Integrated long-term care partnerships between government social care and health agencies in Brazil: The Belo Horizonte model

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Abstract The article sets out key elements of the policy agenda for enhanced integration between health and social care for older people in high-income countries and demonstrates its wider relevance to low- and middle-income countries (LMICs). The article then explores the context for this agenda in Brazil, including growing demand for long-term care (LTC) and current institutional arrangements. It goes on to discuss a case study project of partnering for LTC between local social assistance and health agencies in the Brazilian city of Belo Horizonte. It identifies challenges and potential benefits of this partnership model, offering policy insights for LTC policy in Brazil and other countries.

Keywords long term care, ageing population, elder care, medical care, social services, social protection, Brazil

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Introduction: Long-term care as a global agenda

Research and policy relating to population ageing in low- and middle-income countries (LMICs) usually refer to people over the age of 60 as a single category of interest. This category is particularly relevant for pension and labour policies, since it broadly matches the retirement age for many groups of workers. However, there is considerable diversity within this broad age category, in terms of gender, socioeconomic status and, also, age itself. Over the past 20 years, the number of "old older people" (aged 70+) in less developed regions has grown rapidly (Table 1). By 2020, this represented 62 per cent of the global population aged 70+, and it is projected to reach 73 per cent in 2040.

As well as making a quantitative contribution to overall population ageing, this rapid increase in population aged 70+ is generating profoundly different public policy issues. The prevalence of chronic, comorbid health conditions, disability, frailty and functional impairment is considerably higher for this age category than for people in their sixties (WHO, 2015). This leads to much greater demand for health services and for long-term care (LTC). The consequences of this rapid trend are felt across societies and economic sectors: in terms of gender inequality and reduced access to paid work for a largely female care-force, as well as in terms of fiscal pressures. Until recently, these challenges were thought to be the exclusive concern of high-income countries. However, there has been growing recognition among international agencies of their global significance, and this has prompted a limited amount of research on LTC systems in LMICs (ILO, 2015; WHO, 2021; UN Women, 2019).

Table 1. *Population aged 70+ for selected regions and Brazil, 2000, 2020 and 2040*

		Population aged 70+ (1000s)
Less developed regions	2000	150,684
	2020	285,186
	2040*	649,857
More developed regions	2000	118,305
	2020	172,777
	2040*	248,733
Brazil	2000	5,717
	2020	12,961
	2040*	28,827

Note: *Median variant projection.
Source: UNDESA (2022).

The large majority of those older people in LMICs who have care needs continue to live at home and receive support from family members on an unpaid basis (WHO, 2021). Nevertheless, access to family support is far from complete. A growing proportion of older people are living alone or without adult relatives (UNDESA, 2020). In the People's Republic of China (hereafter, China), for example, the proportion of older people living with children fell from 73 per cent to 57 per cent between 1982 and 2005 (Herd, Hu and Koen, 2010). Even living with other adults does not guarantee support. A national survey in Brazil found 51 per cent of older women and 45 per cent of older men with care needs and who lived with younger adults reported that they received no support (Camarano, 2017).

Evident gaps in the willingness and capacity of families to provide care to older members on an unpaid, unsupported basis have spurred a growth in other types of LTC provision. These include the rapid extension of residential LTC facilities (LTCFs), such as care homes and nursing homes. For example, residential capacity in China's LTCFs grew from 2.3 million to 7.3 million people between 2008 and 2018 (Feng et al., 2020). In 2010, Argentina's Union of Gerontological Service Providers estimated that the country contained 6,000 care homes for older people (Lloyd-Sherlock, Penhale and Redondo, 2018). Typically, responsibility for these facilities is shared between government agencies, with ministries of social development/assistance/welfare often taking the lead role.

There is, however, growing evidence that LTCFs do not represent the best option for meeting the care needs of many older people. First, the great majority of older people prefer to remain in their own homes or live with relatives, whenever possible (WHO, 2015). Second, there is emerging evidence of poor quality and weak regulation of LTCFs, many of which are operated by the private sector. According to a local official in Thailand:

> There are thousands of them. You can find them at every corner of Bangkok … There are places set up by non-experts who lack professional knowledge … It's unclear who is responsible for registration or control (quoted in Lloyd-Sherlock et al., 2020a).

