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## Influence of municipal policy and individual characteristics on the use of informal and formal domestic help in the Netherland.

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### HIGHLIGHTS

- Municipalities differ in their support policies in the Netherlands.
- No main effect of policy on the use of informal/formal help was found.
- Characteristics of physically disabled people influence their use of help.

### ABSTRACT

**Background:** The responsibility for care and social support in the Netherlands has been decentralized to the municipalities, on the assumption that they are able to organise care and social support more effectively and efficiently. Municipalities are responsible for offering citizens the social support they need. They have policy discretion to decide how and to what extent they encourage and support the use of informal help. This article explored whether the local policy focus on informal or formal help influences the actual take-up of domestic help.

**Methods:** Data on 567 physically disabled people who use informal or formal help in the household were linked to local policy data in 167 municipalities. We performed multilevel multinomial regression analyses. Since we expected that local policy will have more influence on people with slight or moderate disabilities, cohabitants and people aged under 75, cross-level interaction terms were included between characteristics of local policy and of individuals.

**Results:** The findings reveal differences between municipalities in their policy on support and differences in the use of formal or informal support between municipalities.

**Conclusions:** We found no relationship between local emphasis on informal help and the use of informal help. Possible explanations: some people have a small social network, people using informal help did not apply for municipality support or even do not know the possibility exists.

## 1. INTRODUCTION

The population of Europe is ageing, the costs of care are rising and many countries are trying to find out how to organise care and support efficiently and effectively [[1], [2], [3], [4]]. The degree of decentralisation varies largely between countries [5,6]. In the Netherlands, municipalities are increasingly responsible for offering social support, such as domestic help, to citizens who need it [7]. The central government stresses that people who need support, should be encouraged to meet their own needs. This is because (1) according to the government, the tendency of citizens to lean on public services had become too strong and (2) the steady increase in cost of care and social support had to be curbed. In anticipation of a change in the law in 2015, that was foreseen to also include a substantial budget cut (with a reduction of 32% for home care), many municipalities started to focus more strongly on informal care when dealing with citizens' demands for social support from 2010 onward [8]. The aforementioned budget cost hit all municipalities equally. Municipalities receive a budget from the central government to execute their social support duties, that is based on a division model that takes into account population characteristics (such as proportion of elderly) that have a strong relationship with use of (and spendings on) social support. A study that was carried out in a number of municipalities showed that the number of clients of publicly financed home care varied between 19 and 46 per 1000 inhabitants [9]. Apart from usage differences, there are also substantial differences in local social support policy [8]. These policy differences relate to, for example, differences in vision of policy makers on the role of formal and informal home care.

Municipalities have tools to influence the use and cost of publicly financed home care (for example by setting criteria for eligibility, fixing amounts of out-of-pocket contributions and governing tender procedures for home care providers), but we do not know whether they have an actual influence on the use of informal care.

Municipalities can facilitate the use of informal care, for example by offering informal care support. And they can encourage people in need of social support to first appeal to their social network before turning to their municipality. The outcome of court cases has demonstrated that municipalities are not allowed to enforce informal help on their citizens (by rejecting demands for publicly financed home care), unless it matters 'common care' (i.e., the usual care for each other of people who constitute a household). Housemates are, for example, supposed to take over common domestic tasks (such as preparing meals) from another housemate when the latter is no longer able to.

However, the principle is that, before providing formal support, municipalities first look at what people can do for themselves or with help from their social network. Municipalities have policy discretion to determine how and to what extent they encourage the use of informal help. Municipalities may (financially) benefit from encouraging the use of informal help. Although long term studies have shown that a decrease of formal care doesn't lead to increased informal care use [10], it is known that informal domestic help can reduce the take-up of formal help [[11], [12], [13], [14]].

Earlier research mainly provides information on individual and geographical determinants of informal and formal care use [15,16,17]. A study in Flanders examined the influence of individual and municipal characteristics on formal and informal care use by older persons [18]. The characteristics related to the

composition of the population or the care delivered (number of hours of domestic care provided). The study found that municipal characteristics have virtually no influence on use of informal care, but do affect the use of formal care. In particular, the supply of care is related to its use.

As far as we are aware, the influence of local policy has not been studied previously. Our question is accordingly: What influence does local policy have on the use of informal and formal domestic help, and does that influence vary for different subgroups in the population?

