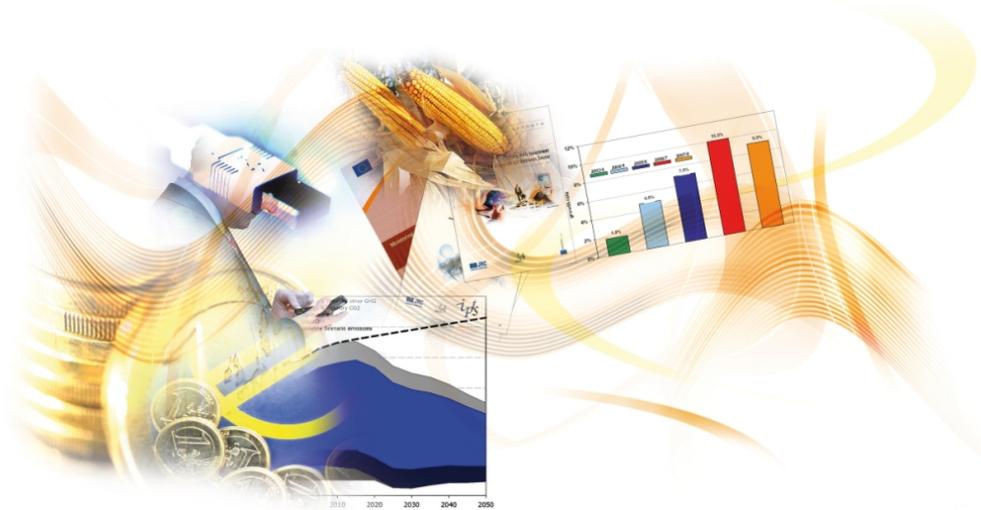


# The Potential of ICT in supporting Immigrants in Domiciliary Care in Italy

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## PREFACE

Launched in 2005 following the revised Lisbon Agenda, the policy framework ‘i2010: A European Information Society for Growth and Employment’ clearly established digital inclusion as an EU strategic policy goal. Everybody living in Europe, especially disadvantaged people, should have the opportunity to use information and communication technologies (ICT) if they so wish and/or to benefit from ICT use by service providers, intermediaries and other agents addressing their needs. Building on this, the 2006 Riga Declaration on eInclusion<sup>1</sup> defined eInclusion as “both inclusive ICT and the use of ICT to achieve wider inclusion objectives” and identified, as one of its six priorities, the promotion of cultural diversity in Europe by “improving the possibilities for economic and social participation and integration, creativity and entrepreneurship of immigrants and minorities by stimulating their participation in the information society.”

In the light of these goals, and given the dearth of empirical evidence on this topic, DG Information Society and Media, Unit H3 (eInclusion) asked the Institute for Prospective Technological Studies (IPTS)<sup>2</sup> to investigate from different angles the adoption and use of ICT by immigrants and ethnic minorities (henceforth IEM) in Europe and the related policy implications. In response to this request, in 2008 IPTS carried out the study “The potential of ICT for the promotion of cultural diversity in the EU: the case of economic and social participation and integration of immigrants and ethnic minorities”, the results of which are available at the URL: <http://is.jrc.ec.europa.eu/pages/EAP/eInclusion.html>

As part of the investigation of ICT’s contribution to the labour market and economic participation of IEM in Europe, IPTS decided to look at long-term care at home, specifically of elderly and dependent people. In many countries, this activity employs a significant number of people from migration backgrounds, and different types of ICT-based devices and services have been diffused to support it. In early 2008, IPTS launched a pilot study on immigrants, personal care jobs and ICT performed in Italy, followed a year later by three parallel studies conducted in Germany, Spain and the UK. The study on Italy explored almost exclusively the role of migrants working as personal/family care assistants in mediating ICT use in a domiciliary context. The following studies were looked more broadly at the long-term care sector and policies in each country, the current diffusion of ICT in that context and, specifically, the actual and potential support they provide to carers and other informal care givers, including those from migration backgrounds.

This document is the final report of the pilot study on Italy. The other reports are listed below:

- Yeandle, S., & Fry, G. (2010). *The Potential of ICT in Supporting Domiciliary Care in England*. JRC Scientific and Technical Report EUR 24150 EN
- Mollenkopf, H., Kloé, U., Olbermann, E., & Klumpp, G. (2010). *The Potential of ICT in Supporting Domiciliary Care in Germany*. JRC Scientific and Technical Report EUR 24274 EN
- Fernández-Utrilla, M., Reig Redondo, J., Martínez Valverde, S., Carrión Robles, T., Armayones Ruiz, M., & McCarthy, D. (2010 ). *The Potential of ICT in Supporting Domiciliary Care in Spain*. JRC Technical Note, forthcoming.

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<sup>1</sup> Available at [http://ec.europa.eu/information\\_society/events/ict\\_riga\\_2006/doc/declaration\\_riga.pdf](http://ec.europa.eu/information_society/events/ict_riga_2006/doc/declaration_riga.pdf)

<sup>2</sup> IPTS is one of the seven research institutes of the European Commission’s Joint Research Centre

- Kluzer, S., Redecker, C., & Centeno, C. (2010). *Long-term care challenges in an ageing society: the role of ICT and migrants. Results from a study on England, Germany, Italy and Spain*. JRC Scientific and Technical Report, EUR 24382 EN.

All the reports available at the URL: <http://is.jrc.ec.europa.eu/pages/EAP/eInclusion.html>.

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## EXECUTIVE SUMMARY

With almost 12 million people aged 65 and over, Italy has currently the largest share of elderly people (20%) in the total population in the European Union. The increase in the number of elderly people with care needs is paralleled by a decrease in the number of available family carers, in the context of a public social welfare system whose support and reach of people in need is limited compared to other European countries.

In these conditions, Italian dependent people and their families have increasingly resorted to the direct employment of immigrant care workers. Estimates given in this report speak of a total of more than 740,000 immigrants employed as care assistants by Italian families in 2006-07, representing over 90% of all workers employed in home care. They are almost exclusively women, from Eastern Europe, South America and the Far East. Two thirds of them were working at the time in the black market (undeclared to social security and often without even a contract) and over 40% were undocumented and were thus living in Italy illegally. While such extreme reliance on immigrant labour in home care provision is distinctive of the Italian situation, most European countries, albeit to different degrees and in different ways, employ immigrants in this sector.<sup>3</sup>

This report illustrates the results of exploratory research performed in 2008, which addressed the following questions:

1. What is the current and potential role of immigrant care workers in facilitating the access of their care recipients to ICT, and in mediating the everyday use of ICT in the context of home care provision?
2. What is the current and potential role of immigrant care workers in mediating and enhancing, via ICT, communication and information exchanges between the home care setting and the external network of welfare institutions, health and social care providers and other relevant actors?
3. What is the current and potential contribution of ICT in facilitating immigrants' training and professional development?
4. What policy implications can be drawn from the answers to the previous questions?

The assumption underlying all the above questions is that ICT can be, and are, applied in various ways to increase the opportunities for older people to live independently; to enhance home care delivery to dependent people; and to support and improve the lives of care givers themselves (in this case, mostly represented by immigrant care workers). Opportunities brought by ICT are increasingly acknowledged and exploited in many countries. They represent a likely complementary ingredient to migrant labour (and other solutions) that could address the challenges of long-term care in Europe today. This research also went on to verify whether this was the case in Italy.

Given the lack of information and past research on these topics in Italy (and in most countries), three fieldwork lines were developed in order to address the above questions. First, an assessment was made through interviews with key informants of the actual deployment of new technologies within welfare services to elderly people in Italy. Second, interviews with 24 care workers explored their experiences, capabilities and attitudes to using new

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<sup>3</sup> (Kluzer, Redecker, & Centeno, 2010) provide an overview of this phenomenon across the four countries investigated by the IPTS study.

technologies on the job and in their private lives. Third, a focus group with stakeholders discussed the potential contribution of ICT in home care and the prospective role of immigrant care workers in mediating this contribution and benefiting from new technologies. All fieldwork was carried out between January and March 2008.

The assessment of ICT diffusion in older people's households revealed that computer and Internet use in Italy is still more selective than it is in most other EU countries (only 4.8% of people aged 65-74 and just 0.9% of those over 75 used the Internet in 2006). It is also a gender related phenomenon (use was 4-5 times less frequent among women than men), dependent on high levels of education and/or of social and professional background (and, of course, on the presence of younger family members accustomed to using ICT). Concerning the diffusion of assistive technologies in home care, the Italian situation was characterised by a patchy and diverse combination of single, local pilot initiatives outside any nation-wide strategy (only personal alarms were better known and used by older people). Even in the regions of Northern and Central Italy with comparatively high standards of care provision, the diffusion and impact of new technologies in home care were found sketchy, fragmented and basically poor when investigated more closely by the study.

Unsurprisingly given this context, none of the migrants interviewed reported ever using care-related technologies, apart from electric lifts. In fact, they also expressed a limited actual need for ICT use in their work and for many of them the interview resulted in a sort of 'disclosure' experience which drew their attention to issues *potentially* of interest for them and their employers, but completely marginal in their current everyday practice. Almost 30% of the immigrant care workers, however, used the Internet use to communicate with their home countries and to search for information. Education level and length of permanence in Italy seem positively correlated with this use.

Given the above findings, the exploration and discussion of the main research questions inevitably developed at a hypothetical and prospective level. The answers are summarized below.

Concerning the potential contribution of migrant care workers to ICT use in home care, the research looked first at the challenge represented by the complexity of, and resistance to, the adoption of assistive technologies in older people's everyday routines and identified a mediation role for care workers at two levels. One is building trust, by facilitating an older person's acceptance of new technology. The other is contributing to technology use, by applying the technology themselves and/or explaining and supporting its use and/or monitoring utilization, depending on the older person's ability and will to manage these tasks. No matter how user-friendly an assistive technology may be, its introduction appears to need a mediation function for the care recipient to accept it, understand its mechanisms, and even use it. A trustworthy care worker, with adequate training and incentives, should be able to provide this.

