

Measuring the Autonomy, Participation, and Contribution of Older People

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Measuring the Autonomy, Participation, and Contribution of Older People

1. Introduction

The world's population aged 60 years and older, a billion people in 2020, is projected to double by 2050 and the number of persons aged 80 years and older is expected to triple.¹ One of the goals outlined in the 2030 Agenda for Sustainable Development Goals (SDG) is “to ensure healthy lives and promote well-being for all at all ages.”² As stated in a 2017 United Nations technical report, progress towards the implementation of this goal requires that the “necessary conditions are developed to enable older persons to lead self-determined, healthy and productive lives, and empower them to exercise their right to make decisions and choices in all areas that affect their lives.”³

Protecting and enhancing the autonomy, participation, and contribution of older people represent three critical well-being outcomes consistent with this objective. International policy instruments, including the Madrid International Plan of Action on Ageing and the World Health Organization's (WHO) Global Strategy and Action Plan on Ageing, highlight these domains, as do the special reports of the United Nations independent expert on the enjoyment of all human rights by older persons.^{4 5} Yet, clear, universally agreed upon definitions of these concepts and cross-nationally comparable data for measuring them remain sparse.

Among the numerous limitations identified relating to the collection of age and age-disaggregated data, a UN Statistical Commission report highlights the “lack of consistent data across all ages relating to specific topics of interest in the context of the Sustainable Development Goals indicators.”⁶ Thus data are missing for indicators of particular importance to older persons as well as for indicators that apply to the entire life span. The independent expert has called attention to this “data gap on older persons” contributing to the “invisibility” of older people and called for robust collection efforts in the development of data standards and statistical reporting requirements.⁷

Towards this goal, the UN Statistical Commission requested the “development of a conceptual and analytical framework for ageing-related statistics through a life course approach (including a “think piece” on autonomy, participation and contribution of older people).”⁸ The objective of this paper is to provide such a “think piece” that can frame the conversation on identifying and developing valid cross-national indicators on these three well-being outcomes. This will entail providing a critical synthesis of the current approaches to defining and measuring the autonomy, participation, and contribution of older persons, and providing recommendations for research and

¹ <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>

² <https://www.un.org/sustainabledevelopment/health/>

³ <https://www.undp.org/publications/ageing-older-persons-and-2030-agenda-sustainable-development>

⁴ <https://www.un.org/development/desa/ageing/madrid-plan-of-action-and-its-implementation.html>

⁵ <https://www.undocs.org/A/HRC/30/43>

⁶ <https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2018/03/Report-of-the-United-Kingdom-of-Great-Britain-and-Northern-Ireland-on-ageing-related-statistics-and-age-disaggregated-data.pdf>

⁷ <https://www.ohchr.org/En/Issues/OlderPersons/IE/Pages/Reports.aspx>

⁸ <https://www.un.org/development/desa/ageing/wp-content/uploads/sites/24/2018/03/Report-of-the-United-Kingdom-of-Great-Britain-and-Northern-Ireland-on-ageing-related-statistics-and-age-disaggregated-data.pdf>

future indicator development to better inform policy development and data collection on these core well-being outcomes.

2. Data requirements for monitoring the SDGs for older people

To monitor improvements in meeting the requirements of the SDGs, statistical bodies require status and outcome indicators.⁹ Status indicators define subpopulations of interest and allow for disaggregation. For example, children, people with disabilities, refugees, women, and older persons are populations identified by their associated status indicators. These groups are referenced frequently in the SDGs. Outcome indicators consist of information that is provided on the well-being of the population groups identified by the status indicators. This would include, for example, whether people with disabilities can access healthcare (an outcome indicator of interest) and whether this access is equal to that available to those without disabilities. For our purposes, age is the status indicator identifying the older people of interest and the ability of older people to attain autonomy, participation, and contribution represent the outcome indicators of interest.

Age as a status indicator in defining the population of older people

Age is inherently a continuum and defining the population of older persons requires the selection of a cut point on that continuum. The selection of the cut point can and should vary depending on how the information will be used but this complicates the development of a comprehensive picture of the status of older people. The United Nations uses the term “older person” when referring to those who are 60 years or older.¹⁰ In lower- and middle-income countries (LAMIC) with lower life-expectancies, however, a person considerably younger than 60 may be viewed as an older person. Moreover, an underlying need exists to appreciate the heterogeneity within the diverse population of older persons. When a continuum is divided into subpopulations, the intent is to create groups that are homogeneous within the group but heterogeneous across groups. Yet, with any definition of the older population, persons identified by that definition will have different characteristics, such as gender, disability, and urban context, that will affect how they experience well-being outcomes.

Some characteristics closely associated with age influence well-being outcomes, including autonomy, participation, and contribution. In general, functional abilities across a wide range of domains are different for children, adolescents, young adults, those in middle age, and older adults, reflecting the aging processes that occurs over the full life cycle. While older persons and people with disabilities represent distinct status indicators and those with disabilities can be of any age, there is a high degree of correlation between these identities. Thus, many of the indicators put forward by the Convention on the Rights of Persons with Disabilities (CRPD) are likely to be useful as measures for older persons as well. Also relevant to the construction of indicators of older persons is an awareness of the exclusion of older people, especially those residing in institutions, from the statistical surveys of many countries. When data on institutional

⁹ Madans, J., Loeb, M. E., & Eide, A. H. (2017). Measuring disability and inclusion in relation to the 2030 Agenda on Sustainable Development.

¹⁰ <https://www.undp.org/publications/ageing-older-persons-and-2030-agenda-sustainable-development>

residents are not collected, information on the well-being of some of the most vulnerable older people is not acquired.

Autonomy, participation, and contribution as outcome indicators

The collection of meaningful population specific outcome indicators also represents a complex challenge for international statistical bodies. Particularly challenging are indicators that apply across groups but where the operationalization of the indicator needs to be targeted to the specific circumstances of the group of interest. For example, participation outcomes apply to all age groups but the question is whether an age neutral indicator is sufficient or if age specific indicators need to be developed.

In the next section, we discuss these issues as they relate to the measurement of autonomy, participation, and contribution of older people. In the analysis, we discuss the kinds of data that may be used to capture each well-being outcome and provide select examples of existing indicators that cover the concepts for illustration. We do not endorse the ability of these indicators to capture the concepts of interest or their feasibility of collection but as a summary of select existing indicators. Specifically, we draw on the conceptual framework produced in the Human Rights Indicators report from the Office of the United National High Commissioner for Human Rights.¹¹ This report refers to three types of indicators relevant for measuring human rights outcomes: structural, process, and outcome. Structural indicators refer to the adoption of legal instruments and institutional mechanisms that capture “the acceptance, intent and commitment of the State to undertake measures in keeping with its human rights obligations.” Process indicators measure the “implementation of policy measures and programmes of actions” and reflect demonstrated government intent to achieve a specific outcome, such as the population coverage of a social insurance program or its budget allocations. Outcome indicators measure the “results of State efforts in furthering the enjoyment of human rights” and may include, for instance, the demonstrated impact on the human rights of the population.