Our focus is on domestic help, because this is the most frequently used type of care in the Netherlands [19].

### **1.1. Local policy**

In this article we examine whether a local policy focus on informal domestic help influences the actual use of informal and formal help. Is there such an influence, and if so does it affect some population groups more than others? Municipalities will sometimes deploy formal help and sometimes informal help, but there are differences in the emphasis they place on each. They may focus on informal help by encouraging people who need support to seek help from someone in their social network. They may also offer support to informal helpers, such as courses, financial assistance and emotional support. We expect that residents with disabilities will receive informal help more often in municipalities where there is strong focus on this type of help. Our expectation is: the more focus on informal help, the more use of informal help and the less use of formal help.

### **1.2. Individual characteristics**

People with a severe disability, people living alone and people aged over 75 relatively often use formal help services [20] or a combination of formal and informal help [21]. People with severe disabilities are likely to need many hours of care. People living alone have no one in the household to help them, and the over-75s often have a smaller available network because people around them also have disabilities and a number of their peers have died [22]. In this study, too, we expect that people with severe disabilities, people living alone and over-75s will relatively often receive formal help or a combination of formal and informal help.

We therefore think that municipal policy will mainly influence people with slight or moderate disabilities (compared with people with severe disabilities), people living with a partner and people aged under 75; the rest – who have less choice – will more often be referred to formal help services. Our hypothesis is that: In municipalities which focus heavily on informal help, residents with slight or moderate disabilities, people living with a partner and people aged under 75 will use informal help more often than in municipalities with a neutral focus or a greater focus on offering formal help.

## **2. METHODS**

### **2.1. Data collection and operationalisation for people with physical disabilities**

This study drew on survey data from the National Panel of Chronically ill and Disabled (NPCD), constructed by the Netherlands Institute for Health Services Research (NIVEL). The panel comprises approximately 3500 independent community-dwelling persons aged 15 years or older with somatic chronic illnesses and/or physical disabilities. New panel members are selected each year from general

practices (national samples) based on a medical diagnosis of a chronic somatic illness. Panel members also comprise people with physical disabilities drawn from national population surveys. The NPCD is registered with the Dutch Data Protection Authority. All data are collected and handled in accordance with the privacy protection guidelines of this Authority. In April 2014, 3349 people took part in the NPCD, of whom 2605 completed a questionnaire on care use (response rate 77.8%). 768 respondents were ruled out because they did not have any physical disabilities (only a chronic illness), and 956 were excluded because they were not receiving domestic help. Finally, 389 respondents lived in municipalities for which we had no data on policy regarding informal care. Ultimately, we were left with a selection of 567 respondents.

## 2.2. Measures

We distinguish between use of domestic help by people from their own network (informal help), help provided via the municipality through an organisation (formal help) or a combination of the two.

The questions were: 1. Have you got domestic help (for example cooking and cleaning), in 2013, because of your health, from family members, friends, neighbours or other people from your social network? 2. Have you got formal domestic help (for example cooking and cleaning) provided via the municipality through an organisation, in 2013, because of your health?

The individual characteristics are severity of disability, sex, household composition (living alone versus living with a partner), age (ranging from 15 to 94 years), education level highest completed education in three categories: low (primary, junior secondary vocational), intermediate (junior/senior general secondary, senior secondary vocational) and high (university/university of applied sciences) and net monthly household income adjusted for household size and split into four categories: up to 1000 euros, between 1000 and 1408 euros (the average), between 1408 and 2000 euros and over 2000 euros. Severity of disability was determined by asking the NPCD members whether they were able to perform nine activities of daily living (such as washing or dressing themselves), household activities (preparing meals, heavy household work) or mobility (going up and down stairs, standing for 10 min) without difficulty, with some difficulty or not at all [23]. Adding the scores together produced a disability scale [24,25]. The availability of a social network is a key determinant for the use of informal and formal care [11]. To measure this availability we used the statement, 'When I need help, I have more than enough people to whom I can turn'. The available response categories were 'strongly disagree', 'disagree', 'agree', 'strongly agree'. A category 'unknown' was included for missing values for individual characteristics, so that we had as many cases as possible available.

## 2.3. Data collection and operationalisation of municipal characteristics

Municipal policy on social support was measured in the period 2007–2013 by means of an annual survey of all (over 400) Dutch municipalities [8]. A policy official in each municipality was asked to complete a questionnaire on the municipal policy on social support. In this article we use the survey held in 2013 on the policy in 2012. The response rate was 83%. There was no selective dropout.