Care workers could also play a mediation role by facilitating communication and interaction between the domiciliary care setting and relevant informal and institutional actors within the local health and social services. Care workers could support care recipients' real-time connections with care agencies and could complement ICT-based monitoring with their own observations. The latter, though inevitably subjective, stem from the everyday attendance of the assisted person and may result in a valuable source of insight for doctors and care professionals. Additionally, thanks to appropriate interfaces, interconnected with service

providers via the Internet, when specific social or health needs arise, care workers could be enabled to enter quickly and directly in contact with the relevant social and health institutions and the right professionals within them.

Concerning ICT's contribution to qualifying immigrant care workers, the starting point is that, in Italy, training courses for immigrant care workers are still few. ICT are almost totally overlooked by immigrant care workers as a source of content and as a delivery tool. However, the Aspasia project is one of a growing number of local training initiatives addressing immigrant care workers. It is being carried out in Emilia-Romagna, and uses basic multi-media facilities for training on the fundamentals in personal homecare. In general, significant potential has been identified with respect to: audiovisual self-training solutions showing correct caring behaviours and good practices; ICT-based training to improve language skills; and training on the use of telemedicine applications.

With respect to immigrants' broader quality of life, ICT were found to be important, especially in maintaining relevant ties with the motherland. Only a few among those interviewed used ICT, and the prevailing work arrangements in personal care jobs are often impediments, whatever the immigrant's own interests, for ICT access and use.

Experts and stakeholders involved in this research agree that the above opportunities could lead to more effective care giving intervention and to benefits for the care givers as well (immigrants or not). However, for these results to materialize, as far as Italy is concerned, a wide and deep evolution-transformation of social and healthcare provision is deemed necessary:

- in cultural terms, starting from the way care giving is perceived. All too often, caring is seen as simply a matter of 'behaving well' and displaying attitudes and gestures supposedly 'natural for any woman'. Care workers' contributions are perceived as merely emergency-covering, with no further scope for professional development;
- in the underlying mechanisms of professional training, service coordination and governance. For instance, training immigrant care workers is a critical issue in its own right which must face the broader problems of an underdeveloped formal job market and related lack of an employment framework capable of 'receiving' and valuing (also through higher wages) better qualified care workers. Supporting regular employment<sup>4</sup> and better connection of immigrant care workers with the networks of public social and health services are thus pre-conditions for their enhanced training and for exploiting the above ICT opportunities;
- in terms of a significant technological upgrading. The report clearly states that ICT applications are not a substitute for care giving, but can helpfully support *personal* social care delivery and care givers. Greater public investment in personal homecare provision is thus a prerequisite for a wider deployment of ICT in this domain. Two priorities are suggested here: first, providing homecare organizations, and the public agencies supervising them, with systematic information, examples, etc. of ICT applications for home care; and second, enhancing training of home care workers and the staff of those organisations which employ care workers to gain basic skills on ICT use and functional adaptation. To pursue these goals, greater economic investment must be accompanied again by a 'cultural reform' of the attitudes of key social welfare

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<sup>4</sup> As discussed in the report, this may face resistance not only from the employers (for cost reasons), but also from at least some immigrant care workers.

stakeholders with respect to ICT. A bottom-up diffusion process is unlikely to succeed, unless facilitated by strong and qualified public policy efforts.

## INTRODUCTION

The role of the immigrant labour force in providing personal social care in Western countries has raised remarkable interest in the literature on the subject, combining a social welfare and a migration studies approach (e.g. Parreñas, 2001; Hondagneu-Sotelo, 2001; Misra et al., 2006; Yeates, 2005). In the recent debate on evolving care needs for vulnerable people, such as the elderly, in their own domiciliary settings, the use of new technologies has also raised increasing attention, in terms of their contribution to safer and more effective care arrangements, which can facilitate older people's autonomous living (Miskelly, 2001; Leys and De Rouck, 2007). 'Personal care', 'ICT' and 'immigrant care workers' should thus result in a potentially rich common ground for highly integrated, personalized and even, once systematically implemented, cost-effective arrangements in social and healthcare provision.

Whether this is true in Italy and if not, what circumstances could give rise to this kind of healthcare provision, is the core issue of this report. So far as we know, the three "pieces" of this jigsaw have never been put together; either in theoretical debate, or in the practice of social care services to older people. Our attempt to do so, thus, is a preliminary and explorative one, in which we combine different (and even disconnected) research domains in theoretical terms. We build on feasibility judgements, or – at best – on local good practices, in empirical terms.

This report delivers the results of our effort within a framework characterized in Italy by the lack of information on the topic, and the poor coordination between relevant local agencies, in a notoriously fragmented and less than generous social welfare regime, as the Italian one (see for instance Ferrera, 1997).

This research report, written on behalf IPTS,<sup>5</sup> offers an assessment of:

1. The impact and possibilities that new technologies have for personal care to the elderly, facilitating their autonomous living at home as indicated by a literature review;
2. The potential role of immigrant care workers in facilitating elderly people's access to ICT in Italy, and in mediating their everyday use, based on the results of our empirical research;
3. Immigrant carers' potential contribution in mediating, via ICT, communication and relationships between an older person's domiciliary setting and the external network of welfare institutions, social and healthcare providers and other relevant actors;
4. The extent to which ICT can facilitate immigrants' training and professional development, taking into account their skills, expectations and life projects;
5. The main evidence emerging in fieldwork for each of the key issues identified in our study, which paved the way for our empirical work.

Finally, some conclusions are offered on:

1. the possible trade-offs between the massive, unregulated resort to immigrant care workers and greater investment in ICT, given Italian welfare arrangements, and how to avoid the prospect of a zero-sum game; and
2. the positive outcomes that greater public investment in ICT in the sector and in immigrant carers' training and empowerment could generate.

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<sup>5</sup> IPTS (the Institute for Prospective Technological Studies) is one of the 7 research institutes that make up the European Commission's Joint Research Centre.

## Key definitions

In this report we will use the following terms to refer to different care givers' profiles:<sup>6</sup>

- Informal immigrant care workers: paid workers attending people (especially the elderly) in need of support for daily living in their home environment. These workers may live in (co-residency) or live out. Their employment is informal insofar as it results from a grassroots, face-to-face agreement between them and the person to be assisted or another employer. Many of them work on the black market, on an unskilled basis (see Annex 1). They are the main focus of this report.
- Formal care workers, whether Italian or immigrant: they carry out similar tasks, but they are employed by a formal organization, typically a public local authority, welfare agency or primary care unit.
- Family carers or care givers: relatives, friends and neighbours of the person in need, who play a relevant role in looking after them. Their contribution, though relevant, may however prove insufficient. Their work suffers from very poor recognition in the local welfare debate in Italy, compared with other European countries such as the United Kingdom or France. For this reason, and for the aims inherent in this research project, we have not included the role of family care givers in the scope of our empirical investigation intentionally.

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<sup>6</sup> Following the different names and meanings given in each country to the people involved in care giving activities, in the cross-country report a common definition was developed. Informal immigrant care workers are called there 'informal family care assistants'; formal care workers are called the same; family carers are called simply 'carers'. See (Kluzer, Redecker, & Centeno, 2010).

## 1. ICT, CARE OF THE ELDERLY AND IMMIGRANT CARE WORKERS

### 1.1 On the impact of new technologies in the elderly's everyday lives

The connection between older people and new technologies should be understood, in principle at least, as two-way. On the one hand, new technological devices may be a valuable resource for mitigating the decline of personal capabilities inherent in ageing processes, as in the case of domiciliary care of the elderly. On the other hand, some ICT may be actively used by elderly people themselves, for many reasons. From either viewpoint, attention should be paid not only to health or assistance matters, but also to the wider role of new technologies in facilitating older people's autonomous living and their ongoing social lives. As a recent article puts it, 'ambient intelligence' or the availability in one's home environment of intuitive interfaces facilitating everyday activities:

*Can provide a range of opportunities to support an ageing population: enabling the containment of the overall costs of care; remote monitoring of activity and physical wellbeing...; adaptive interfaces for people with physical disabilities; and a responsive and proactive environment... which enables easy communication with healthcare professionals, friends, family and the wider community. (Cabrera and Rodriguez, 2005)*

Generally speaking, there are at least three perspectives worth taking for a better understanding of the role of technologies in supporting older people in everyday life (Andrés Del Valle et al., 2005):<sup>7</sup>

- “sensing the older people's environment” – which relates to equipment which can monitor people's life spaces, thus preventing risks inherent in the ordinary use of domestic tools, in their poor health state, or in the very condition of living alone;
- “enhancing the way they communicate with their external world”, i.e. facilitating both communication with family members and connectedness to relevant services. Besides mitigating isolation, this may be an invaluable source of external help, when needed;
- “supporting their daily activities, to help them control their own well being”. This involves technologies (for instance, context aware computing) providing the elderly with reminders and personalized, timely information on their everyday habits and needs.

Nowadays, a rich spectrum of technologies, potentially ranging from monitoring and alarm systems to proper ICT systems, can therefore be exploited in any of these domains, with relevant implications for home help services and for care workers themselves.

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<sup>7</sup> Another substantive classification divides ICT supporting care of the elderly into two subcategories (Biocca and Dewsbury, 2003):

- *First level systems*, including “products, tools and/or technologies... suitable for elderly with good abilities... or with no need of specific support” (i.e. home safety systems and other technologies – sensors, alarms, etc. – aimed at controlling and facilitating basic home routines);
- *Second level systems*, that is “technologies and supports for specific needs, which mostly take advantage of informatics... or communication tools”. Relevant examples, in this case, are tools supporting users with cognitive problems in performing their everyday activities; or equipment dedicated to monitoring health data, risks of “wandering” or other behaviours and even personal lifestyles.