3. Autonomy

Autonomy is a core human rights principle and, as will be argued in this paper, represents a necessary condition for achieving the rights to participate and to contribute. The CRPD provides a relevant legal framework for understanding the autonomy of older persons. It discusses the right to autonomy in its first general principle as the “respect for inherent dignity, individual autonomy including the freedom to make one's own choices, and independence of persons.”¹²

It is helpful for measurement purposes to distinguish between narrow and expansive notions of what autonomy means. Narrow notions of autonomy focus exclusively on the decision-making space, including whether a person has the freedom to decide and act based on their own will and preferences or whether their decisions are coerced and substituted by external forces.¹³ Narrow notions of autonomy can also be focused on individual decision-making or can recognize that

¹¹ https://www.ohchr.org/documents/publications/human_rights_indicators_en.pdf

¹² <https://www.ohchr.org/EN/HRBodies/CRPD/Pages/ConventionRightsPersonsWithDisabilities.aspx#19>

¹³ Sherwin, S., & Winsby, M. (2011). A relational perspective on autonomy for older adults residing in nursing homes. *Health Expectations*, 14(2), 182-190.

older persons frequently make decisions with the support of others, including their family, friends and communities.¹⁴ Additional consideration is also given to enhancing the decision-making capacity of older persons where supported decision-making can help maximize the autonomy of an older person who may be experiencing cognitive limitations.¹⁵

An expansive notion of autonomy incorporates this decision-making space but widens into a consideration of the choice sets available to older persons. In a report of the Independent Expert on the enjoyment of all human rights by older persons, Rosa Kornfeld-Matte provides an expansive definition of autonomy:

Autonomy refers to the principle or right of individuals or groups of individuals to determine their own rules and preferences. It includes the freedom and capacity to make one's own decisions and the legal capacity to exercise those decisions. Autonomy encompasses three main elements: an individual aspect, which includes the capacity to make decisions; an economic and financial aspect, understood as self-sufficiency and the ability to generate and receive income; and a societal aspect, which means the existence of communities and environments that are age-sensitive and age-friendly in order to ensure that older persons are able to decide or act for themselves.¹⁶

Whereas a narrow notion of autonomy focuses exclusively on the first element (the capacity to make decisions), this definition of autonomy also incorporates the two additional elements of economic self-sufficiency and the accessibility of the social environment as necessary elements to achieving autonomy. For instance, the Independent Expert suggests that “physical barriers significantly undermine the autonomy of older persons and deny them access to basic services, including health care.” Unable to access services, an older person is denied a choice for care which, she argues, jeopardizes their autonomy. It should be noted that such an expanded definition of autonomy would not only apply to older persons but to persons throughout the life cycle.

Expanding the definition of autonomy beyond the capacity for making choices to consideration of the choice sets available to the person has substantial implications for measurement and interpretation. This is especially true when the multi-dimensional aspect of the definition is reflected in the construction of a composite measure. Developing indicators for each component of the expanded definition of autonomy or a composite index of autonomy of older persons entails many complications from a measurement point of view and complicates the use of the indicators for policy development. For example, while the impact of economic status and environmental characteristics on the choices available to older persons is of great interest, equating the choices available to the ability to make them complicates the identification of policy responses to enhance autonomy. Being poor limits one's choices. The policy responses to poverty are both at the macro level, to improve the economy, and at the micro level, to increase

¹⁴ HelpAge International, Report of Asia-Pacific regional conference 2018, ‘Family, Community and State in Ageing Societies’, (Tehran, October 2018), p.5.

¹⁵ World Health Organization. (2019). Supported decision-making and advance planning: WHO Quality Rights Specialized training: course slides. World Health Organization. <https://apps.who.int/iris/handle/10665/329647>.

¹⁶ Kornfeld-Matte, R. (2015). Report of the independent expert on the enjoyment of all human rights by older persons. *UN Doc A/HRC/3043*.

people's ability to generate a livelihood in the existing economy. Policies to increase the ability to make choices for someone living in poverty focus more on legal status, power relations, and the existence of support mechanisms designed explicitly to aid in decision making.

Therefore, using economic status as an outcome indicator for autonomy is separate from other indicators of autonomy. Economic status and environmental characteristics need to be included in statistical systems that address the status of the older population but they should be done so independently of autonomy. Connections between economic status indicators and autonomy in terms of making decisions can be made through the analysis of the data. However, research could be conducted regarding the usefulness and methodological feasibility of an expansive notion of autonomy.

The capacity to make decisions

The first element of autonomy noted by the independent expert concerns the capacity to make decisions and is consistent with a narrow notion of autonomy. This includes residing in a legal setting that respects the legal capacity of older persons and provides equal recognition before the law that guarantees the right to make free and willful decisions. Examples of indicators that assess the right to legal capacity may include structural indicators measuring the presence of legislation that guarantees these rights in various forms.

For measurement purposes, it is helpful to distinguish, as is common in the literature, between individual and relational notions of autonomy.¹⁷¹⁸ In contrast to individualized notions of autonomy, which are characterized as focusing on maximizing the powers of the rational non-dependent self, relational notions of autonomy emphasize the importance of relationships, the embeddedness of decision making, and the commonness of relying on others for decision making. While this occurs throughout the age span, relying on others can be particularly relevant for both older people and children.¹⁹ The level of cognitive ability impacts the capacity for making decisions which in turn increases the reliance on others in the decision-making process.

Incorporating relational notions into how autonomy is viewed is consistent with a human rights approach that requires that the involvement of the individual in the process should be maximized particularly when it relates to older persons. Perceived or actual deficits in mental capacity, moreover, must not be used as justification for denying legal capacity in the form of the exercising rights and making legally binding decisions. Even when the person cannot express their will and preferences, their legal capacity should be respected following the standard of the best interpretation of their will and preferences.²⁰

¹⁷ Sherwin, S., & Winsby, M. (2011). A relational perspective on autonomy for older adults residing in nursing homes. *Health Expectations*, 14(2), 182-190.