The survey contains three indicators for the degree to which municipalities focus on informal help. First, municipalities were asked to indicate on a seven-point scale to what extent their policy focuses strongly on formal help (score 1) or informal help

(score 7). The second indicator of this policy focus is the number of forms of informal care support offered by the municipality. We listed eight types of support and asked municipalities to tick those they offered. The options were information, advice/support/supervision, emotional support, information and training, practical help, respite care, financial assistance and material help.

Thirdly, we used a question on spending cuts. Virtually all municipalities have made cuts in their social support policy in recent years, but they are free to choose how they do this. We presented municipalities with a number of options. If they have saved money by investigating more carefully whether informal help could offer a solution, we interpret this as an extra emphasis on informal help. The questions on municipal policy were developed by the Netherlands Institute for Social Research (SCP) for their evaluation of the decentralisation of care and social support.

In addition to these policy characteristics, we also included degree of urbanisation. Other research has shown that this plays a role in the use of informal and formal care [15,21]. The relationships between degree of urbanisation and use of informal and formal care are not uniform. Portrait et al. [21] found that residence in urban areas does not significantly affect the use of care services. Geerlings et al. [15] found 'rural (little urbanised) localities' as one of the significantly predictive factors for the transition from 'no care' to informal home-care. For the transition from informal home-care to formal home-care they found 'high urbanised' as one of the significant predictive factors.

#### **2.4. Linking policy data to client data**

For this study we linked data on people with physical disabilities to data on the local policy of 167 of the total of 408 Dutch municipalities. The policy variation between the linked municipalities does not differ significantly from that of municipalities we were unable to link (because we did not have data of people with physical disabilities). We checked this by carrying out a chi-squared test. We deliberately chose client data from two years later than the municipal data to allow time for policy to take effect.

People with disabilities who use informal and formal help are virtually comparable in municipalities for which we do and do not have policy data, though people in municipalities for which we have no policy data do use significantly but slightly less formal help (11%) than in municipalities where we do have policy data (14%).

#### **2.5. Analyses**

The dependent variable is use of domestic help. We distinguish between use of this help by people with their own network (informal help), help provided via the municipality through an organisation (formal help) or a combination of the two. The independent variables are individual characteristics of respondents and municipal characteristics.

The descriptive analyses in this article are based on contingency tables. The hypotheses were tested using a multilevel multinomial regression analysis (in Stata 13.1) to take the possible effect of clustering of people within municipalities into account. The results of people within a given municipality are not independent because they are exposed to the same municipal regime (e.g. the same local officials and the same regulations). A significance level of  $p < 0.05$  was set for all analyses. In the first step, we looked at the degree of clustering of the dependent variables within municipalities. Step 2 was the model containing all independent variables at

individual level. Step 3 was adding the independent variables at municipal level. Step 4 included cross-level interaction terms because we expected municipal characteristics to have a greater influence on people with slight or moderate disabilities, people living with a partner and people younger than 75 than on their counterparts.

Conform Declerq et al. [18] the focus of our article was on people with physical disabilities who use informal or formal help. However, another option is to also include people with disabilities who do not use any type of help at all [16]. To check the stability of the results, an extra multilevel multinomial analyse was performed, including the people with disabilities without informal and formal help in the dependent variable.

### 3. RESULTS

#### 3.1. Differences in municipal policy

The average score on the indicator for the degree of policy focus on informal or formal help (the seven-point scale) is 4.5. 15% of Dutch municipalities tend to focus mainly on formal help (scores 1–3), 37% are neutral (score 4) and 48% tend towards informal help (scores 5–7). Municipalities offer an average of 5.3 types of informal care support. Half of municipalities offer six types, but some offer only one type and others eight.

52% of municipalities confirmed that they have saved money by examining more closely whether informal help could offer a solution.

#### 3.2. The use of informal and formal help

People with a slight or moderate disability were more likely to use informal help than people with a severe disability (Table 1). The latter make more use of formal help. People living with partner, relatively young people, highly educated people, people with a net monthly household income of more than average (1408 euros) and people who feel that they have enough people to whom they can turn for help, were more likely to use informal help than their counterparts (who more often use formal help). No significant differences were found between male and female.