Furthermore, the cost of establishing and running LTCFs, while ensuring they comply with acceptable norms and standards of care is considerably higher than most older people in LMICs can afford (Lloyd-Sherlock et al., 2021a). Over the past 25 years, in response to similar concerns, many high-income countries started to develop alternative approaches to enable older people to remain at home, while ensuring their needs are still met (WHO, 2015). In LMICs, national and local governments are now starting to consider similar strategies (Lloyd-Sherlock et al., 2020b).

As part of this new thinking about LTC policy, there is increasing awareness about the potential benefits of strongly integrating LTC and other health services for older people (The Kings Fund, 2018). Evidently, there are strong connections between poor health, frailty and care needs in later life. Chronic and comorbid conditions are associated with gradual functional decline, while more acute health episodes (for example falls or strokes) usually trigger a more sudden onset of care needs (WHO, 2015). Good health care in later life can reduce overall demand for LTC. For example, effective treatment of chronic conditions like hypertension significantly reduces the risk of acute episodes such as stroke, which in turn is one of the main causes of disability and hence care dependency among older adults (Campbell et al., 2019). Similarly, effective collaboration between primary health care workers and family caregivers can reduce the risk of falls, as well as conditions such as urinary tract infection (a leading cause of hospitalization of older people in LMICs) (de Souza and Peixoto, 2017).

Even before the onset of the COVID-19 pandemic, there was emerging evidence of the benefits that can result from integrating LTC and mainstream health services for older people (Sempé, Billings and Lloyd-Sherlock, 2019). These can include more efficient use of health services and improved health outcomes for both older people and their caregivers. During the early months of the COVID-19 pandemic, a number of egregious policy failures resulted from mis-coordination between LTC and health services. These included, in some countries, the transfer of large numbers of COVID-positive older people from hospitals into LTCF settings without taking due precautions (Gibson and Greene, 2021). They also included failures to prioritize the provision of protective equipment to LTC staff, since they were not categorized as health workers (Nyashanu, Pfende and Ekpenyong, 2020).

These experiences have prompted calls for a deep or "structural" integration of health and care services for older people, so that they become parts of a single system (Harvey et al., 2018; Lloyd-Sherlock et al., 2019). In recognition, most high-income countries have embraced integration of some sort, albeit with mixed results (The Kings Fund, 2018). More superficial and cosmetic forms of integration have been relatively easily implemented. For example, in 2018, the United Kingdom's Department of Health was renamed the Department of Health and Social Care, and this was shortly followed by a new plan for service integration (National Audit Office, 2019). However, merging institutional structures that had developed independently over decades has proven a very challenging agenda (The Kings Fund, 2018). There is growing awareness that effective integration requires fundamental changes to models of training, provision, and professional behaviour and must resolve multiple, deep-rooted professional, cultural, and institutional disconnects across health care and LTC.

LMICs could benefit from these lessons while their services for older people are at earlier stages of development. To date, however, there remains a tendency to

view LTC and health provision for older people as essentially separate spheres of activity. This can be seen in institutional arrangements, where responsibilities are usually divided between health and social departments at both national and local government levels. For example, Chile's national Ministry for Social Assistance funds LTCFs run by private organizations, yet responsibility for visiting and regulating the quality of care provided lies with the Ministry of Health and there is little coordination between the two agencies (Villalobos Dintrans, 2017). A similar division occurs between the Departments of Health and Social Development in South Africa. A study of local LTCF regulation in Argentina asked different agencies if they ever met with their counterparts in other agencies in the same city (Lloyd-Sherlock, Penhale and Redondo, 2019). All responded that this had not even been considered, despite the proximity of their offices and strong informal networks (for example, several informants had been trained in the same department of the local university).

There is an evident need for government social security and social development agencies to think about how they can promote and fit into a more coherent set of cross-departmental institutional arrangements. Among other things, this is likely to include enhanced collaboration between primary health care professionals and social workers operating at the community level. In what follows, this article examines an unusual example of cross-departmental collaboration in the Brazilian city of Belo Horizonte. It examines how community-level integration has been achieved and the challenges it has faced over the past decade. Key lessons are identified with a view to informing policy in other LMICs.