¹⁸ MacKenzie C, Stoljar N (eds). *Relational Autonomy: Feminist Perspectives on Autonomy, Agency, and the A relational perspective on autonomy for older adults*, S Sherwin and M Winsby 2010 Blackwell Publishing Ltd *Health Expectations*, 14, pp.182–190189 *Social Self*. New York and Oxford: Oxford University Press, 2000

¹⁹ https://link.springer.com/chapter/10.1007/978-3-319-04987-8_3

²⁰ Article 12 CRPD paragraph, 3

Relational notions of autonomy further recognize how behaviors can be externally motivated to avoid punishment or blame, rather than reflecting one's own values or interests.²¹ Thus from a relational perspective there is a need to parse out whether the motivation behind an older person's decision is truly willed by the individual (autonomy) or if it is motivated in response to external societal and cultural controls outside of one's own values or interests (heteronomy).²² Such external controls include the presence of systematic forms of oppression, such as ageism, ableism, and sexism, that can restrict the options of older people to exercise autonomy.²³

Examples of outcome measures of relational autonomy may be identified through survey questions that assess whether key decisions made by older persons reflect their values and desires. Additional structural and process indicators may examine access to self-determination services or other supportive decision-making supports.

Existing indicators of autonomy as the capacity to make decisions

In Table 1, we provide a sample of existing indicators relevant to the measurement of autonomy. Here we focus on indicators relating to the capacity to make decisions and thus a narrower notion of autonomy. These include structural, process, and outcome measures, and incorporate measures that are at different levels of availability and application. We identified these indicators through an analysis of existing reports of international institutions, non-governmental agencies, and governments, as well as through our review of the academic research and the structural indicators provided by the World Policy Analysis Center. As noted, we do not present these results as a systematic review of indicators or an endorsement of any of the indicators in terms of their ability to capture the concepts of interests or feasibility in collection but as an analysis of select existing indicators. From this analysis, we form the following conclusions:

- The sole existing indicators with wide cross-national availability identified are included in the Global Age Watch International survey. The challenge, however, is to establish the validity of the questions cross-nationally and explore how they are affected by cultural and socio-economic status differences.
- We identified few structural indicators of autonomy. The proposed CRPD illustrative indicators relating to the right to legal capacity, to live independently, and to be included in the community for persons with disabilities is also highly relevant for older persons. The existing measure that concerns the existence of legislation for supported decision-making for people with dementia also provides a possible structural measure of autonomy.
- The existing indicators often measure autonomy with specific attention to older persons with disabilities, particularly with concern to the availability of supports to live independently and

²¹ Chirkov, V., Ryan, R. M., Kim, Y., & Kaplan, U. (2003). Differentiating autonomy from individualism and independence: a self-determination theory perspective on internalization of cultural orientations and well-being. *Journal of personality and social psychology*, 84(1), 97.

²² Ibid., 98

²³ Sherwin, S., & Winsby, M. (2011). A relational perspective on autonomy for older adults residing in nursing homes. *Health Expectations*, 14(2), 182-190.

satisfaction with the level of independence in their living arrangement. The indicator would apply to all living arrangements but data would need to be collected for those in a variety of arrangements, as people in institutional settings are at high risk for having limitations on their autonomy.

- The Relative Autonomy Index, which has been implemented in surveys in Bangladesh²⁴ and the Republic of Chad²⁵, builds directly from philosophical and psychological approaches to autonomy.^{26 27} The index aims to assess motivation behind decision making on different culturally relevant choices. For example, persons in Bangladesh are asked what they do if they had a serious health problem and then whether their actions with respect to this choice are motivated by a desire to: avoid punishment and gain reward; avoid blame or so that other people speak well of them; or if their decisions are motivated by and reflect their own values and or interests.²⁸ Motivational autonomy is identified when the respondent explains their decision as reflecting their own values and or interests. Thus, the key identification factor for autonomy concerns not the decision on healthcare or crops but whether that decision is motivated by the person's free will.
- The Relative Autonomy Index is well suited for intersectional analyses comparing, for instance, women and men's autonomous motivation.²⁹ The Index is also relevant for the full age spectrum. Thus, to identify the effect of age, it is necessary to compare the relative autonomy of older persons to younger persons within countries and to then report that ratio in cross-national comparisons. Alternatively, a relative autonomy measure that focuses on age specific domains could be developed and incorporated into ageing surveys. The age specific domains may include questions designed with universal applicability (i.e. questions on the freedom to determine what kind of tasks you will do on a particular day or what to do if you have a serious health problem). Research on the validity and reliability of universal measures would be necessary in different country contexts. If a universal measure of relative autonomy is problematic, studies could identify country specific choice domains that are aggregated into a universal framework which could then allow for cross-national comparisons, though this would be quite research intensive.³⁰ Considerable research is thus needed to develop and validate a cross-national measure of relative autonomy.

²⁴ Vaz, A., Alkire, S., Quisumbing, A. R., & Sraboni, E. (2019). Measuring Autonomy: Evidence from Bangladesh. *APSDJ*, 25, 21-51.

²⁵ <https://www.ophi.org.uk/wp-content/uploads/OPHIRP044a.pdf>

²⁶ Dworkin, G. (1988). *The theory and practice of autonomy*. New York: Cambridge University Press.

²⁷ Chirkov et al., (2003)

²⁸ Vaz, A., Alkire, S., Quisumbing, A. R., & Sraboni, E. (2019). p. 4

²⁹ <https://www.ophi.org.uk/wp-content/uploads/OPHIRP044a.pdf>

³⁰ See for example: Narayan-Parker, D., & Patel, R. (2000). *Voices of the poor: Can anyone hear us?* (Vol. 1). World Bank Publications.

Table 1. Select existing indicators of autonomy

Measure	Data type	Population	# countries	LAMIC	Level
Existence of legislation for supported decision-making for people with dementia ³¹	Structural	Persons with dementia	62	Yes	1
Legislation enacted that provides prompt and effective remedies to overturn and redress any restriction in law or in practice of an individual's legal capacity or failure to respect their decision-making on the basis of actual or perceived impairment. ³²	Structural	Persons with disabilities	N/A	N/A	3
Number of requests of procedural and age-appropriate accommodations in processes seeking restoration of legal capacity and proportion of them that have been granted and provided. ³³	Process	Persons with disabilities	N/A	N/A	3
Legislation enacted recognizing the right to live independently and be included in the community as an enforceable right of all persons with disabilities ensuring their individual autonomy and control over their life, regardless of impairment and required level of support. ³⁴	Structural	Persons with disabilities	N/A	N/A	3
Percent of long-stay nursing facility residents who are physically restrained on a daily basis. ³⁵	Process	Social care users	1	No	2
Budget allocated to measures aimed at ensuring the right of persons with disabilities to choose their living arrangements and access support services for living independently, and average amount spent per person as compared to amount spent per institutionalized person with disabilities.. ³⁶	Process	Persons with disabilities	N/A	N/A	3
Percentage satisfied with freedom to choose what you do with your life. ³⁷	Outcome	60+	96	Yes	1
Percentage of care service users reporting adequate control of their daily life. ³⁸	Outcome	Social care service users only	5	No	1
Number and proportion of adults with disabilities reporting satisfaction with their level of independence in their living arrangement, disaggregated by sex, age and disability. ³⁹	Outcome	Persons with disabilities	N/A	N/A	3
Measure of intra-household decision-making ⁴⁰	Outcome	50+	1	Yes	2
The Relative Autonomy Index ⁴¹	Outcome	18+	2	Yes	1