#### [TABLE 1]

What happens to the relationships if we perform multivariate testing? Table 2 shows the results of the multilevel multinomial analysis without interaction terms. The stepwise analysis was not more informative; therefore we showed the total analysis. The use of only formal help and of both types of help is compared in each case with the use of only informal help (the reference category, not in table). People aged 15–75 years use formal help less often than older age groups, while people aged over 75 use formal help most often. People with a severe disability were more likely to use formal help than people with a slight physical disability.

#### [TABLE 2]

By contrast, people living with a partner, people with an above-average income and people who say they have sufficient people to whom they can turn use formal help less often.

Both forms of help are used relatively often by women, the over-75s, people with severe physical disabilities and people living in relatively or completely non-urban

areas. People living with a partner use both types of help less often than people living alone.

No significant relationship is found between local policy (degree of policy focus on informal help, number of types of informal care support and savings made through the deployment of informal help) and the use of domestic help.

It can be seen from Table 2 that both variances at municipal level are equal to 0. This means that there is no clustering of respondents within municipalities, including on unmeasured characteristics. In an empty model (without independent variables) the variance on the higher level is small (0.07), but significant ( $p < 0.05$ ).

To test the hypothesis that, in municipalities with a strong policy focus on informal help, people with a slight or moderate disability, people living with a partner and people younger than 75 years will make less use of formal help, we repeated the analysis after adding interaction terms. We ran nine analyses, in which the three policy variables interacted with the three individual characteristics (severity of physical disability, age and household composition). We found (Fig. 1) a weak interaction effect ( $p$ -value 0.072) between the number of types of informal care support and severity of disability: the more forms of informal care support offered, the lower the probability that people with slight or moderate disability will use only formal help.

[FIGURE 1]

### 3.3. Sensitivity analysis

We performed an extra multilevel multinomial analysis, including the people with disabilities without informal and formal help. The results of this analysis using the same reference category (only informal help) also showed no relationship between the three variables for local policy and the use of help (all  $p$ -values were at least 0.29)

## 4. DISCUSSION

In this paper we examined whether differences in policy focus of municipalities on informal and formal help are related to differences in the actual use of informal and formal help by people with physical disabilities. We had expected that in municipalities with a strong focus on informal help, residents with disabilities were more likely to use informal help. The findings reveal differences between municipalities in their policy on support. However, we found no main relationship between municipal policy and use of informal or formal domestic help.

Our expectations concerning the use of the policy discretion afforded to municipalities (especially for people with slight or moderate disabilities, people living with a partner and people aged under 75) were only partially confirmed by our analyses. We found one interaction effect: the more forms of informal care support offered, the smaller the chance that people with slight or moderate disabilities would use formal help. This finding matches our hypothesis. However, the effect is not strong.

We did find a relationship between use of care and severity of disability, age, household composition, income and availability of formal help. This relationship confirms the findings of earlier research [11,13,14,15,19].

There may be several reasons for the fact that we found no further relationships between local policy and use of formal or informal domestic help. Municipalities are constrained in the implementation of their policies by the actual availability and willingness of people in the social network to provide care. If people have a small social network which is not willing or able to provide informal help, even a strong municipal focus on informal help will not make a difference. It is also possible that people using informal help did not apply for support from the municipality, probably they or their helpers even do not know the possibility exists [26]; self-selection, in other words. We know from the literature that one third of the informal helpers are not aware of the possibility to get support from the municipality [27] or have problems to find their way to information which is often fragmented [28]. It is also the question whether people who give only 'simple' informal domestic care, are in need of these forms of support. Perhaps the types of support provided by municipalities, are only needed when people also give more intensive care or multiple types of care (especially those types that require special skills, like personal nursing care). Due to data limitations, we were not able to take this into account, but we know that people who give domestic help, often also give other types of help [27]. Another explanation is that some municipalities have adopted a stronger pro informal care policy, just because they realized that they provided a large amount of formal care. This explanation can only be tested by analyzing data with a time dimension. It is also questionable whether municipalities have as much discretion as we assumed in making decisions and/or encouraging informal help. Municipalities have made cuts in recent years in the provision of domestic help by – in some cases – no longer reimbursing this help at all (and thus forcing people to pay for it themselves or meet their needs with informal help). This has led to a number of court cases, from which it emerged that municipalities cannot simply stop providing help, but must always look at the individual circumstances of the people requesting support.

