## Systems thinking in COVID-19 recovery is urgently needed to deliver sustainable development for women and girls



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In low-income and middle-income countries, such as those in sub-Saharan Africa and Latin America, the COVID-19 pandemic has had substantial implications for women's wellbeing. Policy responses to the COVID-19 pandemic have highlighted the gendered aspect of pandemics; however, addressing the gendered implications of the COVID-19 pandemic comprehensively and effectively requires a planetary health perspective that embraces systems thinking to inequalities. This Viewpoint is based on collective reflections from research done by the authors on COVID-19 responses by international and regional organisations, and national governments, in Latin America and sub-Saharan Africa between June, 2020, and June, 2021. A range of international and regional actors have made important policy recommendations to address the gendered implications of the COVID-19 pandemic on women's health and wellbeing since the start of the pandemic. However, national-level policy responses to the COVID-19 pandemic have been partial and inconsistent with regards to gender in both sub-Saharan Africa and Latin America, largely failing to recognise the multiple drivers of gendered health inequalities. This Viewpoint proposes that addressing the effects of the COVID-19 pandemic on women in low-income and middle-income countries should adopt a systems thinking approach and be informed by the question of who is affected as opposed to who is infected. In adopting the systems thinking approach, responses will be more able to recognise and address the direct gendered effects of the pandemic and those that emerge indirectly through a combination of long-standing structural inequalities and gendered responses to the pandemic.

### Introduction

The effects of the COVID-19 pandemic have been experienced differently globally, regionally, and within countries. Rather than equalising societies, the COVID-19 pandemic has exacerbated existing inequalities on an unprecedented scale.1 The effect of the pandemic on vulnerable people is already, and will continue to be, devastating, especially in regions with particularly challenging economic landscapes, such as in Latin America, which has the highest levels of inequalities globally, and in sub-Saharan Africa, which has the highest levels of poverty.2 The UN stated that just 25 weeks of the pandemic derailed 25 years of human development.3 In October, 2020, the World Bank estimated that between 88 million and 115 million people had fallen into extreme poverty in 2020; by January, 2021, this figure increased to 119-124 million people globally, with the largest proportion increases in low-income and middle-income countries (LMICs).4 Projections of the performance of different development indicators show the seriousness of the situation. The 2021 State of Food Security and Nutrition Report indicated that the proportion of people experiencing undernourishment had increased from 8.4% between 2014 and 2018 to 9.9%in 2019-20.5 Furthermore, the number of people facing hunger in 2020 increased by 118 million, representing a 3% increase from 2019.5

These type of development losses are not just a consequence of the COVID-19 pandemic and its accompanying global economic slow-down. The fact that the pandemic affected weak, underfunded, and capacitystretched health systems exacerbates the scale of the problem in LMICs.6 Disparities in health spending between high-income countries and LMICs before the COVID-19 pandemic were stark. Sub-Saharan African countries spent approximately US\$70 per capita on health care compared with \$442 in China and \$3040 in the EU, with per capita hospital-based care spending in sub-Saharan Africa being as low as \$20.7 In Latin America, only 2.2% of regional Gross Domestic Product in 2018 was spent on health systems.8 Furthermore, health service provision across Latin America is fragmented, with stark inequalities between social groups who are served by different types of health services, leaving the poorest populations without adequate access to health care.8,9

However, the COVID-19 pandemic is not only a threat to development, but also to gender equality. Development is gendered, and just as in non-crisis times, the effects from poverty and hunger caused by the COVID-19 policy response have disproportionately affected women and girls. The economic slowdown that resulted from the pandemic had greater effects on women's employment and income, since the greatest drops in activity were in sectors that had a majority female workforce.10 Due to the COVID-19 pandemic in 2020, women were more likely to be food-insecure than men.5 Women and girls have been affected the most by the socioeconomic effects of the measures taken to manage COVID-19 infection, especially those whose intersectional characteristics leave them discriminated against, in policy and in society.11-14 Lockdowns have led to increases in domestic violence and femicide,15 and although all women are at risk of gender-based violence, women of poorer backgrounds have less resources to flee violent homes, whereas women who are older, disabled, migrant, Indigenous, Black, or minority ethnic are less likely to have access to protection services or obtain justice.11 Social distancing measures have put more women and girls out of paid work and education in comparison to their male counterparts due to gendered factors, such as prioritising



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boys' education or forcing girls into child or early marriages. <sup>14</sup> Threats to women's paid work and education are accompanied by an increase in their proportion of unpaid labour in care and social reproduction. <sup>12,13</sup> Gendered inequalities such as these affect women and girls everywhere but their consequences are particularly acute in LMICs where systems of protection and welfare are weaker.