Note: Level 1: Indicator for which data are already being produced and reported on in at least some countries; Level 2: Indicator that can be produced with existing data but has not been reported on; Level 3: Indicator for which acquiring data is more complex or requires the development of data collection mechanisms which are currently not in place. N/A = Not applicable

³¹ <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/5033>

³² CRPD illustrative indicator #12.1

³³ CRPD illustrative indicator #12.6

³⁴ CRPD illustrative indicator #19.1

³⁵ Minimum Data Set 3.0

³⁶ CRPD illustrative indicator #19.21

³⁷ Global Age Watch International/Gallup Polling

³⁸ The Adult Social Care Outcomes Toolkit (ASCOT)

³⁹ Article 19 CRPD illustrative indicator #19.29

⁴⁰ <https://lasi-india.org/study-design>

⁴¹ Vaz, A., Pratley, P., & Alkire, S. (2016). Measuring women's autonomy in Chad using the relative autonomy index. *Feminist economics*, 22(1), 264-294.

4. Participation

Like autonomy, participation represents an additional outcome indicator of great relevance for older people that is frequently noted in international policy instruments, though with wide meanings.⁴² A complexity inherent to the measurement of participation is that there are numerous ways of participating and the extent to which these are valued by older persons can differ across cultures.⁴³ Though considerable differences likely exist cross-nationally, the participation patterns of older people are typically distinct from those relating to children or working-age adults. While both children and working-age adults participate in many other and varied domains, participation for these age groups generally is centered on schooling and employment respectively. For people who are older, participation can be more fluid – work (full or part-time), caregiving, civic engagement and leisure can all be viewed as valued forms of participation with no expectation that participation will occur in any one area. Lack of participation in any area is not necessarily an indicator of negative well-being, especially to the same extent as it would be for children or working age adults. Of course, all people, regardless of age participate in many different ways, and so indicators that conceptualize participation across these various modalities would be useful for everyone, and are of particular importance for older people. Nevertheless, the range of areas where participation can occur presents considerable measurement challenges.

The objective is to develop indicators that capture the full range of participation domains but do so without asking large numbers of questions. All persons further require the freedom to choose to participate or not to participate as they wish and thus indicators of participation should also aim to consider whether the motivation for participation is done autonomously or coercively.

The Active Ageing Index as a cross-national measure of participation

A notable international development related to the discussion of cross-national indicators of the participation of older persons is the notion of “active ageing.” Active ageing is defined by the WHO as “the process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.”⁴⁴ The WHO further defines “active” broadly as the “continuing participation in social, economic, cultural, spiritual, and civic affairs, not just the ability to be physically active or to participate in the labor force.”

The Active Ageing Index represents a cross-national indicator that addresses some aspects of participation of older persons in addition to other aspects of active aging. The index, which has been constructed uniformly in over 28 countries, provides a composite measure of twenty-two indicators grouped into four domains: employment; participation in society; independent, healthy and secure living; and capacity and enabling environment for active ageing.⁴⁵ Notably, the employment rate of older persons is conceived of as a separate domain from participation in

⁴² Dizon, L., Wiles, J., & Peiris-John, R. (2020). What is meaningful participation for older People? An analysis of aging policies. *The Gerontologist*, 60(3), 396-405.

⁴³ Au, D. W., Woo, J., & Zaidi, A. (2021). Extending the active ageing index to Hong Kong using a mixed-method approach: Feasibility and initial results. *Journal of Population Ageing*, 14(1), 53-68.

⁴⁴ <https://extranet.who.int/agefriendlyworld/wp-content/uploads/2014/06/WHO-Active-Ageing-Framework.pdf>

⁴⁵ Zaidi, A., Harper, S., Howse, K., Lamura, G., & Perek-Bialas, J. (Eds.). (2018). *Building evidence for active ageing policies: Active Ageing Index and its potential*. Springer.

society. The index also incorporates measures related to some of the aspects of an expansive notion of autonomy noted above. For example, the independent, healthy and secure living domains includes measures of independent living, poverty risk, and material deprivation. Importantly, as will be discussed below, the index does not include questions on motivations underlying participation.

Unpaid work in the form of caregiving to a spouse or family member represents an important form of participation incorporated into the Active Ageing Index. This is noteworthy as this form of unpaid participation has historically received less attention relative to paid employment. The Active Ageing Index captures two dimensions of care: the proportion of older adults providing care to children and grandchildren and the share providing care to older adults. Issues with using these indicators as outcome measures relating to the work of providing care, are that some older persons, particularly women, may provide care due to external pressures and not through their autonomous choosing. It is also assumed that care is needed. These measures, as constructed, are thus unable to detect whether the care provided is meaningful to the older person or whether the participation is imposed upon them by way of social, political, or financial pressures.

Political and civic engagement of older persons represents another important form of participation also captured in the index.⁴⁶ Specifically, it assesses the percentage of population aged 55 and older taking part in the activities of a trade union, a political party or a political action group, as well as those who report signing a petition or contacting a political figure over the last 12 months.⁴⁷ These measures provide important insights into the civic engagement of older persons and their inclusion in civil conversations and policy making. However, like the caregiving measures, they do not assess the willingness of older persons to engage in these political activities.

Limitations and criticisms of the Active Ageing Index

While the index was originally constructed for 28 European Union (EU) countries, a number of non-EU countries have adopted or are currently creating the index.^{48 49} The chief challenge regarding this expansion to LAMIC concerns the availability of statistical data on the measures incorporated into the index. There is also a need to validate the measures in different social, political, and economic contexts. Specific attention is required for how to weight the different forms of participation within the composite measures. That is, in combining various forms of participation to get an overall measure, difficult questions must be answered as to whether each domain of participation receives equal weight or if some are more important than others. While a number of suggestions for expanding the index to LAMIC countries have been suggested,⁵⁰ considerable effort would be required to construct the index in LAMIC countries.

⁴⁶ Serrat, R., Scharf, T., Villar, F., & Gómez, C. (2020). Fifty-five years of research into older people's civic participation: Recent trends, future directions. *The Gerontologist*, 60(1), e38-e51.