## 1.2 On the potential of new technologies for protection, assistance, autonomy and well-being in the care of the elderly

What do we actually mean by new technologies in the field of domiciliary care of the elderly? And what about their characteristics, impact, diffusion, accessibility – as well as the opportunities and limitations inherent in their use? The overall label of assistive technology generally applies, in ageing and social welfare literature, to:

*Any device or system that allows an individual to perform a task that they would be otherwise unable to do, or increases the ease and safety with which the task can be performed.* (McCreadie and Tinker, 2005)

Video-monitoring and health monitoring, portable alarms, electronic sensors and detectors are just a few examples of equipment that may be adopted in home care of the elderly, and even integrated into their everyday lives (in, for example, adapted housing). An underlying assumption is that being able to stay at home is valuable in its own right for older people. It is also assumed that, given the gradual decline in their capabilities, older people's problems lie in their everyday environments which need to be adapted (as a condition for their autonomy),<sup>8</sup> rather than in any fault or inadequacy of their own.

There are manifold devices and telematics applications, which can be adopted, developed, and integrated, to various degrees and with different costs, in home settings (see, for instance, Miskelly, 2001; Biocca and Dewsbury, 2003). Their actual diffusion and impact may depend not only on the resources available, or on architectural barriers, but also on the approach underlying home care interventions, within local welfare systems. Older people's attitudes, reactions and abilities to cope with new, and possibly sophisticated, devices constitute another important variable.

The basic objective of assistive technologies, in a home care setting, is therefore to enhance security, and the perceptions of safety and autonomy that the elderly have, especially if they live alone. Besides helping older people to stay at home, these technologies may make a relevant contribution to their personal well-being (i.e. countering isolation and supporting their cognitive capabilities), and also to their wider social integration, beyond the strictly domiciliary domain. Indeed, new technologies may also help older people to communicate with their family members or acquaintances, and with the welfare agencies' support networks. Thus, a broad spectrum of their emerging needs – with respect to security, health monitoring, everyday life management, socialization – may be given an answer. In other words, ICT could contribute, if it is sufficiently usable and accessible, to 'active ageing'.

The scope of this report, however, involves only ICT's role in personal care. At the same time, the potential limitations of assistive technologies should not be neglected. An ordinary use of technologies within one's daily living space, however accessible and user-friendly they may be, should not be assumed as obvious, or natural – and much less so for the elderly living

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<sup>8</sup> The emphasis on the living environment adaptations required by older people, in order to meet their "desire to remain independent at home while controlling home healthcare costs", tallies with the notion of "smart homes", where assistive technologies are integrated, as pervasively as possible, into the home. Several pilot projects have indeed been developed, mostly in the US and in Europe, to try out the model of "a residence equipped with technology that enhances patients' safety at home and monitors their health conditions... [thus addressing both their] functional limitations and social and health care needs" (Demiris et al., 2004).

alone in their own homes. The actual usability of ICT and assistive technologies, in other words, may be conditional on several relevant elements:

*Not everyone will benefit from or accept new technological aids and devices, and each individual's situation must be carefully assessed. Many people may welcome the technology although a few might view it as an invasion of privacy. Some equipment... is relatively unexpensive, while video-monitoring is quite expensive. Elderly people who have visual, auditory or speech disabilities may not be able to use some of the technology. Finally, those who have other physical or cognitive impairments may have difficulty with some equipment. (Miskelly, 2001)*

Indeed, the acceptability to the individual of home assistive technologies, however feasible or affordable, is a fundamental issue. Here, people's own preferences, their (self-)perceived needs, the perceived usefulness of technologies and the visible impact of the latter on their ordinary activities are crucial. If the problem lies in the gap between an individual's capacity and their environment, such a gap can hardly be filled, unless the people concerned acknowledge the need to do so. As a result, a key question should be asked before installing any new equipment in people's homes: "How acceptable is it to the user?" (McCreadie and Tinker, 2005).

Several factors, as the authors suggest, interact in making assistive technologies more or less acceptable. On the one hand, their availability and costs, and the housing arrangements of those involved are important. On the other hand, the 'need to be assisted' that people actually feel, their own preferences, and the quality of assistive technologies (i.e. the efficiency, reliability, simplicity and safety they perceive in any device) must be considered. Whatever the case, the subjective impact of new technologies is a variable that cannot, by any means, be discarded (Demiris et al., 2004); much more so for ICT, which are definitely new (and likely to generate rejection) for many older people.

Given the relevance of elderly people's perceptions and expectations, a key variable for the success of assistive technologies lies in the participation of end users, and the extent to which their views have been taken into account at all stages of the design process. Though arguably expensive and time-consuming, a process of systematic consultation with final users – provided their declining capabilities allow for this – should be preferred (Dewsbury et al., 2005; Biocca and Dewsbury, 2003).

For all these reasons, the issue of how elderly people interact with new technologies, even with those that are potentially more accessible and usable (such as the Internet), warrants further reflection. So does the involvement of those who, on a professional basis, support their everyday lives at home.

### **1.3 On the use of ICT in the care of the elderly in Italy: some preliminary remarks**

In Italy, there has been relatively little research carried out on the impact of new technologies on home care services (which seem to be comparatively limited) and on the elderly's own use of new technologies. Some general remarks can however be made, bearing in mind the growing demand for immigrant female labour in personal social care over the last decade (Gori, 2002; Da Roit and Castegnaro, 2004; Pasquinelli, 2006). Further Italian specificities can also be identified. For example, from a demographic point of view, Italy has very low fertility rates combined with a growing elderly population (Istat, 2007; Eurostat, 2006). From

a welfare arrangement viewpoint, social care services for the elderly are relatively poorly developed, and the family and the informal domiciliary setting play an important role, though there is an increasing reliance on paid immigrant care givers for everyday assistance (Saraceno and Naldini, 2003; Ambrosini, 2005).

With respect to the older population's access to computers and the Internet, Italy still lags behind the U.S. or Northern Europe countries.<sup>9</sup> Even in the case of mobile phones, which are also used by older people, official sources (Istat, 2008) report that the average use by people over 75 years old is much lower (26.6%) than by younger age groups (the values gradually increase from 58.5% for those aged 65-74, to 90% for those aged 45-54). Using mobile phones may facilitate contact with family members and 'significant others' living elsewhere. However, no specific initiative has been found promoting the use of mobile telephony as a leverage for social care.

From a supply side, no cases were found in Italy during the research of immigrant carers actively facilitating access by the elderly to new technologies, or of them encouraging the elderly to use these technologies (whatever the applied definition).

Quite similar remarks can be made, generally speaking, about the other face of the ageing-ICT connection: domotics and assistive technologies, in the wider framework of domiciliary care. Indeed, the Italian experience in this domain amounts to a patchy and diverse combination of isolated local initiatives, mostly experimental, outside any nation-wide strategic design. There is very little relevant literature beyond a few case studies of local initiatives. As a key informant (see Annex 3) explains it:

*In the Italian context, family caregiving...relies on an insufficient definition of the specific professional performance that any care worker is expected to provide. [...] This makes extremely difficult an effective mainstreaming of new technologies. (KI-2)*

This overall scenario warrants, however, a far deeper empirical analysis, with particular attention to the role of immigrant care workers in actual and (especially) in potential terms.

#### **1.4 Immigrant care workers: emergent (though hardly visible) actors in home care provision in Italy**

So far, the roles of those who take care of older people in domiciliary settings have been disregarded in the debate on the application of new technologies in the care of the elderly. We refer to family members or paid care workers. The latter may or may not live-in. In Italy, domiciliary paid caregiving has resulted, over the last decade, in an increasing supply of immigrant labour, mostly female, often employed on irregular terms or in quite informal and

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<sup>9</sup> The figures provided by the National Institute of Statistics (Istat, 2007) draw on a nation-wide representative sample and are crystal clear: within the Italian population, those using a personal computer (sometimes at least) account for 7% of the cohort aged 65-74, and only for 1.4% in the following cohort (aged 75 +). Figures on Internet use (sometimes at least) are even lower: 4.8% in the 65-74 cohort and just 0.9% in the population aged over 75. In both cases, a very significant gender difference emerges: while the male population scores 8.3% (65-74 cohort) or 1.9% (over-75 cohort) for Internet access, the female population scores, respectively, 1.7% (65-74) and 0.3% (75 and more). This data indicates that 'cyberageing' and 'grey surfers' are still, and more so in Italy, far more a matter of discourse and rhetoric than real fact. Access to the web is for now, as far as older people are concerned, a very selective and gendered phenomenon, notoriously correlated with high levels of education and/or of social and professional background (and, for sure, with a customary ICT use by some younger family members).

unregulated work conditions (CNEL, 2003; Colombo and Sciortino, 2005). Recently, empirical research has started to deal with this topic, from different angles of interest:

- the life and job trajectories of the immigrant workers in domestic and home care jobs, and the role played by gender, ethnicity and social class in their insertion in this labour market niche (Colombo, 2003);
- their evolving relationship with employer families, along with the reciprocal expectations involved (IREF, 2007; Lazzarini et al., 2007);
- their position in, and potential interactions with, the wider system of personal care services to the elderly, with respect both to institutional and informal actors (Gori, 2002; IRS, 2006).

The present analysis focuses on immigrant paid care workers, who deal with unskilled caregiving activities in elderly people's households. Our attention is specially devoted to immigrant care workers, mostly women, employed in personal homecare to the elderly (either in live-in or live-out arrangements). Our analysis, therefore, does not concern family members acting as carers, but only *paid* care workers. In Italy, the latter happen to be mostly immigrants, as far as the demand for personal homecare in the last few years is concerned. Their employment terms may be defined as informal— as they result from grassroots, interpersonal arrangements, with very weak institutional mediation. Some members of the immigrant labour force in the sector actually work illegally, i.e. without legal contracts – they may even be undocumented (see Annex 1).