In the period when data for his study were collected, the Association of Netherlands Municipalities developed model policy rules, and many municipalities adopted these [8]. Since 2015 no new model policy rules have been published, because the Social Support Act 2015 focuses strongly on custom-made solutions to social support demands. As a consequence, differences between municipalities may have increased, and new research on the situation from 2015 onward could reveal an impact of local social support policy on the use on informal care.

A limitation of this study is our distinction between informal and formal help, in which private help (a cleaning worker, paid by the client) was not taken into account. No data were available for this, but it is likely that such information would provide a more nuanced picture. We have already seen in our results that people with an above-average income less often use formal help. This may be due to the income-dependent co-payments that have to be made for formal help; people with a relatively high income could use the money to pay for private help to meet some or all of their needs.

The measure of forms of informal care support by municipalities is perhaps not specific enough. A meta-review of evidence on support for informal carers shows that there is no 'one size fits all' solution. For example, carers of people with dementia have other support needs than carers of people with cancer [29]. The number of forms of informal care support offered by municipalities may also not be a

correct measurement of the local focus on informal help. It is possible that municipalities offer few forms of this support but at the same time are generous in granting the support they do offer. People may for example be more readily considered eligible for respite care in order to ease the burden on informal carers. A final limitation is that we have measured the municipal policy focus by asking a key civil servant, responsible for this policy area. There may be a difference between this official policy and day-to-day practice. Future studies could interview or observe the municipal consultants who conduct the interviews with applicants for support, to shed more light on the judgements made by municipalities when allocating help. Consultants may also be more outreaching to (over-burdened) informal carers with support needs [30]. In sum, consultants may do things differently in practice from what policymakers assume [31].

The strength of our study is the combination of two unique, independent datasets. The first dataset contained relevant policy data of the municipalities. The second dataset contained data on informal and formal care use by people with physical disabilities. We were able to link these datasets and to analyse the relationship between municipal policies and the actual use of formal and/or informal care.

## 5. CONCLUSIONS

In the Netherlands, responsibility for a number of aspects of social support policy, such as domestic help, was transferred to municipalities in 2007, on the assumption that they are able to organise care and social support more effectively and efficiently than the central government. Municipalities have policy discretion to decide how and to what extent they encourage the use of informal help. To reduce the costs, municipalities started to focus more strongly on informal care. Our study showed differences in municipal policy in their focus on informal care, but we found no main relationship between this policy and the use of informal and formal care. We mentioned possible causes for not finding such relationship, but without further research we cannot confirm the hypothesis that municipalities influence the use of informal domestic help with the policy we measured.

## REFERENCES

- [1] Pearson P, Hunt H, Cooper C, Shepperd S. Providing effective and preferred care closer to home: a realist review of intermediate care. *Health and Social Care in the Community* 2015;23(6):577–93.
- [2] Triantafyllou J, Naiditch M, Repkova K. Informal care in the long-term care system. European Overview Paper. Athens/Vienna: Interlinks; 2010.
- [3] Genet N, Boerma W, Kroneman M, Hutchinson A, Saltman RB. Home Care across Europe. Current structure and future challenges. WHO/Nivel; 2012.
- [4] Verbeek-Oudijk D, Woittiez I, Eggink E, Putman L. Who cares in Europe? A comparison of long-term care for the over-50s in sixteen European countries. The Hague: The Netherlands Institute for Social Research; 2014.
- [5] Allen K, Bednárík R, Campbell L, et al. Governance and finance of long-term care across Europe. Overview report. Birmingham/Vienna: Interlinks; 2011.
- [6] Allain-Dupré D. Decentralisation trends in OECD countries: a comparative perspective for Ukraine. Presentation Regional Development Policy Division: OECD; 2017.
- [7] Maarse JAMH, Jeurissen PPP. The policy and politics of the 2015 long-term care reform in the Netherlands. *Health Policy* 2016;120(3):241–5.