⁴⁷ [https://unece.org/population/publications/active-ageing-index-analytical-report#:~:text=Active%20Ageing%20Index%20Analytical%20Report%20\(ECE/WG.1/33\).](https://unece.org/population/publications/active-ageing-index-analytical-report#:~:text=Active%20Ageing%20Index%20Analytical%20Report%20(ECE/WG.1/33).)

⁴⁸ Um, J., Zaidi, A., & Choi, S. J. (2019). Active ageing index in Korea—comparison with China and EU countries. *Asian Social Work and Policy Review*, 13(1), 87-99.

⁴⁹ Formosa, M. (2017). Responding to the Active Ageing Index: Innovations in active ageing policies in Malta. *Journal of Population Ageing*, 10(1), 87-99.

⁵⁰ https://unece.org/DAM/pau/age/Active_Ageing_Index/AAI_Guidelines_final.pdf

Leaving these data collection issues aside, the Active Ageing Index has been subject to several substantive criticisms.⁵¹ Notably, the index provides no means to measure whether the participation of the older person is desired. In other words, the index cannot inform policy makers whether the domain of participation, such as working in older age or caring for a grandchild, both of which are activities weighted positively in the index, are willfully engaged forms of participation rather than actions forced upon the person or whether non-participation is due to the lack of need for either caregiving services or income generation. It thus positively weights activity without examining whether that activity adds to the well-being of older persons. In addition, it does not provide an acceptance for older persons who may prefer leisure instead of activity.⁵²

To these criticisms, the developers of the index concede that “the AAI measures the ‘degree of active ageing’ achieved at the macro level in the indicated domains, it is not constructed to capture preferences or aspirations at the individual level.”⁵³ They further suggest the potential for mismatch between these macro and micro spheres should warrant caution among policy makers. They thus call for person-centered research on the indicators to identify where any such mismatch may exist and where improvements in the construction of the index can occur. While such research is warranted and has progressed in some countries,⁵⁴ one must also consider whether alternative micro and macro level indicators of participation that directly reflect the willful and meaningful participation of older persons could themselves be constructed and perhaps integrated into the index. Finally, a composite measure of participation, such as the Active Ageing Index, adds multiple layers of complexity to the analysis of participation.⁵⁵ It may thus be preferable for cross-national purposes to develop less complicated, domain specific indicators of participation that are more easily measured and with particular attention to the challenges of data collection in LAMIC countries. This would be especially useful if barriers to particular components of the AAI were different in different countries.

Select existing indicators of participation

In table 2, we provide a sample of selected indicators of participation. We identified these indicators through the same analysis as described above concerning autonomy and again we do not present these results as a systematic review of indicators of participation or an endorsement of these indicators but a selection of relevant measures. We form the following conclusions:

- The Active Ageing Index includes measures for assessing participation cross-nationally. However, it has a number of limitations: (a) it does not assess whether the activity measured is done out of the motivational autonomy of the older person or rather because of external societal motivations; (b) it includes items that might not be relevant to the

⁵¹ De São José, J. M., Timonen, V., Amado, C. A. F., & Santos, S. P. (2017). A critique of the Active Ageing Index. *Journal of Aging Studies*, 40, 49-56.

⁵² IBID p.52

⁵³ http://www.unece.org/DAM/pau/age/Active_Ageing_Index/ECE-WG-33.pdf (p. 60)

⁵⁴ Au, D. W., Woo, J., & Zaidi, A. (2021). Extending the active ageing index to Hong Kong using a mixed-method approach: Feasibility and initial results. *Journal of Population Ageing*, 14(1), 53-68.

⁵⁵ De São José, J. M., Timonen, V., Amado, C. A. F., & Santos, S. P. (2017). A critique of the Active Ageing Index. *Journal of Aging Studies*, 40, 49-56.

individual; (c) it has not been widely extended to LAMIC countries and as a composite measure it is quite complex and data intensive making it challenging to do so; (d) theoretically it captures the notion of active ageing which, as a multidimensional concept, is different from directly accessing participation; and (e) it does not assess barriers in the environment that impede participation, which would represent highly useful data for policy makers.

- Participation measures constructed to monitor the implementation of the CRPD would have high relevance for older persons and could be disaggregated by age in order to monitor age specific participation patterns.
- Information on the labor force participation rates of older people worldwide is available. Additional participation information on other domains are also likely available across multiple countries. However, to our knowledge there is not an internationally comparable measure of caregiving or political participation that is disaggregated for older persons and available for LAMIC countries.

Table 2. Select existing indicators of participation

	Data type	Population	# countries	LAMIC included	Level
Voter turnout disaggregated by sex, age, disability and electoral district for national, regional and local elections. ⁵⁶	Outcome	Voting age	N/A	N/A	2
Number and proportion of persons with disabilities accessing museums, galleries, libraries and cultural sites, as compared to other persons, disaggregated by sex, age and disability. ⁵⁷	Outcome	People with disabilities	N/A	N/A	2
Proportion of the population aged 55-64 that are employed ⁵⁸	Outcome	55-64	96	Yes	1
The Active Ageing Index	Outcome	60+	28 +	No	1
“Are you usually involved in the following household activities? Cooking, shopping, payment of bills and settling of financial matters, taking care of household chores, giving advice to the children, settling disputes” ⁵⁹	Outcome	50+	1	Yes	2

Note: Level 1: Indicator for which data are already being produced and reported on in at least some countries; Level 2: Indicator that can be produced with existing data but has not been reported on; Level 3: Indicator for which acquiring data is more complex or requires the development of data collection mechanisms which are currently not in place. N/A = Not applicable

⁵⁶ CRPD Illustrative indicator 29.27

⁵⁷ CRPD Illustrative indicator 30.22

⁵⁸ <http://www.helpage.org/download/563caf64d0b45>

⁵⁹ <https://lasi-india.org/study-design>

5. Environmental factors that impact participation

Identifying outcome measures for participation requires careful consideration of the domains of participation that are assessed. However, from the perspective of policy makers, this information may be less useful when not accompanied by measures identifying the specific environmental factors impeding participation (and also autonomy and contribution). For example, it would be useful for a country with a low participation level to understand the kinds of environmental barriers older persons may experience in participating, such as the lack of accessible transportation or the experience of employment discrimination.

As currently constructed, the Active Ageing Index measures the “capacity and enabling environment,” in the form of life expectancy and healthy life expectancy, mental well-being, internet access, social connectedness, and educational attainment. It also measures the older person’s consideration of their physical safety, access to lifelong learning, access to health care, and their poverty risk. While these measures provide useful contextual information on some aspects of the environment, there are limitations. The inclusion of mental well-being, life expectancy, and healthy life expectancy provide important information on the environmental context, but they do not provide information on the environmental factors that produce these contexts. Indicators that directly assess barriers in the environment that impede participation are not included. Yet, information on barriers would directly inform policy actions by helping policy makers identify the supports older people need to participate, such as access to assistive technologies, personal assistance, or changes to infrastructure and the built environment that improve accessibility.