Overall, there is little evidence on the immigrant care workers' access to ICT and, even less, on their utilization of any technological device in a domiciliary setting. This does not equate to saying, however, that they do not use ICT at all or that, in potential terms, there is no scope for a greater utilization by them of ICT for care of the elderly.

In the next paragraphs, our main fieldwork results will be systematically discussed. Given the lack of literature specifically on the Italian case, two levels of analysis must be combined:

- a factual, experiential analysis of both the social relationship between care workers and older people (as a key channel where ICT use may develop in practice), and immigrants' own attitudes to new technologies;
- a more hypothetical and prospective analysis of immigrant care workers' mediation with ICT to the elderly, in their own home settings or in their interaction with service providers. This analysis relies on reasonable assumptions but on very few, if any, actual experiences implemented in the field.

Factual analysis will thus intermingle with a preliminary evaluation of potentialities, though with a clear emphasis on the distinction between the former and the latter.

Based on these premises, our fieldwork has attempted to explore the potential contribution of immigrant care workers as mediators between ICT and those assisted, on the one hand and social welfare institutions and agencies, on the other. Attention has also been paid to ICT as a potential resource for immigrant workers' own training and qualifications. Indeed, the use of ICT in domiciliary care is a relevant issue in its own right, whatever the role of care workers. However, when it comes to mediating new technologies' impact in a domiciliary setting, the latter may prove to be a significant resource. As a key informant put it, the challenge ahead lies in bringing the use of ICT into ordinary people's customs and mindsets, which – in the case of elderly people – are likely to be especially conservative and resistant to change. It is

thus worth exploring the potential role of care workers, especially immigrant ones, in this critical mainstreaming process, both in technological and in cultural terms.

*The point is to bring [ICT] resources already existing, into the context of ordinary people social life. The employment of personal care workers should not really be seen as a sheer alternative [to ICT' employment], but rather as a form of mediation, in every respect: a mediation with the person being assisted, as technology facilitates personal care; a mediation with the carers themselves, who can build on technology to qualify their own skills; a mediation in the ways of interacting with the welfare agencies network. Much is dependent, however, on any given context... (KI-3)*

These remarks resonate with a wider observation that needs to be made, before focusing on immigrant care workers' contribution. Whatever the characteristics of a given technological device, the ways of relating it to the final users, and the specific needs of the latter should always be given the right emphasis. Quoting another key informant (KI-2), "*technology resources may have poor success, in themselves, unless they are connected to relevant activities with respect to prevention and social care work – that is pre-existing activities, as well as the ones that will continue even after a state of alarm has been detected*". Hence there is a need for an integrated approach, where the use of technology is part of wider prevention activities.

## 2. IMMIGRANT CARE WORKERS AS POTENTIAL ENABLERS OF ICT USE IN HOME CARE

Our first research question concerned the role of immigrant carers in facilitating the ordinary access and use of some technological devices, in older people's home environments. Acceptability, accessibility and usability issues will thus be addressed. 'Mediating' from the care workers' viewpoint should involve helping the elderly to use a simple technology, overcoming their concerns, and even – when it comes to purchasing simple aids – advising them about the more viable options available.

A preliminary point to be addressed here has to do with the main beneficiaries of possibly greater ICT development in domiciliary settings. In other words: which elderly people should reasonably be the key targets, due to both their specific needs and their residual capabilities for autonomous living? The answer, as a key informant suggests, should involve a quite distinct segment of the older population - one which resorts to personal care workers, in live-in or live-out arrangements.

*Sometimes social and health services do not reach target populations that could benefit from new technology applications, as many new technologies are addressed to an intermediate population between self-reliant and fully dependent older people. This group today is covered only by general practitioner who have many prejudices and think that they already have themselves an answer for any patient's needs. They lack awareness of the contribution of these technologies to an area of needs which does not completely overlap with health or with social care. It is an area of need in its own right, quite unexplored, but still relevant. It is a matter of lack of interest and of poor communication – a matter of culture. It is this, above all, what is hampering new technology diffusion. [...] These technologies could help creating a sort of protection network, to cover that part of the elderly population which already has care needs, but is self-reliant enough to be still living at home. They could improve domiciliary care, for instance, by making one direct visit per week to the care recipient sufficient, instead of going twice a week (KI-5)*

Our empirical research has focused on several regions in Northern and Central Italy: Lombardy, Emilia-Romagna, and Tuscany. These regions have comparatively high standards in social and healthcare provision for the elderly and high levels also, for that matter, of recruitment of immigrant care workers. The picture of the real use and impact of new technologies among older people (let alone the role of their carers as regards these technologies) that emerges, is however quite sketchy, fragmented and basically poor.

A broad distinction can be made, in the first place, between different new technologies, based on their purpose, degree of sophistication and scope for application. An illustrative continuum can then be built, with increasing complexity paralleled by decreasing diffusion and accessibility:

- personal alarm devices (which allow users to keep in contact easily with a family member, or a social worker);
- environmental safety sensors, ranging from devices preventing gas or water leaks, to antitheft alarms;
- advanced monitoring devices, both in social and health care. These allow a systematic control (and evaluation) of everyday actions and habits, in order to monitor, for instance, an older person's cognition decay. Alternatively, they may collect data on specific health standards, concerning the patient's evolving pathologies. They may

even work more simply as practical reminders – via user-friendly interfaces such as a TV set, mobile phone, etc. – of relevant activities such as medication to be taken at given times, appointments with other people, etc. The latter may be integrated with pre-existing communication channels (audio or video) and involve family members, care workers or further ‘significant others’.

What we found is that, the higher the technological sophistication, the lower the contribution one should expect, at least in the short term, from care workers in mediating their use; from social agencies, in recognizing their importance and disseminating their use; and of course, from older people, in accepting their impact. For the time being, it is particularly unlikely that significant use will be made of computing and Internet applications in in-home social and healthcare, unless it is used for care worker training, as we illustrate below. A key informant has effectively summed up the issues at stake here:

*As far as computing and Internet are concerned [as to their application for elderly’s home care], Italy is too backward and this applies even more to the immigrant care workers’ home countries. More basic tools, here, work much better. Internet can be helpful for training, rather than for coping with the problems inherent in elderly care. E-learning and training at distance are no doubt enabled by new technologies. The fact remains, however, that in Italy you just don’t need to train care workers in using them, since the care recipients and their families don’t know anything about them, nor use them. (KI-4)*

Altogether, most applications of ICT for the care of the elderly in Italy are the result of local pilot initiatives, and these are hardly ever supported by wider, co-ordinated institutional strategies. More often than not, such initiatives do not turn into patterns of ordinary service provision, nor are they suitably monitored, assessed or evaluated. Systematic trials of potentially relevant ICT devices are lacking due to the paucity of specific skills and expertise in care service providers, and to the sheer cost involved. Also, there is a pervasive scepticism as to the real contribution of some devices. Hence, there is a general lack of reliable information, even on the potential services and availability of already existing technological devices.

Access to new technologies may prove difficult for the elderly, and should not be taken for granted by those assisting them. The provision of knowledge about the potential of new technologies for in-home services, even within the relevant public authorities and social care agencies, is by no means widespread. Interest in investing in them is far less widespread. To quote two interviewees:

*You need a common vision: the very idea [of new technology applications] should be widely shared, otherwise it will never start. If a project [involving ICT] is well developed in technical terms, those providing care to dependent elderly people should be more and more informed about it. While the basic idea may come from a technician, you need a common and agreed upon caring project for it to flourish. [...] Some of them [social practitioners in local authorities and in service providers] haven’t even heard of active lifters... (KI-3)*

*In order for ICT to be employed on a wide scale, significant negative prejudices must be addressed among service providers in the first place. Unless these prejudices are removed, the use of new technologies will remain limited to a few trials. The problem with new technology has also to do with social workers’ inability to promote them, or to convince the elderly to make a good use of them. [...] It is not only a matter of “cultural*

*resistance” on users’ and families’ side, but also on the side of service providers, as they don’t understand that they just can’t find an answer to any need within the scope of their own service provision. (KI-5)*

On the demand side, the intricacies of properly adapting technologies to the elderly’s attitudes and specific needs, and the professional investment required to deal with them, should not be forgotten. While older people’s perceptions and attitudes are a challenge in their own right, the fact that each care recipient can have quite specific needs can result in quite different degrees of employability of technological devices. Bearing these two types of challenge in mind, the potential contribution of care givers, and specifically of immigrant care workers could develop on two levels. Firstly, they could play a trust-building mediation function, by facilitating older people’s acceptance of the new technology, as a routine - or at least a not too intrusive - object, within the home environment. Secondly, they could play a more practical (and maybe less critical) role, by applying/using the technology themselves, in the cases where the care recipients are unable to use them. Before an investment on either level is made, however, wider contextual factors should be taken into account. We refer in particular to the generally scant and unsystematic use of new technologies in elderly home care provision; and to the poor integration between different technological devices, and between those providing them and the mainstream social welfare services. As an interviewee, who is expert in assistive technologies, put it, the cost involved – though often relevant – is by no means the only issue at stake here:

*The actual utilization of assistive technologies is still conditional, at the moment, on the start up of new trials, with – say – 50, 100 users. Often no further development of service provision models occurs and no impact assessment is done. Public authorities are not yet responsive enough on this aspect... as they do not have enough money, they give up impact validation. However, assessing a trial’s results is not straightforward. Often the case is that an interface is not appropriate (or weak) in itself, but depending on the user’s characteristics and needs. For instance, for an older man a TV set can be a very good interface, as he is accustomed to using a remote control. However if he has any hand mobility limitations, it all comes to nothing. I mean: if you don’t make a preliminary analysis of what is really appropriate, you run the risk of just stating “it cannot be applied”, even if the real problem was the lack of an integrated analysis. (KI-1)*

Facilitating the adoption of any technological assistive device is a complex task, as this enters the delicate realm of elderly people’s habits and life spaces. According to the literature (e.g. McCreddie and Tinker, 2005) and to our key informants, there are good reasons to expect that older people will have a negative reaction at the beginning. Whatever the technologies implemented, it is a matter of accepting something new and unknown, which inevitably calls for modifications –however small – to their everyday routines. The role of those living with older people, or of those who they trust, is crucial in facilitating an initial acceptance of technologies and later daily use of technologies. From both viewpoints, immigrant care workers are a valuable resource, provided a trust relationship is built up between them and those they care for. Their constant support of the elderly living at home makes many of them the only actors who could play a role in facilitating the use of simple technologies, in administering them, and in monitoring their utilization. This may apply, for instance, to safety systems such as alarms, sensors or detectors, or even to e-health or remote assistance applications.