- [8] Kromhout M, Feijten F, Vonk F, et al. De Wmo in beweging. Evaluatie Wetmaatschappelijke ondersteuning 2010–2012. Den Haag: Sociaal en Cultureel Planbureau; 2014.
- [9] Wapstra B, Salomé L, Koppelman N. De Wmo-uitgaven van gemeenten in 2010. Den Haag: Sociaal en Cultureel Planbureau; 2014.
- [10] Pickard L. Substitution between formal and informal care: a 'natural experiment' in social policy in Britain between 1985 and 2000. *Ageing and Society* 2012;32:1147–75.
- [11] Gannon B, Davin B. Use of formal and informal care services among elderpeople in Ireland and France. *The European Journal of Health Economics* 2010;11:499–511.
- [12] Bonsang E. Does informal care from children to their elderly parents substitute for formal care in Europe? *Journal of Health Economics* 2009;28:143–54.
- [13] van Houtven C, Norton E. Informal care and health care use of older adults. *Journal of Health Economics* 2004;23:1159–80.
- [14] Bremer P, Challis D, Hallberg IR, et al. Informal and formal care: substitutes or complements in care for people with dementia? Empirical evidence for 8 European countries. *Health Policy* 2017;6:613–22.
- [15] Geerlings S, Pot A, Deeg D. Predicting transitions in the use of informal and professional care by older adults. *Ageing & Society* 2005;25(1):111–30.
- [16] Suanet B, Broese van Groenou MI, Tilburg, van Tilburg TG. Informal and formal home care use among older adults in Europe: can country-differences be explained by societal context and composition? *Ageing and Society* 2012;32:491–515.
- [17] Broese van Groenou MI, Jacobs MT, Zwart-Older NE, Deeg DJH. Mixed care networks of community-dwelling older adults with physical health impairments in the Netherlands. *Health and Social Care in the Community* 2016;24(1):95–104.
- [18] Declercq A, Demaerschalk M, Vanden Boer L. De invloed van individuele en gemeentelijke kenmerken op het formele en informele zorggebruik van Vlaamse ouderen. In: Vanderleyden L, Callens M, Noppe J, editors. *De sociale staat van Vlaanderen 2009*. Brussels: Studiedienst van de Vlaamse Regering; 2009. p. 381–400.
- [19] Putman L, Verbeek-Oudijk D, Klerk, van Klerk M. *Zorg en ondersteuning in Nederland: kerncijfers 2016*. Den Haag: Sociaal en Cultureel Planbureau; 2017.
- [20] Catriona MM, Brendan JW, Normand C. Formal home-care utilisation by older adults in Ireland: evidence from the Irish Longitudinal Study on Ageing (TILDA). *Health and Social Care in the Community* 2015;23(4):408–18.
- [21] Portrait F, Lindeboom M, Deeg D. The use of long-term care services by the Dutch elderly. *Health Economics* 2000;9(6):513–31.
- [22] Dykstra P, van Tilburg T, de Jong-Gierveld J. Changes in older adult loneliness. Results from a seven-year longitudinal study. *Research on Aging* 2005;27(6):725–47.
- [23] Katz S, Downs TD, Cash HR, Grotz RC. Progress in development of the index of ADL. *Gerontology* 1970;10:20–30.
- [24] Broese van Groenou MI, de Boer A, Iedema J. Positive and negative evaluation of caregiving among three types of informal care relationships. *European Journal of Ageing* 2013;10:301–11.
- [25] Oudijk D, Woittiez I, de Boer A. More family responsibility, more informal care? The effects of motivation on the giving of informal care by people aged 50 or over in the Netherlands compared to other European countries. *Health Policy* 2011;101(3):228–35.
- [26] Marangos A, Cardol M, Klerk M de. Niet-gebruik van maatschappelijke ondersteuning. *Tijdschrift voor Gezondheidswetenschappen* 2013;91(6):324–31.
- [27] Klerk M, de Boer A, de Plaisier I, Schyns P. *Voor elkaar? Stand van de informele hulp in 2016*. Den Haag: Sociaal en Cultureel Planbureau; 2017.
- [28] Leeuwen S, van Snoei J, Seijger-Ackerstaff H, de Jong L. *Langer zelfstandig thuiswonen met ernstige beperkingen; Rekenkamer Onderzoek in het kader van de Wet maatschappelijke ondersteuning 2015*. Utrecht: Rekenkamer Utrecht; 2017.
- [29] Thomas S, Dalton J, Harden M, et al. Updated meta-review of evidence on support for carers. *Health Services Delivery Research* 2017;5(12).
- [30] Berg, van den E, et al. Informele ondersteuning. In: Ham L, van der Draak M, den Mensink W, editors. *De Wmo 2015 in praktijk. De lokale uitvoering van de Wet maatschappelijke ondersteuning*. Den Haag: Sociaal en Cultureel Planbureau; 2018. p. 88–109.