Health and long-term care for older people in Brazil

The increase of the population aged 70+ will be especially rapid in countries such as Brazil. Table 1 shows a projected rise from 5.7 million in 2020 to 28.8 million in 2040 – more than quadrupling in the space of just 20 years. Consequently, the issues discussed above are emerging as urgent public policy concerns.

Compared to other middle-income countries, Brazil has an embracing and well-developed health service infrastructure, centred on the Unified National Health System (*O Sistema Único de Saúde* – SUS). The SUS is mainly managed by municipal governments and includes a strong focus on community-based primary health care (Paim et al., 2011; Macinko and Harris, 2015). Family Health Teams are responsible for referral and coordinating across SUS services, as well as acting as a bridge between the health system and local communities. The institutional hub for this service is the Community Health Centre (*Centro de Saúde*). Despite investment in these community-based health teams, population ageing is leading to a rapid growth in demand for inpatient hospital care. By 2015, older people accounted for 39 per cent of the total adult inpatient budget of public

hospitals (Dias and de Barros, 2019). The leading causes of admissions for older people in Brazil are urinary tract infections, falls, and poor management of chronic conditions: much of which could be averted through effective home care. It has been calculated that 31 per cent of inpatient hospital spending on people aged 60+ in Brazil's National Health System between 2000 and 2013 was for conditions suited for ambulatory treatment (de Souza and Peixoto, 2017). This amounted to around 275 million US dollars (USD) of hospital spending in 2013. It is evident that this pattern of health service use will not be sustainable as Brazil's population rapidly ages, increasing the importance of new, integrated models of care.

Brazil has a National System of Social Assistance (SUAS) that is structured along broadly similar lines to the SUS, albeit with far fewer resources or reach. The main focus of SUAS is the provision of non-contributory cash transfers, including a social assistance pension, the *Benefício de Prestação Continuada* (BPC). Alongside this, it is responsible for providing a diverse set of social service and social work programmes for vulnerable population groups, including older people living in poor neighbourhoods. Similar to SUS, SUAS has a highly decentralized management structure, with services provided in deprived neighbourhoods through Community Social Assistance Centres (*Centros de Referência Especializado em Assistência Social* – CRAS) (Borges, 2012). A third area of SUAS responsibility, of particular relevance to older people, is the oversight of residential long-term care facilities (LTCFs). The number of these facilities in Brazil has grown very quickly in recent years, reaching over 7,000 by 2021 (Lacerda et al., 2021). The large majority are operated by for-profit private organizations and NGOs, rather than directly by state agencies. Along with SUS, SUAS has responsibilities for oversight and quality control of these facilities. In practice, however, coordination between the two agencies is weak and regulation minimal. This disconnect became especially evident in the early stages of the COVID-19 pandemic, prompting agencies in some cities to develop emergency coordination plans (Lloyd-Sherlock et al., 2021b). As with hospital service use, there is growing recognition among Brazilian policy-makers that LTCFs should not be the main form of care-provision for older people, given the expense and the desire of most older people to remain in their own homes (WHO, 2015).

Integrated health and social care in Belo Horizonte: A new model

Since 2011, the Brazilian city of Belo Horizonte[1] has been running an innovative scheme to support care-dependent older people in disadvantaged communities:

1. With a population of around 2.4 million, Belo Horizonte is the capital city of the state of Minas Gerais.

Older Person's Care Programme (*Programa Maior Cuidado* – PMC). As elsewhere in Brazil, the city government had been concerned about the limited capacity and sometimes very low quality of care provided by local long-term care facilities and by evidence of rapidly growing numbers of care-dependent older people living in poor neighbourhoods. It was also concerned about rapid increases in hospital spending on older people.