A potentially fertile ground for further involvement of care workers is, according to some key informants, telemedicine and domotics in a wider sense. As to e-health, a live-in care worker

could, for instance, be trained to help older people – provided they are relatively autonomous – to perform medical checks periodically (e.g. blood pressure control or an electrocardiogram), and then send the relevant data to health services. As regards domotics, some simple technological devices could help care workers in tasks such as moving or lifting the assisted person, or in doing these tasks under safer conditions. The care worker could also teach the elderly person to use some instruments by him/herself, thus maintaining a reasonable degree of personal autonomy.

No matter how user friendly an assistive technology may be, its introduction into elderly people's lives calls for a mediation function – for them to accept it, understand its mechanisms, and even use it – which trustworthy care workers, as long they receive adequate training and incentives, should be able to provide. Immigrant care workers' training and active involvement, therefore, is an issue to be addressed in its own right. Before moving to that, we now look at the contribution of some ICT, via care workers' mediation, in facilitating communication and interaction between a domiciliary setting and relevant actors, both institutional and informal ones, within the local system of health and social care to the elderly.

### 3. IMMIGRANT CARE WORKERS AS A POTENTIAL LINK BETWEEN THE HOME SETTING AND THE SOCIAL AND HEALTH CARE SYSTEM

The second key question underlying our empirical research had to do with the ‘external side’ of homecare practices: that is, the relationships between dependent older people still living at home and ordinary health and social care services. Given that the new technologies could facilitate contacts and communication between care recipients and local welfare agencies, what is the potential role of carers in mediating or even accelerating this process, so that solutions to problems that may arise can be found?

A caveat, once again, is in order here: our fieldwork indicates that the state of the art is definitely poor, as regards systematic experiences implemented in local welfare arrangements in Italy. Again, therefore, our discussion here is about potential interventions, rather than existing ones. Italy needs a much longer process of maturation in both cultural terms, and the underlying mechanisms of professional training, service coordination and governance –not to mention the need for significant technology upgrading, in care and health service provision itself.

ICT may facilitate carework, first of all, insofar as they alleviate the burden of a care worker’s daily tasks. Some technological applications would help care workers (whether immigrants or not) to save time on practical housework-related matters, giving them more energy and time to invest in their caring tasks. They would also be able to pay more attention to the relational side of their activities.

*It is an opportunity for care workers to be much more effective in what they do. They have just a limited time for each user: if they can rely on a telematic system for booking service provisions, without going all the time there to collect a prescription, to do shopping, or whatever, as these services are managed in a different way, well – their working time then is really dedicated to those they care for. Otherwise they just fetch and carry for the elderly. If you can rely on some telematic service provision, therefore, care workers’ performance should improve, along with their professional skills, given more scope to practise them. (KI-1)*

As another key informant put it, in wider terms, the contribution of ICT – in so far as their implementation should result in a network which connects the domiciliary setting with formal and informal welfare agencies – is likely to enable a more effective caregiving intervention.

*New technologies, such as Internet or telematic networks, can improve the connection between an older person, volunteers, associations and social or health services. This is definitely an added value that can be provided by new technologies. Telematic networks, insofar as they allow for a connection between different actors, can reduce the burden on services, improve their utilization, and therefore give value to professional care workers’ contribution. If an older person can be connected in real time with voluntary associations, care services, and anybody checking their conditions via tele-monitoring, and if the data so collected is made accessible to anybody (authorized for it), that would be a big advantage. (KI-5)*

Here, the key point lies in the role care workers could play in mediating elderly people’s real time connections with care agencies, assuming they are unable to connect with them on their own; and also in facilitating the collection of relevant data, acting as personal interfaces with

the technological devices. The contribution of care workers and of specific ICT devices can indeed complement and feed each other when it comes to collecting detailed and long-term information on the person being assisted at home. This information can then be provided to social and healthcare agencies.

Data systematically collected by a special device – on any relevant aspect of an older person's attitudes or behaviours – can be integrated with the care worker's own observations. These, though inevitably subjective, result from the care worker's everyday contact with the person concerned, and may result in valuable insights, which could complement to a certain extent the technical data collected via ICT. A key informant sums up both the potentialities and the limitations inherent in immigrant contributions as information providers via ICT as follows:

*So much relevant information could be collected, thanks to the mediation of these care workers... who, after a while, have a good idea of the person they are assisting, of their wider environment – the physical and the social one; the relational and the family one; the wishes and the inabilities of those they care for... They could really be a rich source of information... once you find a way to respect [the assisted person's] privacy, even in computing terms... it could even be a two-way information exchange [between care workers and welfare agencies]: I will tell you this, you will tell me that... there is huge scope for developing this. It's not even a matter of new technologies, which one should create for this purpose... I mean: you just need a phone line and a questionnaire or a check list... (KI -3)*

With respect to the interaction with social care agencies, care workers' contributions could be even more direct with the help of dedicated interfaces, interconnected with service providers via the Internet. Once specific social or health needs show up – provided they are not emergency ones – care workers could be enabled to contact the relevant social and health institutions and the right professionals within them, directly. By means of a special ICT network, faster and more flexible professional interventions could thus be facilitated. To quote another key informant:

*When it comes to self-reliant – or nearly so – older people, a care giver – especially in a live-in arrangement – can be helpful even as a 'tool' in detecting a social or health need which stretches beyond a care workers' own expertise and may lead to a clinician making a domiciliary visit. Provided an Internet connection exists, a care worker could send information this way, and not necessarily by phone. They could get in touch with a central communication service which would allow for quicker interventions... based on the description of symptoms and problems they received... As it is often difficult to find the right person by phone only... a care worker could be trained in using a software, allowing for a direct contact with relevant welfare agencies... With the health system becoming ever more complex, you may even not get in touch with the right person by phone. However, the care worker could send quick and proper signalling via web, by following a standardized procedure that would ideally deliver the message to the right professional. Care workers would thus act as mediators between an older person and social or health services... this mediation could apply also between the elderly and their families.. (KI - 5)*

## 4. ICT POTENTIAL FOR QUALIFYING IMMIGRANT SOCIAL WELFARE PROFESSIONS

The last key question in the development of our empirical research shifted the focus from the demand to the supply side of personal care. As regards immigrant care workers' own skills, expectations and life projects, what is the potential contribution of ICT, in facilitating their technical training or ongoing learning, and even in stimulating their human capital growth? Could greater ICT use pave the way to better inclusion of these workers in the job market, either in the care sector (even with distinct roles or responsibilities), or in different domains?

No general answer to these questions can be given. Some key distinctive variables – i.e. education, age, expertise in (and satisfaction with) personal care jobs, expectations underlying the migration process – must inevitably be taken into account.

Although some empirical research has been conducted in Italy in the past few years, involving care workers' own perceptions and (reported) future expectations (e.g. Colombo and Sciortino, 2005; Lazzarini et al., 2007; Ambrosini, 2005), the paucity of factual evidence on the topic is still striking. Once again, a 'potential' rather than 'factual' perspective should be adopted here.

The literature suggests that Eastern European care workers – such as Ukrainian or Polish women – have, on average, higher human capital levels and higher education than their peers from different countries (CeSPI, 2007); including those from Italy (Boccagni, 2007). The same generally applies to younger cohorts of care workers, with respect to their older counterparts.

Other relevant factors that may condition the use of ICT are immigrants' relative stability within the local labour market; their views about remaining in live-in arrangements and in the personal care market.

Another factor which may encourage their use of the Internet is the desire to communicate with family members at home. This is an especially significant need when it comes to 'transnational mothers', an ambivalent parental role played by many migrant women employed in personal care in Italy (CeSPI, 2007; Ambrosini and Boccagni, 2007).

In principle, one could expect ICT to be a valuable resource for immigrants' professional training, because of its adaptability to different language backgrounds. It also offers an alternative delivery mode to that of conventional training, often disliked by immigrants because of the working time they lose, and other costs and shortcomings. As one of our interviewees put it:

*As far as training is concerned, technologies provide an answer to the needs of training at distance, with just a few group lessons in a class setting. Nothing better than using technologies, when it comes to the training of personal care workers coming from many different countries, with as many different levels of education, habits, past experiences with technologies and age ... (KI-3)*

However, our own empirical research, which draws on 24 interviews with immigrant women care workers (see Annex 3), has provided quite limited evidence of their actual need for ICT in their everyday activities, and of their skills in this respect. For many of the respondents, the

interview was an inspiring experience, as it drew their attention to issues of potential interest – for both and the families, or services employing them – though these issues were in fact completely marginal in their own everyday practice. Whatever the personal and professional trajectories of the interviewees, some commonalities are worth underlining.

In the first place, none of the interviewees reported ever having used care-related technologies, apart from electric lifts, in any domiciliary setting. Mobile phones are relatively more common even in older people's homes, but as mentioned before, no specific initiative is promoting the use of mobile telephony as a leverage for social care.