The International Classification of Functioning, Disability and Health (ICF) recognizes that environmental barriers are critical for evaluating any person’s opportunities to participate and thus conceptualizes a person’s level of functioning as “a dynamic interaction between her or his health conditions, environmental factors, and personal factors.” Environmental factors are further defined as “the physical, social and attitudinal environment in which people live and conduct their lives.”⁶⁰

In general, there is limited cross-national data on environmental barriers to participation, though within countries a number of relevant survey indicators exist.⁶¹ These indicators commonly examine barriers in terms of building structures, roadways and sidewalks, modes of transportation, and the attitudes of others. In considering the development of cross-national indicators of environmental barriers experienced by people with disabilities, Altman and Meltzer recommend examining environmental factors in three primary areas of daily activities: “maintaining a home, using transportation, and using community resources (such as shopping areas, libraries and museums or accessing government services).” They further recommend that statisticians develop country-specific measures of the barriers older persons experience accessing these daily activities and then aggregate that information into a generalizable framework that allows for the cross-national comparability of these barriers.

⁶⁰ https://www.cdc.gov/nchs/data/icd/icfoverview_finalforwho10sept.pdf

⁶¹ Altman, B. M. (Ed.). (2016). *International measurement of disability: purpose, method and application* (Vol. 61). Springer.

Though indicators measuring environmental factors do not provide direct data on participation per se, they are important measures of the barriers and facilitators that impact participation. For example, one outcome measure of participation may quantify the frequency in which older persons leave their home. An environmental factor, on the other hand, may quantify the percent of older persons reporting the lack of personal help or assistance that prevents them from leaving their home. While the former indicator provides useful awareness raising information about the participation of older persons, the latter provides policy makers with directly actionable information in which to intervene. Moreover, learning about what prevents older persons from participating is a useful indicator of their participation preferences and the fact that they wanted to do that activity, while knowing that the older person did not do an activity does not tell you whether they were prevented from doing it or simply did not want to do the activity. The challenge in constructing such environmental indicators, however, is that the list of environmental barriers that can make it difficult for a person to leave their home, access transportation, or utilize community resources is quite large and complex.

Examples of structural indicators of environmental barriers could assess the adoption of laws protecting older persons from discrimination and the presence of law guaranteeing the right to live in an accessible physical environment in the community setting. Process indicators may assess the extent to which anti-discrimination laws are implemented and the budget allocated to community supports and services that assists older persons with living in the community. Indicators relating to the subjective experience of age discrimination could also provide an outcome measure.

Select existing indicators of environmental barriers

We further searched for existing measures of environmental barriers to participation which we put in Table 3. We form the following conclusions:

- Relevant structural measures of environmental barriers are available, including the existence of legislation that prohibits discrimination based on age. Many other structural indicators used to monitor the CRPD and laws ensuring accessibility and accommodations could also be useful for older persons.
- Survey questions seeking to identify the specific environmental barriers that older persons and people with disabilities experience are available in select surveys but in general remain sparse. These survey measures, if constructed well, could provide the most actionable information for policy makers.
- Satisfaction surveys provide a means to measure environmental barriers such as with the transportation system or in terms of street safety. However, research is required to establish their validity and reliability across countries. These kinds of indicators also do not provide directly actionable information but may be helpful to bring awareness to problems.

Table 3. Select existing indicators of environmental barriers to participation

	Data type	Population	# countries	LAMIC included	Level
Does legislation prohibit discrimination at work based on age? ⁶²	Structural	N/A	193	Yes	1
Does legislation explicitly prohibit discrimination in promotions and/or demotions on the basis of age? ⁶³	Structural	N/A	193	Yes	1
“Thinking of your home situation do problems with any of these things on the list now limit or prevent your participation in home activities or household responsibilities? Yes/No.” ⁶⁴	Outcome	18+	1	No	2
Percentage of people aged 50-plus who are satisfied with the public transportation systems ⁶⁵	Outcome	50+	96	Yes	1
Percentage of people aged 50-plus who feel safe walking alone at night in the city or area where you live. ⁶⁶	Outcome	50 +	96	Yes	1
Did you vote in the last elections? (yes/no) If no, why did you not vote? (1. Not registered as a voter 2. Inability to move/walk 3. Disenchanted with political parties/ candidates 4. Scared to go out on an election day 5. Didn't have time/was busy, Other, please specify) ⁶⁷	Outcome	50 +	1	Yes	2

Note: Level 1: Indicator for which data are already being produced and reported on in at least some countries; Level 2: Indicator that can be produced with existing data but has not been reported on; Level 3: Indicator for which acquiring data is more complex or requires the development of data collection mechanisms which are currently not in place. N/A = Not applicable

6. Contribution

Related to the concept of participation, and difficult to distinguish from it, is the notion of contribution. Contribution as an outcome indicator can be conceived in both collectivist and individualist terms. The collectivist notion refers to the net product, typically financial but also social and political, produced through the participation of older persons in society. It was recently estimated, for example, that adults in the US age 50 and older provide an economic contribution of \$8.3 trillion which is projected to grow to \$28.2 trillion by 2050.⁶⁸ This estimate is produced by quantifying data on the economic spending, tax contributions, labor force productivity, volunteering, and caregiving output of older persons. This collectivist notion of

⁶² <https://www.worldpolicycenter.org/topics/aging/policies>

⁶³ <https://www.worldpolicycenter.org/topics/aging/policies>

⁶⁴ 2002 National Health Interview Survey. Cited in Altman (2016)

⁶⁵ <http://www.helppage.org/download/563caf64d0b45>

⁶⁶ <http://www.helppage.org/download/563caf64d0b45>

⁶⁷ <https://lasi-india.org/study-design>

⁶⁸ https://longevityeconomy.aarp.org/?cmp=EMC-DSM-NLC-LC-HOMFAM-20200129_LivableCommunities_899300_1269401-012920-F1-Longevity-CTA_Button-CTRL-4330516&encparam=L%2bZlhowiw4r5NBERDuVze8kLaFizIdheaqx117cOe3I%3d

contribution is commonly referenced. The UN General Assembly adopted a resolution, for instance, “recognizing the elderly are an asset to society and can contribute significantly to the development process.”⁶⁹

Problems with a collectivist notion of contribution

The collective notion of contribution can provide a useful means to counter negative narratives regarding older persons and promote the positive impacts older people have on society. It may thus be useful for such measures to be carefully constructed within countries for these purposes. However, we suggest a high degree of caution in developing comparable indicators of the collective contribution of older persons. Such an estimate of the contribution of older people would not directly reflect the well-being of older persons and could display a productivity bias. Akin to the criticisms of the Active Ageing Index, a collectivist notion of contribution places a positive value on economically relevant actions. This may create circumstances in which older people who are not contributing in some economically relevant way, perhaps because of functional limitation or for a preference for leisure, are viewed as of less worth. Along the same lines, in a country where the collectivist contribution of older people is not assessed as relatively high, this may fuel discrimination and ageism of older people in that country. Furthermore, if older persons choose to not participate in economically valuable forms of participation or are incapable of doing so, then placing values on the lack of participating violates autonomy.