Before PMC was established, various alternatives were considered. This included developing specific schemes of cash transfers to support the needs of poor, care-dependent older people, along the lines of those provided in several high-income countries (OECD, 2011). Such schemes have been advocated as a LTC strategy for Latin America (Caruso Bloeck, Galiani and Ibarrarán, 2017). However, policy-makers in Belo Horizonte had misgivings about this approach. First, there were concerns about the complexity and operational costs of such a scheme. Experience with targeted cash transfer schemes for people with disabilities has demonstrated that targeting is usually an expensive and imperfect process (Mishra and Kar, 2017). Where this includes evaluating care needs, the costs are likely to be considerably greater. Second, there were doubts about the extent to which families had sufficient knowledge about LTC to make informed decisions about buying care, as well as concerns that payments might be appropriated by other family members for their own use. These fears are supported by studies showing a strong correlation between dependency in later life and the risk of financial abuse by family members (Johannesen and Lo Giudice, 2013). These concerns are equally valid in Latin America where public understanding about the pros and cons of different forms of LTC is limited and there is evidence of widespread financial abuse of older people (Giraldo-Rodríguez, Rosas-Carrasco and Mino-León, 2015). In the case of Brazil, there is substantial evidence that relatives of older people have sometimes taken advantage of low-interest loans that are secured against assistance pensions, leaving the older person with large debts (Santos, 2018).

Instead of cash transfers, the government of Belo Horizonte opted to develop a new programme of community-based health and social care for poor older people. From the outset, the PMC has had a number of unusual but significant features. It was developed jointly by the municipal departments of health and of social assistance, and they continue to run it in partnership. This inter-sectoral approach is unique in Latin America, where the norm is service fragmentation and an abrupt disconnect between health and social care.

Local health and social assistance centres have joint teams, which meet monthly to screen new potential participants and to review existing cases. A key PMC philosophy is to consider the wider circumstances of older people and their families, not just the older person's health and functional status. This is especially relevant in the communities where PMC operates, where many families are facing

multiple problems and deprivations. Their difficult circumstances affect the chances that older people will get good quality care at home and require support from social assistants as well as health workers.

A second unique element of the PMC is that participating families receive support from trained PMC carers, who are recruited from similar communities and are paid a basic wage. PMC carers work 40 hours a week, caring for between one and three families. Each family receives between 10 and 20 hours of care support a week, depending on the level of need of the older person and the family's wider situation. PMC carers wear a uniform and are jointly supervised by staff from the local health and social assistance centres.

PMC carers are not expected to completely replace family care responsibility for dependent relatives. Instead, the focus is on providing primary carers some respite from what is often an exhausting 24/7 activity. At the same time, PMC carers are expected to work with family members to build their own care skills and competence. Together with the older person, the PMC carer and family agree a care plan that seeks to involve all household members. As well as providing daily support, PMC carers monitor the situation of the older person and report back to the inter-sectoral case reviews.

Integration in practice: Challenges and responses

In 2018, an independent evaluation of the PMC was initiated. The full evaluation is ongoing because of delays caused by the COVID-19 pandemic. However, preliminary qualitative data indicate that the PMC operates largely as planned, is widely popular in the communities it serves, as well as among the professionals who provide the service, and is effective in both reducing the burden on family caregivers and enhancing the quality of life of older people (Lloyd-Sherlock and Giacomin, 2020; Aredes et al., 2021).

Quantitative analysis of older people included in the PMC and older people with similar characteristics who are not in the PMC, shows important effects on health service use. These included less use of outpatient services on an emergency, unplanned basis, as well as cost savings of around 17 per cent for older people admitted to hospital (Lloyd-Sherlock, Giacomin and Sempé, 2022). Interviews with PMC staff illustrate how the programme was able to achieve these effects:

> A typical case is an older woman who needs a lot of support and lives with her husband who is also quite frail. They weren't in a position to look after themselves properly. Before they joined PMC, she was admitted into hospital several times, mainly due to dehydration. PMC can prevent these unnecessary hospital admissions because the PMC carer can intervene sooner. They get in touch with the health centre which can then deal with

> the problem without anyone needing to be hospitalized. I think that woman would be dead by now if she weren't in PMC (Lloyd-Sherlock and Giacomin, 2020).

Similar accounts were provided by the older people themselves, as well as their families:

> The PMC carer sets up his oxygen supply and stays with him chatting about this and that … She's always on the look-out in case there is anything different about him. She notices little things and then she'll tell me: "Look, there must be something going on with him. I'll have word with the people at the health centre" (Lloyd-Sherlock and Giacomin, 2020).