Most of the immigrant care workers interviewed, including those attending training programmes, did not put much emphasis on new technologies. Some of the immigrants, however, were familiar with ICT, in that they used the Internet to communicate with their home countries. Education level and length of permanence in Italy both seem positively correlated with this familiarity. Their own vision of ICT's potential contribution to personal care, was that it could be an advantage as it could alleviate some of the physical effort involved in carework and it could give greater autonomy to care recipients.

Three excerpts from the interviewer's field notes shed further light on the main issues at stake here:

*Today's three interviewees have happened to use only electric lifts, as far as technology for care delivery is concerned. [...] Two of them use a PC on their own, when they need to communicate or to look for information. The younger of them uses it quite a lot, looking also for information related to her job (e.g. on Alzheimer's disease). Sometimes she also looks for information relevant to the older person she assists, who does not have a PC. [...] None of those assisted by the interviewees have ever had a PC, apart from two disabled persons, in their fifties, who use it a lot. [...] The three interviewees seem well convinced of the utility of new technologies when it comes to – as they put it – electric lifts, recline chairs, electric wheelchairs with remote control, diabetes measuring devices, and computers. While a lifter is perceived as very useful in moving weighty persons, the other devices seem helpful in strengthening older persons' autonomy ("there would be less of a need of their relatives' help"). A computer may be useful, as they put it, both in planning activities and drug dispensation for the assisted person, and as a means to do some tasks (e.g. banking) without leaving home. [...] The only hint to new technologies, they've heard of in their training course, had to do with electric lifters. [Interviewer's field notes, 19.02.2008]*

*Today's interviewees are absolutely distant from ICT, although they sound curious about them. For that matter, the domiciliary environments of those they assist are quite devoid of any care-oriented technological device. [...] PC and the Internet are for them, at most, a source of information on their jobs and of communication with those left behind. [...] Talking about technological support for their work, they say they may be useful for older people with moving difficulties. The most expert of them sounds nearly suspicious, as if given her lack of skills in managing new technologies she did trust much more in her own physical strength. [Interviewer's field notes, 05.02.2008]*

*Today's interviewees have had a chance to try some devices, during their training course. As all of them say – however – the topic should be dealt with more in depth. They say technologies could facilitate their work, for instance they could leave an older person safely alone for some hours, thanks to remote assistance devices. Often, they argue, a domiciliary care worker is seen as a factotum, while she should dedicate much more time*

*to be truly a companion for those assisted. None of them, however, use a PC or the Internet, nor even for communication purposes. [Interviewer's field notes, 19.02.2008]*

As to the content of training courses – which are still quite infrequent, especially those involving ICT – a few more remarks can be made. First of all, self-training initiatives, for instance using videos showing correct caring behaviours and good practices, have considerable potential. Indeed, as other studies suggest, the training needed by immigrant care workers is often to do with practical tools and ideas for everyday problem solving, rather than wider and less directly employable theoretical questions (Boccagni, 2007). Self-training through videos or PCs may also be a simple though effective way to improve linguistic skills. Another favourable domain for enhancing care workers' skills in ICT is arguably that of telemedicine. As a key informant pointed out:

*Training [immigrant care workers] with respect to new technologies may be more effective when it comes to telemedicine. Here you need someone capable of setting sensors in the right position, of testing pressure... maybe an older person is unable to do that alone, and a care worker can be helpful... it's really a good idea – here [a proper training] would have a very good effect, and every older person with a care worker could be easily monitored by means of a pressure or a heart check, made at distance... (KI-5)*

The fact remains, in general, that training immigrant care workers is a critical issue in its own right, whatever the content (which may include a basic knowledge of some technological devices) and the means used to deliver it (which may include ICT-based systems).

The broader problem is that two thirds of the home care job market in Italy is informal, and unregulated (see Annex 1) and that the regulated part of the market is still small. This means there is no employment framework capable of 'receiving' and giving value to immigrant care workers who are trained.

Local training initiatives, which aim to provide immigrant care workers with better qualifications, have been increasing in the last few years. While many of them could, in principle, pay some attention to the use of ICT applications in homecare and for care workers' own training, in practice this almost never happens. A local experience deserving a special mention in this respect is an Equal project developed in Emilia-Romagna named *Aspasia - Homecare to the elderly: an integrated system of personal and enterprise services*. Here, some basic multi-media facilities have been used to help immigrant care workers train themselves in the fundamentals of personal homecare. Such experiences are however quite exceptional, given the wider scenario of poor concern for the topic.

The challenge ahead is to acknowledge immigrant care workers' role in the labour market and social welfare. Their employment conditions should be regularised and their connections with the network of public social and health services should be promoted. More structured co-ordination with other welfare providers and better governance of the personal care system are, as far as immigrant care workers are concerned, a pre-condition for improving their training and ICT use. Awareness of this issue is growing among public officials and at the policy making level.



## 5. CONCLUSIONS: DILEMMAS AND FUTURE PROSPECTS

The overall research aim was to make sense of the role of immigrant care workers with respect to ICT use, *both in actual and potential terms*, in the following domains:

- personal home care provision (see Points 1 and 2 in the table below);
- enhancing immigrant care workers’ technical capabilities to perform care jobs (3); and
- and their wider social inclusion in host societies (4).

In Table 1, the left column lists these four main issues and the right column summarizes, for each of them, the evidence that we gathered through the fieldwork.

This last chapter will then suggest, in more interpretative (and prospective) terms, the challenges to be addressed for a greater deployment of ICT applications and a greater involvement of immigrant care workers, given the still poor technological development of the personal care system in Italy.

**Table 1 - Key issues addressed in the study and evidence from fieldwork**

<b>Purpose of ICT use by immigrant care workers: project expectations</b>	<b>Fieldwork evidence</b>
<i>(1) To mediate access of care recipients to ICT-based care services</i>	Generally speaking, the role of assistive technologies in home care provision in Italy is very limited. The contribution of care workers, up until now scarcely relevant in this respect, should be framed in potential terms – at least for easily accessible devices. No local policies for developing such potentialities have been documented. However, current trends of poor public investment in ICT for personal care, and prevailing patterns of employing immigrant care workers in Italy, hinder investment.
<i>(2) To mediate and enable health care in favour of the elderly they assist, e.g. through remote monitoring etc.</i>	No evidence has been identified of care services promoting this function (which does not rule out that, in a few cases, care workers already may play some elementary role in this respect). In potential terms, the “mediating with the outside” role (see Chapter 3) is judged as relevant, in two domains at least: <ul style="list-style-type: none"> <li>- providing relevant information to specific health agencies, through dedicated networks, building also on care workers’ everyday perceptions of those assisted;</li> <li>- performing relatively simple telemedicine tasks (e.g. blood pressure taking).</li> </ul> A much broader contribution is envisaged when it comes to immigrants facilitating communication between the elderly and care agencies, relevant institutions (e.g. banks, supermarkets), and informal support networks.
<i>(3) To develop knowledge and understanding and to improve technical capabilities in delivering personal social care</i>	This is conditional by at least two factors: <ul style="list-style-type: none"> <li>- the accessibility (which is sometimes problematic) and the technology orientation of training initiatives to immigrants, which is generally lacking;</li> <li>- personal variables such as immigrants’ social capital and previous ICT skills, and even more important their job and life projects. Working in personal care as a short term, provisional</li> </ul>

	<p>job solution reduces the incentives to invest in one's training, even more so when it comes to ICT.</p> <p>Only very few pilot experiences building on ICT for immigrant care workers' self-training have been found in this field in Italy.</p>
<p><i>(4) To improve immigrants' quality of life and their integration in society</i></p>	<p>While ICT are potentially a resource for both facilitating integration, and maintaining significant ties with the motherland, the constraints mentioned in (3) apply here as well. Structural conditions, i.e. one's success (in individual and family, or group terms) in economic and social participation, are likely to affect patterns of ICT use. Prevailing work arrangements in personal care jobs, however, are often an impediment – whatever an immigrant's own interests – for ICT access.</p>

Backwardness in technological applications for care of the elderly in Italy is the common denominator we found, along with generally little interest in investing more in this area and few incentives to do so. On the other hand, insofar as care workers' own contributions are perceived as merely 'emergency-covering', with no further scope for professional development in their own right, perspectives for greater ICT deployment will be limited, as will care workers' active involvement with them. As long as in-home caregiving is approached by families, and even by welfare agencies, as simply a matter of 'behaving well', or of displaying attitudes and gestures supposedly 'natural for any woman' (although some national care giver groups are perceived as much fitter than others for these tasks), none of the stakeholders involved will see any reason for investing more in ICT.

Many variables, somewhat interrelated, account for this situation. First, the precarious or even irregular job arrangements of many immigrant care workers may be perceived in the short term as convenient for both sides: these arrangements save money for families, and maximize income for the care workers, especially when they envisage only temporary migration. For immigrants, domiciliary caregiving – much more so with live-in conditions – is perceived as a preliminary, necessary step in a longer job trajectory. which often leads to other niches in personal services, although these may not amount to any proper professional mobility.

Second, we have the limited impact of ICT in home care provision for the elderly in Italy, regardless of the role of immigrant care workers. This seems to depend on technology costs, lack of experience in ICT use, and even limited cultural acceptance by both the final recipients and many social welfare agencies. In the mid-term, however, a 'generation replacement' factor may change this situation: better ICT skills among today's mature adults are likely to result in greater familiarity with technology compared to current older generations. Prospects for an ICT-enabled 'active ageing' for tomorrow's older people, however, will always depend on the provision of highly usable and accessible ICT.

