode; gender, age
    - Benefiting from the main state allowance APA
    - Income; level of education
    - Residential area: rural, urbain, sub-urbain
  - → their spouse
    - Gender
    - Age difference
  - → their children
    - Number of children
    - Rate of daughters
    - Rate of active children

Method: CART algorithm "Classification And Regression Trees"

- The decision tree generated by CART is binary (a node can only have two branches) and the segmentation criterion is the Gini diversity index.
- The algorithm tests a set of variables to divide the sample while maintaining the lowest entropy within the two newly divided sub-groups.
- Each node groups together individuals whose care configurations are as homogeneous as possible.
- The final tree obtained is a partition of the initial sample into different homogeneous sub-groups of care configuration.
- The tree is completed when the introduction of a new variable to the model increases the entropy of the sub-groups


GROUP A
39 %
EMPLOYMENT RATE AMONG CHILDREN
< 15% 22 %
LIVING SPACE
Urban 20 %
OLDER SPOUSE (>= 3 YEARS)
Yes 60 %
No 12 %
suburban or rural 24 %
>= 15% 14 %
Medium 17 %
LEVEL OF DEPENDANCE
High 32 %
MUCH OLDER SPOUSE (>= 8 YEARS)
Yes 10 %
No 34 %
Without 21 %
ALLOWANCE
With 82 %
INCOMES
< 2 426 € 69 %
EGO STUDY LEVEL
Without diploma 66 %
With diploma 75 %
Medium 75 %
LEVEL OF DEPENDANCE
High 85 %
>= 2 426 € 96 %


GROUP B
33 %
INCOMES
< 2 426 € 17 %
Without 17 %
ALLOWANCE
INCOMES
< 1 747 € 22 %
SIBLINGS
1 30 %
LEVEL OF DEPENDANCE
Medium 19 %
OLDER SPOUSE (>= 4 YEARS)
Yes 28 %
No 14 %
High 55 %
>= 2 9 %
>= 1 747 € 11 %
With 80 %
>= 2 593 € 16 %


GROUP C
66 %
LIVING WITH A THIRD PARTY
No
48 %
Yes
30 %
Without
17 %
ALLOWANCE
With
90 %
GROUP D
60 %
ALLOWANCE
Without
35 %
With
84 %
< 1 935 €
51 %
INCOMES
> = 1 935 €
85 %

Discussion

- In addition to the variability of care configurations, strongly determined by family structures, our results show that the characteristics associated with the different care configurations may be common but differ in their order of importance.
  - → the main instrument of public action, the personalized autonomy allowance, APA is a particularly discriminating factor when it comes to explaining the introduction of professional care.
  - → However, there are groups that benefit even more from professional care : those with higher incomes.
    - Firstly, in Group A, individuals receiving the APA, with a relatively lower level of dependency but higher incomes, are almost all covered by professional care (96%).
    - Secondly, in Group D, those with incomes above the median are generally covered by professional care (85%), compared to those with lower incomes, who receive professional care in only 51% of care organizations.

conclusion

- This methodology offers the opportunity to illustrate the sub-groups that are well targetted by the instrument
- But also those wich are relying mostly on family without any formal LTC
  - → group A, where individuals with a large age difference with their spouse and receiving no benefit, despite being highly dependent, are care by a professional in only 10% of situations.
  - → receiving no benefit, with an average level of dependency and active children, receive little professional care (14% of situations), whereas they represent 36% of group A

- Hypothesis on the « non recours »
  - → individuals who do not receive the APA, have the lowest incomes and belong to a sibling group with more than 2 children. They account for 15% of group B but receive professional care in only 9% of cases.