The evaluation of the PMC included repeated non-participant observation of monthly case review meetings, which often demonstrated the benefits of combined action between local health and social assistance agencies. This could be seen with reference to specific cases, such as that of an older man whose assistance pension had been stopped because his care-giver daughter had been too over-burdened by meeting his needs to be able to go to the pension office to renew his paperwork (Brazil's BPC pension requires annual proof that the older person is still alive, to prevent families from receiving the benefit after they die). The joint case review team was able to resolve the issue on the family's behalf, put the daughter in touch with a local carer support group, and referred the older man to physiotherapy due to an ongoing problem with a badly swollen leg.

In 2019, the evaluation team became aware of a separate international study of older people in deprived urban neighbourhoods. This covered a network of cities, including Belo Horizonte, but not neighbourhoods where the PMC was then operating. The study collected older people's views about what they thought would most improve their lives. Without prompting, the most frequent response was that they wished they lived in one of the neighbourhoods where the PMC was operating.[2]

A key initial focus for the evaluation was the effectiveness of collaboration between health and social assistance agencies (especially the Community Health Centres (*Centros de Saude)* and Community Social Assistance Centres (CRAS) operating at the community level) (Aredes et al., 2021). This found a high level of willingness to collaborate across both local agencies, but that this collaboration was sometimes hindered by pre-existing bureaucratic barriers. For example, the geographical areas served by the *Centros de Saude* did not match those served by

2. For more information, visit the website of the PlaceAge Project.

the CRAS, which impeded cooperation at the local level. Also, not all parts of Belo Horizonte are served by CRAS: these social assistance posts theoretically focus on the poorest parts of the city. This sometimes created a situation where part of an area served by a *Centro de Saude* was covered by a CRAS, but another part was not. This frequently led to a situation where older people were recommended for inclusion in the PMC, only to find that this was not possible due to the absence of a local CRAS. A second area of difficulty was a lack of clarity about the specific roles of the CRAS and the *Centros de Saude* in the local management of the PMC. For example, there was not a shared manual clarifying roles, responsibilities and modes of cooperation. More specifically, records for older people included in the PMC were kept separately by each agency, using data and formats that were not mutually compatible.

More generally, cooperation was challenging because both the CRAS and the *Centros de Saude* were generally under-staffed, with few resources and many other competing demands beyond the PMC. Monthly case reviews usually took place in the CRAS, but attendance by local health workers was sometimes limited and often involved junior and less experienced staff. Inevitably, this situation became more problematic during the COVID-19 pandemic, when there were additional pressures on health workers. A policy of regular staff rotation at the *Centros de Saude* meant that those who attended PMC meetings were often unfamiliar with the programme and lacked experience of inter-sectoral collaboration. The monthly case reviews were able to refer older people to more specialist health services when appropriate, but the limited availability of these services often led to long delays in accessing them. Making repeated requests and facilitating referrals was time-consuming and sometimes frustrating. As well as referrals, scarce resources in the wider health and social assistance systems limited access to basic care items for older people in the PMC. According to a PMC carer:

> There are a lot of very vulnerable older people in this programme, and they can't afford to buy essential medicine or items for hygiene like incontinence pads or even things like soap or toilet paper. It would be great if PMC could help with that. Also, many people live in places with lots of steps and no ramps or handrails. Why can't PMC help with that too?[3]

In mid-2019, the findings of this first phase of the evaluation were shared with representatives from the city departments of health and social assistance, as well as other stakeholders. On the basis of these findings, it was decided to carry out some reforms to the PMC's operational and information systems. These included the first ever formal legal agreement between the departments of health and social

3. Quotation taken from unpublished qualitative data.

assistance in Belo Horizonte's municipal government,[4] the development of a joint operational manual and a new shared referral and information system. At the same time, the city government decided to substantially extend the PMC so that it was operating in every CRAS in Belo Horizonte.[5] This process of extension began in early 2020, coinciding with the start of the COVID-19 pandemic.