[31] Lipsky M. *Street-level bureaucracy: Dilemmas of the individual in public services*. New York: Russel Sage Foundation; 1980

## TABLES

Table 1. Respondent characteristics, by use of informal and formal help in 2014 (in%, n = 567)<sup>a</sup>.

	N	Only informal help%	Only formal help%	Informal and formal help%
<b>Total</b>	<b>567</b>	<b>59</b>	<b>26</b>	<b>15</b>
<i>Severity of physical disability</i>				
<b>Slight</b>	151	76*	15	10
<b>Moderate</b>	274	60*	24	16
<b>Severe</b>	142	40	43*	17
<i>Sex</i>				
<b>Male</b>	162	59	30	11
<b>Female</b>	405	59	25	16
<i>Household type</i>				
<b>Living alone</b>	187	28	55*	17
<b>Living with partner</b>	375	75*	12	13
<b>Unknown</b>	5	40	40	20
<i>Age</i>				
<b>≤74 years</b>	400	70*	18	12
<b>≥75 years</b>	167	32	47*	20
<i>Education</i>				
<b>Low</b>	189	52	33*	15
<b>Intermediate</b>	229	62	24	14
<b>High</b>	133	66*	17	17
<b>Unknown</b>	16	44	50	6
<i>Net monthly household income</i>				
<b>Below 1000 euros</b>	133	56	32*	12
<b>Between 1000 and 1408 euros (average)</b>	156	51	33*	15
<b>Between 1408 and 2000 euros</b>	120	73*	17	11
<b>Above 2000 euros</b>	82	70*	10	21
<b>Unknown</b>	76	49	34	17
<i>Social network available for help</i>				
<b>(Strongly) disagree</b>	162	48	35*	18
<b>(Strongly) agree</b>	385	65*	22	14
<b>Unknown</b>	20	45	45	10

<sup>a</sup> a chi-square test.

\*  $p < 0.05$ .

Source: NPCD 2014, own elaborations.

Table 2. Use of formal help and a combination of informal and formal help, compared with use of informal help, by individual characteristics and characteristics of municipality (multilevel multinomial regression analysis; unstandardized coefficients, and standard errors in parentheses) (N municipalities = 167, n respondents = 567)<sup>a</sup>.

	Only formal help	Informal and formal help
<b>Individual determinants</b>	<i>B-coefficient (s.e.)</i>	<i>B-coefficient (s.e.)</i>
<b>Sex (ref = man)</b>	-0.20 (.28)	.76* (.32)
<b>Age (ref = 15–75 years)</b>		
<b>75 years and older</b>	1.17*** (.28)	1.13*** (.30)
<b>Severity of physical disability (ref = slight)</b>		
<b>moderate</b>	.23 (.34)	.65 (.35)
<b>severe</b>	1.35*** (.37)	1.15** (.40)
<b>Household composition (ref = living alone)</b>		
<b>living with partner</b>	-2.62*** (.28)	-1.10*** (.30)
<b>Net monthly household income (ref = &lt; 1000 euros)</b>		
<b>1000–1408 euros</b>	-0.07 (.34)	.34 (.39)
<b>1408–2000 euros</b>	-0.91 (.40)	-0.42 (.45)
<b>&gt;2000 euros</b>	-1.86*** (.53)	.20 (.45)
<b>Education (ref = low)</b>		
<b>intermediate</b>	-0.37 (.30)	-0.15 (.33)
<b>High</b>	-0.36 (.39)	.32 (.39)
<b>Availability of informal help (ref = no help available)</b>		
<b>help available</b>	-0.67* (.28)	-0.52 (.29)
<b>Municipal determinants</b>		
<b>Policy: focused on informal help</b>	.10 (.12)	.05 (.12)
<b>Policy: number of forms of informal care support offered</b>	-0.12 (.08)	.04 (.08)
<b>Policy: savings through deployment of informal help</b>	.07 (.27)	.20 (.28)
<b>Degree of urbanisation</b>	-0.16 (.11)	.25* (.11)
<b>Variance at municipality level<sup>b</sup></b>	0	0

<sup>a</sup>Significance levels: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$ .

Source: NPCD 2014 & WMOP '13, own elaborations.

Fig. 1. Predicted probabilities of the interaction between severity of disability and informal care support policy (with 95% reliability intervals) on using only formal help.