Despite the fact that there is little evidence of ICT deployment in home care in Italy, its potential benefits are commonly acknowledged. For immigrant care workers', it would definitely represent an opportunity to achieve more qualifications, which could even be transferable to different job domains. In terms of care provision for the elderly, greater technological development would not only strengthen older people's autonomy and alleviate some of the need for care provision, it could also maintain and accelerate communication between the relevant actors, both formal and informal. As a key informant said about this 'networking' perspective:

*One of the ways of using new technologies involves maintaining and developing communication between different actors – hence an added value to the pre-existing*

*network, which is enabled to work better. A well-functioning network should then include older people, their families and care workers, physicians, volunteer associations and social and health services – and even agencies concerned with care workers’ recruitment and training. All of these must be able to communicate in real time, in order to achieve an adequate and continuous caring. (KI-5)*

A crucial question underlies the overall reflection developed so far: does a trade off exist – and if so, how it could be solved – between using ICT and resorting to immigrant care workers (at least in the massive, unregulated and ‘gap-filling’ form that has taken place in Italy, over the last decade). To ask the question bluntly: is it true that the more *badanti* (a colloquial term for immigrant live-in care workers) are employed, the fewer new technologies will be applied to care of the elderly? Is this a zero-sum game? The results of our fieldwork indicate that this is not necessarily the case.

The current widespread reliance on immigrant care workers in Italy arguably plays a ‘mirroring function’ well known in migration studies (Sayad, 1990).<sup>10</sup> By no means do immigrant care workers explain the poor use of ICT in the sector (this has been poor for a long time and has more complex roots). However, their widespread employment does prove how piecemeal and inconsistent, thus hardly favourable to ICT, are personal care arrangements in the country.

In principle, a home care arrangement where at least some basic ICT are introduced, their access and use mediated by care workers, (in other words, a mix between technological and personal care) would be a far more preferable perspective. For this to happen, however, many preconditions would have to be in place.

According to most experts, greater ICT use in home care, made possible by care workers’ mediation, should result in less expensive and more flexible care provision. There may be a risk, however, that for cost saving reasons technological assistance becomes simply the functional equivalent of physical co-presence in an older person’s everyday milieu. In other words: the greater the scope of technological applications, the smaller the need for someone to be physically there, for some of the time at least.

ICT may indeed support, alleviate, and even qualify caring relationships. However, for anyone and even more so for vulnerable people, a social relationship at a distance can hardly be equivalent in emotional and affective terms to one based on physical proximity (Urry, 2002).

There are no grounds, in our opinion, for being against the ‘automation’ perspective as such. We recognize the benefits of further deployment of ICT applications to the home environment, provided they are properly mediated and accepted. We argue, however, that ICT implementation should not be seen as an alternative resource to human labour, but rather as a complementary one. Though ICT can facilitate the immigrant’s work, it does not provide an older person with the ‘relational added value’ inherent in face-to-face interpersonal relationships (provided a care worker is properly trained).

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<sup>10</sup> This hints at the fact that migration often makes social transformations that are already under way in receiving societies more visible (even glaring), rather than causing them in its own right. The case applies here both to the unsatisfied need for homecare to the elderly, and to the poor application of technology in personal care services. Both phenomena existed long before the widespread employment of immigrant labour in the sector, but have become much more visible as a result of it.

On the other hand, ICT may well allow care workers to better focus their efforts on relational work rather than on housework, other petty tasks, or physical work. Thus, ICT could result in less need for personal care workers, at least in terms of working hours.

Further deployment of ICT applications in home care is likely to require the continuous involvement of personal care workers – to some degree at least – to help elderly care recipients understand and accept these applications. Thus, care recipients would not be deprived of the affections and the wider relational resources that only a close relationship, if built on a basis of mutual trust and respect, can really provide.

The fact remains that greater flexibility in care delivery, the maintenance of older people's residual autonomy and the alleviation of some exhausting personal care tasks are all valid reasons for greater (public) investment in ICT in domiciliary care.

### **In prospect**

The scope for more effective public policies is potentially wide. While a greater adaptation of immigrant workers to ICT would be a viable result in the short term if deliberately pursued, further structural barriers call for a medium-term approach. If ICT's potential to provide widespread and available solutions is to be realised, a significant transformation must take place in social welfare/immigrant policies and a more effective structure of opportunities for relevant stakeholders (local authorities, welfare services, families and immigrant care workers) must be provided.

Our fieldwork suggests that ICT has potential in at least three key areas:

- social communication and information flows, connecting older people with the primary healthcare system;
- early diagnosis;
- facilitating residual abilities maintenance.

ICT could enable more effective and targeted social care for the elderly. They could contribute to reducing the isolation the elderly often experience and improve their impoverished social relationships. Though ICT applications are not a substitute for caregiving, they can helpfully support *personal* social care.

Increased investment by public authorities in personal homecare provision is a prerequisite for a greater development of ICT applications in the sector. This investment should take two key directions:

- providing homecare organizations, along with the public agencies supervising them, with systematic information, examples, etc. of ICT applications for home care;
- enhancing training of personal care workers and, if they are employed by organisations, the staff of those organisations to gain basic skills in ICT use and functional adaptation.

For this to be successful, greater economic investment is only one side of the coin. There is a less obvious need for cultural reform, involving the attitudes of key social welfare stakeholders and their expertise with respect to ICT. A bottom-up diffusion process, in other words, is likely to fail, unless facilitated by strong and qualified public policy efforts.

## Future research

Further research on the topics addressed in this study is highly recommended. We see two main possible research paths, both of which would benefit considerably from taking a comparative perspective.

The first focuses on formal and informal care workers as defined in this report, i.e. both employed (regularly or not) by families and employed by welfare organisations, in a context in which “although intergenerational solidarity is still crucial, it is expressed less through the direct provision of care and more through the supervision of paid services” (Da Roit, 2007).

The goal here would be to explore the role of paid care workers in mediating the use of ICT on behalf of the elderly and in using them in their professional endeavours. In this respect, we take up the suggestion that “...*there could be a useful comparison in the UK for example with people who are employed directly by families outside the social care system, or within it through the Direct Payments scheme, which allows someone to employ a Personal Assistant who does not have to be trained*”.<sup>11</sup>

A comparative analysis of the role of care workers in using and mediating the use of ICT in home care would be the first of its kind in the EU. It would be valuable in terms of understanding the different patterns of social welfare that support families and paid care workers; the current and prospective use of ICT in this context; and possible training programmes, among other issues. It would also be valuable for the EU Member States to learn from each other’s social trends, and the social policies and welfare programmes they have put in place to support paid caregiving and ICT use.

More specifically, different topics could be addressed, such as:

- To what extent do care workers use ICT in their activities? For what purposes?
- Could they play a greater role in mediating informal ICT-based healthcare delivery?
- What specific functions might be supported and what skills are needed? What are the opportunities and risks for the different functions?
- What are care workers’ main training and support needs, and how are these currently addressed (for example, within immigrant self-help groups)?
- Can ICT-based solutions help to meet these needs? Are there useful examples of this?

The second research path would focus on the use of ICT by carers (mostly family members) in home care for the elderly. The main focus here - again from a comparative perspective – would be on how much ICT are used, under what conditions and for what purposes, and how current use could be improved and supported, also considering the care worker’s role.

This second research topic has already been partly investigated in Europe under the broader heading of ICT and ageing. However, a comparative exploration of how families use or could use ICT for care giving and to gain support in performing these tasks, has not been carried out as yet.

Different topics could be addressed, such as:

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<sup>11</sup> This suggestion was given as feedback to an earlier version of this report by Madeleine Starr, Strategic Projects Manager at Carers UK.

- How much do elderly people really use ICT, or how interested would they be in using it? For what purposes?
- Do carers perceive a digital divide problem? How do they cope with it?
- Could carers play a greater role in helping the people they assist to use more ICT? How? What needs to be done in this respect? What specific functions could be supported?
- What opportunities and risks can be identified in relation to a wider use of ICT by families and carers?

In both cases, a comparative analysis considering Northern, Central, Southern and Eastern European countries could highlight different patterns in terms of social trends, public policies and possible recommendations, both at national and EU levels.

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## ANNEX 1: IMMIGRANT CARE WORKERS IN ITALY

Out of a total population of 59,1 million people, Italians aged 65 and over are 11,8 million. As a result, Italy has the largest amount of elderly people in the European Union, as a percentage of the overall population (20%). The increase in the number of elderly who need to be taken care of is coupled with the decrease in the number of family carers.

All these changes occur within the framework of a limited public social welfare system whose support – compared with other European countries – is quite limited. In particular, public home care assistance covers less than 5% of total elderly population, while for example in France, the Netherlands and England this figure ranges from two to four times as much.

The notion of immigrant care workers applies in Italy to the increasing use over the last decade of immigrant workers in domestic tasks, and especially in home care of dependent older people. This phenomenon has been increasingly investigated (Gori, 2002; Colombo, 2003; Da Roit and Castegnaro, 2004; Ambrosini, 2005; IRS 2006; Pasquinelli, 2006; Lazzarini, Santagati and Bollani, 2007; IREF 2007). The employers of immigrant care workers are families and their duties range from domestic care and hygiene to personal assistance.

Three key variables account for this emerging private, social welfare network:

- demographic trends, resulting in an increasing number of frail elderly people (about 2,5 million, according to recent estimates: Gori 2006);
- from the ‘demand side’, cultural orientations which privilege home care rather than residential settings (which is consistent with the function traditionally played by the family, as a ‘welfare institution’);
- from the ‘supply side’, the relative lack (and high costs) of rest and nursing homes, on the one hand; the long-standing public welfare orientation to spend in money transfers, much more than on in-kind personal services, on the other.

In sum, the weakening of family support and a traditional limited public social welfare are the main reasons of the fast growing number of *badanti*, that is women (immigrant for more than 90%), directly employed by the elderly and/or their families. Recent estimates speak of a total of more than 740.000 immigrant women care workers, employed by families. Two thirds of these work in the black market (IRS 2006; [www.qualificare.info](http://www.qualificare.info)). In fact, their composition can be summarised as follows:

- 42% are undocumented, illegally living in Italy;
- 25% are documented, without a regular job contract;
- 33% are documented, with a regular job.