The first cases of COVID-19 in Belo Horizonte were reported on 8 March 2020. Like other cities in Brazil, rates of infection were thought to be especially high in more deprived neighbourhoods and older people were at particular risk of COVID-19 mortality. As such, the pandemic posed major challenges for the PMC's continued operation, at a time when its participants needed it most. Due to risks of infection, most home visits were initially suspended, and efforts were made to substitute these with telephone calls and other forms of remote communication. Nevertheless, during the most severe phase of the pandemic, the PMC was able to continue to support around 85 per cent of participating families, and full services were rapidly restored (Lloyd-Sherlock and Giacomin, 2020). Coordination between local health and social assistance staff ensured that PMC carers had good access to information about the pandemic and to personal protective equipment. However, this coordination did not extend to giving PMC carers the same status as front-line health workers in COVID-19 vaccine prioritization, as this was a decision taken at a much higher administrative level, where collaboration between health and social assistance is much more limited. This was widely criticized by local key informants, but they were powerless to resolve the problem. A typical comment was:

> Our PMC carers are still unvaccinated. They feel afraid and uncertain. They have to take crowded buses to visit families and are worried that they will be infected and pass it into the older people they support (Saddi, 2022).

All PMC carers were eventually vaccinated, as part of the general adult population. Recognizing the stress facing PMC carers during the pandemic, some local health centres offered psychological counselling for them. A local social assistance worker commented:

> Our PMC carers need caring for too. They are dealing with very tough situations – many PMC families have problems with drugs, abuse and violence. The PMC carers need to share and discuss these issues (Saddi, 2022).

4. See Belo Horizonte municipal government.
5. Initially, PMC was operating in 28 out of 34 CRAS in the city; it has since been rolled out to all 34. There are plans to further extend its coverage of the city, in tandem with the creation of new CRAS.

Lessons

Rapid population ageing in middle-income countries will be paralleled by increased demand for LTC and for health services specifically related to the needs of frail older people with multiple health conditions. Business-as-usual or incremental responses will not be adequate. Instead, the rapid pace of demographic change calls for a transformative approach, both in terms of scale and strategy. This will require state agencies to play a key role – the health and care needs of older people cannot be largely left to an unregulated private sector – but the nature of that role requires fundamental change. Existing policy models may be less challenging to implement but they do not represent sustainable or effective responses. For example, some countries have mainly limited their LTC policies to cash transfers paid to older people in addition to their pensions (Lloyd-Sherlock, 2018). At first sight, this would appear to be an attractive policy option, building on existing systems and expertise in social protection. However, as discussed above with reference to Belo Horizonte, the likelihood that these payments would support the development of a strong supply-side mix of suitable health and social care services available for purchase is remote. The average per capita income for PMC households is 373 reais (approx. USD 73), which is less than one third of the basic value of the universal assistance pension (1,212 reais). Both spouses are entitled to this pension independently of each other. Consequently, this indicates a very high level of dependence of younger family members on this basic pension. In this context, it is likely that any increase in the value of the pension would be allocated to general family consumption, rather than to the specific care needs of older people.

Instead of demand-side strategies, there is a need for States to engineer the establishment of an appropriate services mix. This necessitates a more direct model of state resourcing and management than cash transfers, and one that does not simply focus on building or funding additional LTCFs. Likewise, health agencies should recognize that existing service models, which emphasize hospital-based care for older people, will no longer be tenable. Part of the response should be to rapidly reorientate primary health care services away from a historical focus on issues such as mother and child health and infectious disease control. At the same time, primary health care should be integrated with social care services provided at the community level, recognizing the inseparability of health and LTC.

Belo Horizonte's PMC programme largely embodies this integrated community-level strategy. Intersectorality runs through all PMC operations, including joint case review meetings, combined inputs into personal care plans and communication with PMC carers. Rather than focus exclusively on the health and functional status of older people, the PMC considers their wider

family situations. The situations of many PMC families are far from ideal and require more comprehensive forms of support. Nevertheless, as in other countries, the experience of the PMC demonstrates that effective intersectoral cooperation is a major challenge, especially in contexts of high clinical and social vulnerability. Notwithstanding stakeholders' positive statements about the scheme, problems were identified. These included a lack of clear documentation setting out agreed roles and responsibilities for the various agencies, inconsistent reporting and data sharing, some disagreement about the roles of non-health professionals, and imperfect coordination with other parts of the health system. These issues are in line with studies of integrated health and social care interventions in high-income countries (Hutchinson, Young and Forsyth, 2011; MacInnes et al., 2020; de Bruin et al., 2020). Despite these challenges, the PMC has been able to establish a strong partnership between local departments of health and social assistance and to sustain this partnership over nearly a decade.