An individualist notion of contribution as an alternative

A second notion of contribution concerns an individualist notion of contribution. Here contribution is not defined as the collective output of older people to society but rather as the individual’s “sense of contribution or self-worth.” This sense of contribution is formed through autonomous engagement in meaningful participation. An individualist notion of contribution thus requires the subjective evaluation of the older person to determine their contribution.

Existing measures of subjective well-being may identify aspects of this individualist notion of contribution. The Organisation for Economic Co-operation and Development (OECD) defines subjective well-being as “good mental states, including all of the various evaluations, positive and negative, that people make of their lives and the affective reactions of people to their experiences.”⁷⁰ Subjective well-being thus incorporates reflection on the person’s whole life (life evaluation), including their feelings relating to their realization of potential (eudaimonia), and their emotional states while engaged in specific activities or during different times of their life (affect). For the purposes of measuring an older person’s sense of contribution, all three types of subjective well-being measures may be relevant, though reflection on the realization of one’s potential and on their emotional state when engaged in certain participation domains, such as work, political involvement, or caregiving, appear the most applicable.

⁶⁹<https://undocs.org/A/RES/45/106>

⁷⁰ https://read.oecd-ilibrary.org/economics/oecd-guidelines-on-measuring-subjective-well-being_9789264191655-en#page12

Subjective well-being measures and an older person's sense of contribution

An increasing body of research has identified that subjective measures of well-being can be developed with validity and inform policy research.⁷¹ The *Report by the Commission on the Measurement of Economic Performance and Social Progress* concluded, for example, that, “Measures of both objective and subjective well-being provide key information about people’s quality of life. Statistical offices should incorporate questions to capture people’s life evaluations, hedonic experiences and priorities in their own survey.”⁷² The OECD further argues that subjective well-being measures can be useful in complementing other outcome measures, help to understand the drivers of subjective well-being, support policy evaluation especially in terms of non-market outcomes, and further help to identify policy problems.

There are, of course, considerable methodological challenges related to the development of reliable cross-national subjective well-being measures. The OECD has created a report on the subject that touches on many of these issues, including question construction, response formats, response styles and cultural contexts.⁷³ We wish to highlight here the cultural challenges as they deal specifically with cross-national comparisons. What it means to feel a sense of contribution may differ substantially internationally and particularly across wealthy and poor countries – and even by gender, ethnicity or other characteristics. This may occur as a result of a “frame-of-reference bias,” in which, for example, “rural or more isolated households may overstate their welfare given that they have a limited experience or exposure to higher living standard with which to judge their own economic standing.”⁷⁴ There are also cultural differences in willingness to report negative evaluations. Many ways in which to deal with this bias have been developed, including vignette-based studies, using migrant data, comparisons of life evaluations, fixed effects models, and counterfactuals.⁷⁵ An analysis of these approaches at correcting for this bias is beyond the scope of this paper. However, future research on this topic would be critical if this approach were adopted. Such research could further examine the reliability and validity of subjective well-being measures for older persons as it relates to specific participation domains, including work, caregiving, and volunteering.

Select existing indicators of an individualistic notion of contribution

In table 4, we provide illustrative examples of select indicators that relate to the individualized sense of contribution and self-worth. From this analysis we form the following conclusions:

- There are numerous subjective well-being indicators some of which are designed for older persons and others that are instrumented for all ages. For those provided for all ages, the data would need to be disaggregated by age to identify the well-being of older

⁷¹ Odermatt, Reto and Stutzer, Alois, Subjective Well-Being and Public Policy. Available at SSRN: <https://ssrn.com/abstract=3069445> or <http://dx.doi.org/10.2139/ssrn.3069445>

⁷² <https://ec.europa.eu/eurostat/documents/8131721/8131772/Stiglitz-Sen-Fitoussi-Commission-report.pdf>

⁷³ https://read.oecd-ilibrary.org/economics/oecd-guidelines-on-measuring-subjective-well-being_9789264191655-en#page12

⁷⁴ Beegle, K., Himelein, K., & Ravallion, M. (2012). Frame-of-reference bias in subjective welfare. *Journal of Economic Behavior & Organization*, 81(2), 556-570.

⁷⁵ https://read.oecd-ilibrary.org/economics/oecd-guidelines-on-measuring-subjective-well-being_9789264191655-en#page211

persons relative to younger persons. Developing these measures for use cross-nationally poses a particular challenge. Currently there is limited cross-national data on the subjective well-being of older persons available.

- Subjective well-being measures that seek to capture the sense of contribution do not provide direct information that can be used for policy action, as policy makers would need to understand the wide variety of components that shape a person's subjective well-being to identify policy actions.⁷⁶ They could thus be used as complementary indicators to other participation domains that identify the extent to which participation is acted on autonomously and whether participating brings meaning to the older person.
- Measures of the sense of contribution that relate directly to participation domains, such as work, care, and civic participation, may suitably complement the collection of participation measures. For example, in the Longitudinal Ageing Study on India, older persons engaging in care work are asked how that activity makes them feel. The Meaningful Activity Participation Assessment provides a similar question framework that has yet to be tested in the LAMIC context. Older persons are asked to rate the amount of time spent on various activities and then instructed to rate the meaningfulness of each activity on a Likert scale from not at all meaningful to extremely meaningful.
- There are numerous other indicators which connect more to life satisfaction and happiness than to specific feelings of engaging in participation domains. These include the WHO subjective well-being index, which has been widely tested internationally but is rather loosely connected to a sense of contribution.⁷⁷

⁷⁶ See for example: Kieny, C., Flores, G., Ingenhaag, M., & Maurer, J. (2020). Healthy, wealthy, wise, and happy? Assessing age differences in evaluative and emotional well-being among mature adults from five low-and middle-income countries. *Social Indicators Research*, 1-32.

⁷⁷ Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: a systematic review of the literature. *Psychotherapy and psychosomatics*, 84(3), 167-176.