So, this is a very much hidden phenomenon, marked by informality, which is not only equivalent to ‘illegal’. It also refers to the generally spontaneous, bottom-up development of this phenomenon. Efforts aiming at its qualification and regulation are growing, both at the national level (e.g. dedicated quotas in national immigrant recruitment policies) and the local level, through training programmes, support to family/care workers mediation and job matching, even a few public registers of care workers.

The bulk of immigrant care workers' recruitment still develops along informal networks, mediated by local acquaintances and ethnic ties, or possibly by charitable institutions, but with a still marginal role of public welfare agencies.

Given the dominant black labour market, a big issue concerns training. No overall nationwide figures are available as to immigrant care workers' educational and professional backgrounds, nor with respect to training initiatives in Italy. These tend to be quite episodic and fragmented, involving overall only a small part of carework immigrant population. Orientation towards training very much depends on the care worker's countries of origin.

Immigrant care workers from Eastern Europe – which represent an estimated 55% of the total – are generally older, without family in Italy, and have a short-term migration project; in compliance with this point of view, they feel transient in their stay. They seldom apply to training programs.

On the other hand, immigrant care workers from South of America (about 32% of total) are generally younger and have a long-term purpose linked to bringing their relatives in Italy. They are usually much more eager at training.

For both groups, live-in carework is often perceived as a first-step job condition; not only as it is inherently unstable, but indeed because further and less demanding carework may be preferred, in the middle term. So, training programs tend to develop skills which are transferable and relevant even in different carework domains (namely in public services, nursing homes etc.).

But training is not the only issue to address in the perspective of better regulating, qualifying and supporting home care delivery by immigrant workers. Two other core issues are worth mentioning.

The first is immigration legislation. The Italian government announced in 2007 the willingness to give residence and work permits to a part of the 42% undocumented *badanti*, and discussion aroused around the way of doing this (Pasquinelli 2008).

Secondly, a growing number of local welfare services are committed today to build a 'regulated market' for these 740.000 *badanti*. This aim is being pursued by developing policies for private homecare and improving a network of services dedicated to families and immigrants care workers: income support, training, case management, and supporting the match between the supply and demand of personal care jobs.

## ANNEX 2: FIELDWORK METHODOLOGY

This research has developed along three fieldwork lines, corresponding to as many key steps. All of them have been focused, from different viewpoints, on the work conditions and the prospects for personal and professional development of immigrant care workers.

The emphasis on the supply side has been warranted by the sheer novelty of the topic, as a matter of empirical research. On the demand side (i.e. older people's needs), scientific literature is rather relatively more rich, including with respect to ICT use and impacts. Given the limited time and budget frame, we have concentrated interviews mostly on the side of immigrant care workers – rather than that of the elderly - because they are far less analysed and known until now in Italy, especially with respect to ICT-related aspects.

The three fieldwork lines can be described as follows.

- 1.) A focused evaluation of the actual coverage and usability of new technologies within the system of welfare services to the elderly in Italy: which technologies may apply where, under which circumstances, for which tasks. Attention has been given also to differences related to local contexts, organizations involved, need assessments, available resources, etc. This fieldwork step has mainly addressed experts in technologies supporting elderly care: researchers, elderly care managers and consultants and dedicated civil servants (see Annex 3 for the professional profile of interviewees). A few of them have been selected for their peculiar expertise or their participation to good practices (related either to an effective implementation of ICT in elderly care, or to the development of older population's digital skills). Relevant topics dealt with in interviews have included the following:
  - a. An assessment of four new technology domains, potentially relevant in elderly care, namely: sensors, detectors and alarm systems; remote monitoring devices (audio/video monitoring, health monitoring); PCs and the Internet; domotics in general. The assessment addressed their: diffusion; accessibility and usability for the elderly; impact on home care arrangements and outcomes; impact on care workers, i.e. skills they are expected to have, if any, for technology use to be effective;
  - b. If possible, a good practice to be described in each domain;
  - c. A wider evaluation of the general scope and impact of ICT nowadays, and their prospective potential in the local and national policies and in practices of elderly home care;
  - d. A focus on the factors accounting for the more relevant differences, as to ICT availability, scope and impact in elderly care (and in their own everyday lives);
  - e. The potential contribution of immigrant carers in acting, or in being enabled to act, as intermediaries for e-health (or other new technology) solutions in elderly home care;
  - f. The potential role of ICT in immigrant care workers' training, qualification and professional development; and, more specifically, in immigrant care workers' mediation between the elderly and the social and health care systems (its different institutions, actors, levels of intervention);
  - g. The possible contribution of public policies/interventions in facilitating ICT diffusion in elderly care, also via a more active immigrant care workers' role.

- 2.) A pool of exploratory interviews of 21 immigrant and three Italian workers (mostly women) employed in the home care sector (approximately half of them being participants to local training initiatives for personal care provision). Their origin countries were South American (Ecuador, Colombia, Peru), East-European (Ukraine, Romania), and Asian (Philippines): see Annex 3. For all of them, two vocational guidance centres to family care workers near Milan (in S. Donato Milanese and Sesto S. Giovanni) were selected as interview settings. This has allowed for a closer understanding of their own experiences and capabilities, attitudes and interests in using new technologies, both on the job and in their own private lives.

After investigating their expectations, attention was drawn to the factors that may account for their greater engagement with new technologies, whether in their professional training, or in direct care giving, or even in supporting their relationships with family members left behind in the motherland.

- 3.) A focus group which has summoned up qualified technical opinions, as well as evidence from good practice already implemented, on the potential contribution of technologies to elderly assistance, on the one hand; on the prospective role of immigrant carers in mediating this contribution, and in profiting from new technologies, on the other hand.

All fieldwork has been carried out between January and March 2008.

## ANNEX 3: INFORMATION ON THE INTERVIEWEES

### Key informants (K.I.) interviewed

- K.I. – 1: E.T., Manager of a business specialized in assistive technologies, Firenze
- K.I. – 2: L.L., President of a consortium of social co-operatives providing elderly care services, Carpi
- K.I. – 3: M.C., Manager of a geriatric institution, Milano
- K.I. – 4: V.N., Chief consultant of a private hospital, Milano
- K.I. – 5: W.O., Director of the Elderly department of a health service, Bologna
- K.I. – 6: G.G., Consultant in the development of social care services to older people, Trento
- K.I. – 7: A.C., Consultant of an organization providing technologies for independent living, Bolzano

### Participants to the focus group held in Milano on March 19th, 2008

*Laura Invernizzi (I)*, Consorzio per la Formazione Professionale e l'Educazione Permanente, San Donato Milanese

*Loredana Ligabue (L)*, co-ordinator Equal Aspasia Project

*Canio Di Ruggeri (DR)*, Cgil Lombardia

*Marina Torrente (T)*, vocational guidance worker, Comune di Milano and Comune di Sesto San Giovanni

*Sergio Pasquinelli, Paolo Boccagni, Monia Anzivino*, research team, Irs.



## ANNEX 4: INFORMATION ABOUT THE INTERVIEWED CARE WORKERS

Case	Gender	Age	Country of origin	Former occupation	Duration of stay in Italy	Use of technology
1	female	53	Colombia	<i>not available</i>	6 years	medium
2	female	43	Ecuador	Nurse (hospital)	10 years	low
3	female	27	Rumania	<i>not available</i>	5 years	medium
4	female	42	Italy	Housewife	-	no use
5	female	45	Italy	<i>not available</i>	-	no use
6	female	45	Ukraine	Private home care workers	3 years and a half	low
7	female	38	Peru	Private home care workers	7 years	medium
8	female	51	Peru	<i>not available</i>	3 months	low
9	female	20	Rumania	<i>not available</i>	1 year	low
10	female	35	Rumania	Baker	2 years	low
11	female	41	Rumania	Dressmaker	3 years	low
12	male	33	Rumania	<i>not available</i>	<i>not available</i>	no use
13	female	55	Rumania	Nurse (hospital)	3 years	medium
14	female	31	Ecuador	<i>not available</i>	5 years	no use
15	female	48	Ukraine	Shop assistant	7 years	no use
16	female	38	Philippines	<i>not available</i>	16 years	no use
17	female	43	Ecuador	<i>not available</i>	6 years	no use
18	female	32	Peru	<i>not available</i>	8 months	medium
19	female	38	Ecuador	<i>not available</i>	8 years	no use
20	female	30	Ecuador	<i>not available</i>	8 years	medium
21	female	29	Italy	Housekeeper	-	no use
22	female	49	Ecuador	<i>not available</i>	5 years	no use
23	female	27	Ecuador	Housekeeper	7 years	no use
24	female	52	Peru	Waitress	9 years	no use

Use of technology:

- No use
- Low = use of simple instruments in work activities (electric bed, electric lift).
- Medium = use of computer and possible use of simple instruments in work activities (electric bed, electric lift).
- High = use of computer and advanced instruments in work activities.



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## **Abstract**

The report explores the use of ICT and ICT-based assistive technologies in long-term care of dependent older people in Italy, considering in particular the large number of immigrants employed by Italian families as personal care assistants. An introductory overview of ICT opportunities in this field is followed by a short description of the actual deployment of these technologies in Italy and of the situation of immigrant care workers (full details are provided in the annexes). Given that the development of ICT use in home care was found to be limited, including use by immigrant care workers, the report provides mostly hypothetical and prospective-level tentative answers to the main research questions. These concern the potential mediation role of migrant care workers in ICT use in personal home care and how ICT could be used to professionally qualify and enhance the living conditions of these workers. The report is based on a pilot study, which included field interviews with key informants, stakeholders and 24 care workers in Northern and Central Italy between January and March 2008.

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