Alongside this "deep intersectorality", a key feature of the PMC is the payment of a basic wage to carers, rather than relying on community volunteers. Experiences of volunteer carer schemes in countries such as Costa Rica and Thailand show that, though they provide some support, the contributions made by carers are limited and inconsistent (Lloyd-Sherlock et al., 2017). With the payment of a wage comes an element of professionalism for PMC carers, with contractual roles and responsibilities, including fixed hours and specified duties. If they under-perform, PMC carers are removed from the programme. There are other examples of schemes in Latin America that train and pay home carers, but these are usually standalone ad hoc initiatives and carers do not operate as part of wider health and social work teams (Flores-Castillo, 2012; Gascón and Redondo, 2014). This shows the importance of integrated community institution-building, rather than piecemeal interventions.

Relatedly, PMC is an intervention that addresses poverty and inequality in LTC. The average per capita incomes of PMC households are less than half the national poverty line. There is growing evidence that LTC services in many countries mirror and sometimes exacerbate wider patterns of inequality. Care needs are not evenly distributed across older populations, with significantly higher rates of disability and care dependency among poor older people reported for a wide range of LMICs (Rodríguez López, Colantonio and Celton, 2017; Hu, Si and Li, 2020; Sudré et al., 2011; Custodio et al., 2017). Most LTC services focus on servicing wealthier segments of the older population. There is a broad global trend towards the marketization of LTC, with increasing private sector participation relative to the role of the State (Malley et al., 2014; Chen et al., 2018). The scope for the State to compete in this market is very limited due to the high costs of running nursing homes and other residential LTCFs. Based on its operating budget and the number of older people included in the PMC, its average annual

per capita cost is around the equivalent of USD 1,500. This is not an insubstantial amount and does not include costs that are subsumed within wider activities undertaken by health and social work staff. However, the largest part of these costs is allocated to minimum wage payments to the PMC carers, which should be considered a form of social protection for these women, rather than a sunk cost. The average annual cost per resident in Belo Horizonte's not-for-profit care homes is around USD 5,400, more than three times the cost per person included in PMC. And it should not be forgotten that most older people would prefer to remain in their own homes rather than live in a residential care facility.

As well as offering women from low-income neighbourhoods a valuable basic salary, the PMC can also be understood as a capacity-building and empowering livelihood programme for economically vulnerable groups. According to one social assistant:

> Some of the PMC carers tell me that their work has helped them know more about their own rights and entitlements for social assistance. Some said they had no idea what community social assistance centres did before they started to work in the PMC.

A typical testimony from the PMC carers is:

> When my own father fell ill, I saw how he needed looking after and that was what made me think about working as a caregiver. I did the PMC training course which really helped … Before I was a carer, I just sold things on the street.

Conclusion

Across Brazil and similar countries, rapid increases in the numbers of older people in need of care call for new approaches to health and social policy. Existing models are not sustainable and will fail to meet the needs of most older people and their family carers. Cash transfers and long-term care homes do not offer substantive solutions. Instead, responses will require collaboration between primary health care providers and social assistance agencies operating at the community level. This collaboration will be very difficult without structural integration of health and social care responsibility at the national level.

PMC offers a unique example of how this community level collaboration can work. Over the past decade, the evaluation team have searched for programmes in Brazil or other LMICs that share common features with PMC. They have found none, either in the published literature or through extensive stakeholder

engagement in different countries. As a result, a recent World Health Organization (WHO) report on integrated health and social care for older people was only able to offer a single example of good practice in a LMIC, and that was the PMC (WHO, 2021). Its uniqueness may imply that the conditions that enabled PMC's development, including the close partnership of health and social assistance were highly unusual. The COVID-19 pandemic prompted collaborations between local health and social care departments elsewhere in Brazil to protect long-term care facilities, albeit mainly on a largely ad hoc and informal basis (Lloyd-Sherlock et al., 2021b). Nevertheless, Brazil's Federal Ministry of Health has now committed to supporting the establishment of similar programmes in other Brazilian cities. Not all aspects of the Belo Horizonte model may be perfectly suited to all settings, but it offers a valuable example to other cities in Brazil and beyond.

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