Table 4. Select existing measures of a sense of contribution or self-worth

Measure	Data type	Population	# countries	LAMIC included	Level
“Do you take care of any of your family members who are unable to carry out their basic daily activities?” If yes: Does providing help to (care recipient) make you feel (a) more needed, (b) good about yourself, (c) feel restricted” ⁷⁸	Outcome	50+	1	Yes	2
Meaningful activity participation measure ⁷⁹	Outcome	65+	1	No	2
World Health Organization Well-Being Index ⁸⁰	Outcome	9 +	20 +	Yes	1
Global life evaluation measure ⁸¹	Outcome	18 +	155	Yes	1
Mattering index ^{82 83}	Outcome	18 +	1	No	3

Note: Level 1: Indicator for which data are already being produced and reported on in at least some countries; Level 2: Indicator that can be produced with existing data but has not been reported on; Level 3: Indicator for which acquiring data is more complex or requires the development of data collection mechanisms which are currently not in place. N/A = Not applicable

7. A model of the autonomy, participation, and contribution of older people

In Figure 1, we present a simplified biopsychosocial pathway model that follows the biopsychosocial model of disability as used as the framework for the ICF. The model illustrates our understanding of the three outcome domains and their relationships and builds from the discussion above. It is based on the following premises:

- Personal factors include the older person’s ethnicity, gender, sexual orientation, age, as well as their individual motivations, preferences, and desires. These personal factors can directly lead to environmental barriers, such as job discrimination and restrictions on legal rights, that impact the ability of the older person to achieve autonomy and participate in the full range of activities in which they wish to partake.
- As we age, health issues can also develop which, in turn, may result in functional limitations. However, like personal factors, whether functional factors inhibit autonomy and participation is dependent on environmental factors, such as the accessibility of the physical environment or access to assistive technologies and supportive decision-making assistance. With access to these supports, the older person with a functional limitation can fulfill their right to autonomy and participation.

⁷⁸ <https://lasi-india.org/study-design>

⁷⁹ Eakman, A. M., Carlson, M. E., & Clark, F. A. (2010). The meaningful activity participation assessment: A measure of engagement in personally valued activities. *The International Journal of Aging and Human Development*, 70(4), 299-317.

⁸⁰ <https://www.who.int/tools/whoqol>

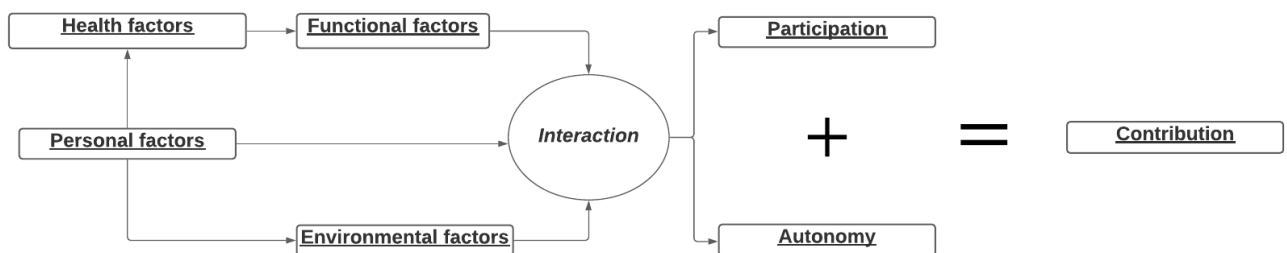
⁸¹ Tay, L., & Diener, E. (2011). Needs and subjective well-being around the world. *Journal of personality and social psychology*, 101(2), 354.

⁸² Elliott, G., Kao, S., & Grant, A. M. (2004). Mattering: Empirical validation of a social-psychological concept. *Self and Identity*, 3(4), 339-354.

⁸³ Flett, G. (2018). *The psychology of mattering: Understanding the human need to be significant*. Academic Press.

- We apply a narrow definition of autonomy as the decision-making space that exists for older persons to make choices that accord with their free-will and self-interests. Autonomy is also viewed in the relative sense which recognizes that social elements are embedded in an older person's choices. This includes using the support of others to maximize an older person's autonomy. It also includes attention to whether the decision made by the older person is coerced or whether it reflects their free will and is thus consistent with autonomy. As with participation, we model autonomy as resulting from the interaction between functioning and the environment.
- Central to the model is the notion that only when combined with autonomy can participation result in a sense of contribution. If participation is performed without autonomy (i.e. when an older person is forced to work later in life or to provide care against one's will), then it cannot lead to a sense of contribution, which reflects the person's engagement in meaningful participation and subjective sense of well-being.

Figure 1. A bio-psychosocial model of autonomy, participation, and contribution of older people



8. Overall recommendations of the “think-piece”

1. Cross-national measures of autonomy are underdeveloped and deserve greater attention

- Autonomy should be viewed as an anchoring concept that is vital for the achievement of meaningful participation and a sense of contribution. Yet, compared to indicators of participation and contribution, there are few cross-national measures of autonomy as they relate to older persons.
- Greater attention is needed to consider whether an expansive definition of autonomy is theoretically necessary and the most appropriate for developing internationally comparable indicators. From a measurement perspective, we think a narrow definition of autonomy focusing on the decision-making space is the most suitable. While the choice sets available to older persons are of great importance, these elements should be captured in separate measures, such as those monitoring poverty and environmental barriers to participation.

- A relative measure of autonomy is preferable over an individualized version as it assesses whether decisions are made based on the person's free will and are suitable for sub-analyses across gender and other intersectional identities. The development of a universal measure of relative autonomy for older persons would provide a useful means to evaluate autonomy cross-nationally but would require considerable research to construct in a valid and reliable manner.

2. Participation measures should expand to LAMIC countries

- Though the Active Ageing Index provides a solid foundation from which to consider the participation of older people, it is not without its limitations and has yet to be expanded into LAMIC countries. We recommend developing simpler participation indicators, including structural, process, and outcome indicators, on key domains, such as work, caregiving, civic participation and leisure, which will be useful for country comparisons and more easily expanded to LAMIC countries.
- Indicators of participation should be supplemented with indicators of environmental factors. Such indicators will be critical for identifying policy levers. These indicators should include information about the actual barriers to participation that are (or can be) experienced by the person in the environmental context they either actually use or may want to use.

3. Contribution should be viewed individualistically and considered as a measure of meaningful participation

- Contribution should be viewed individually and not collectively for the purposes of developing cross-national indicators. The construction of cross-national measures of the collective contribution of older persons is theoretically problematic and could unintentionally fuel ageism.
- Taking an individualist approach, contribution can be understood as an older person's sense of contribution or self-worth, which occurs as a result of meaningful participation. One option is the construction of cross-national measures of subjective well-being. These measures cannot provide a direct means for policy action but may be complementary to other measures of autonomy and participation.