The Sustainable Development Goals (SDGs) for 2030 are clearly under threat. Getting global development back on track will require policies that direct spending towards empowering and supporting those most severely affected by COVID-19 policies, including supporting women and girls who face discrimination in multiple forms. A failure to do so risks deepening the already unacceptable inequalities and condemning new generations of women and girls to poverty and poor wellbeing. Yet, achieving sustainable development, particularly for women and girls, will require confronting the complexities of the social, ecological, political, and economic systems of development. In this Viewpoint, we reflect on lessons from an interdisciplinary research project, initiated in June, 2020, on gender and COVID-19 policies in Latin America and sub-Saharan Africa to highlight lessons for future policy. We conclude that responses to the COVID-19 pandemic in these two regions should adopt systems thinking approaches to designing and implementing COVID-19 responses to better address the gendered effects of the pandemic.

Systems thinking is concerned with complex systems, the relationship between parts of these systems, and their contribution to the operation of the whole system.<sup>16</sup> The application of systems thinking to sustainable development recognises the dependencies between the different development goals and the complex systems that control the different components of these goals, which demand cooperation across sectors and institutions.17 Women are a particularly important part of sustainable development, and systems thinking enables development planners to consider the root causes of why women and girls do not benefit from development.18,19 Systems thinking in relation to the gendered effects of the COVID-19 pandemic would consider the direct links between the costs of the COVID-19 pandemic to women and girls as a factor of the social, economic, and political systems in order to mitigate them.20,21 This approach leverages interdisciplinarity and actively considers gender inequalities as intersectional and as requiring a multistakeholder approach in the identification of inequalities (and their root causes) that are accentuated by the COVID-19 pandemic.22 COVID-19 responses that integrate systems thinking anticipate and avoid unintended consequences from response actions.23

We use systems thinking to reflect on COVID-19 responses discussed in this Viewpoint. We draw from lessons emerging from research done by the authors between June, 2020, and June, 2021, which focused on

understanding COVID-19 responses by international, regional, and national organisations, donors, and governments in Latin America and sub-Saharan Africa. The research had a combination of documentary analysis and interviews, which included civil society organisations, to understand the extent to which responses to the COVID-19 pandemic are gendered and whether the effect on women—especially women made vulnerable by poverty or other markers of social exclusion, such as race or ethnicity—have been considered. We reflect on whether international, regional, and national policy recommendations and responses to the pandemic considered and addressed, or exacerbated, the root causes of vulnerability to the COVID-19 pandemic and its shortterm and long-term socioeconomic effects. Although we do not use the primary data generated from the research, the data from the project have directly informed the direction of our thoughts.

Although policy recommendations by international, regional, and civil society organisations have so far displayed an awareness of gender inequalities in their policy recommendations (compared with previous crises), national-level responses in both sub-Saharan Africa and Latin America in relation to gender have been less integrated and inconsistent. Overall, responses to the COVID-19 pandemic in both Latin America and sub-Saharan Africa, and policy recommendations to governments seeking to mitigate the effects of the COVID-19 pandemic on women and girls, have tended to adopt a linear approach and have overlooked and oversimplified the complex interactions between other drivers within systems of development. We show this absence of systems thinking by focusing on women's health with respect to the effect of debt and austerity on COVID-19 responses and its implications for health service provision for women.<sup>24,25</sup> As the COVID-19 pandemic continues to devastate communities in both regions, moving towards a more effective response and ultimately recovering from the pandemic will require governments and international organisations to adopt integrated systems thinking that understands, addresses, and promotes policy responses that make visible and address gender inequalities in COVID-19 responses at all levels. We recommend that COVID-19 responses in Latin America and sub-Saharan Africa be framed by questions of who is affected as opposed to who is infected.26

The following section highlights how gender has been framed in COVID-19 responses across the two regions. We show that international and regional organisations recognised the intersectionality of gender and reflected systems thinking. However, responses to COVID-19 at the national level tended to focus exclusively on those who were infected. Underpinning these national responses is a lack of consideration of how macroeconomic conditions created by development lags and inequities, such as the accumulation of external debt before and during the

pandemic, act as root drivers of austerity, shaping national responses in ways that determine different outcomes for different gendered groups, particularly women and girls.

# Gendered inequalities are deepened by COVID-19 policy responses

The gendered effects of the COVID-19 pandemic are striking. Although men are at greater risk of serious illness and death once infected, women and girls are affected by policy responses to the COVID-19 pandemic in uniquely gendered ways because of their biological and social roles. Reproductive and sexual health services in LMICs are put at risk in health crises in already weak health systems. Evidence from previous crises show that sexual and reproductive health services can be sacrificed in such times. 27,28 The 2013 Ebola virus outbreak in west Africa and the global COVID-19 pandemic have showed that women are more likely to be directly infected due to their roles as health-care formal service providers and as primary caregivers at home.29-31 The physical and emotional challenges of care provision and its overall undervaluation can lead to depletion, which is experienced through the costs incurred by women and girls from carrying out social reproductive work.32 Gendered depletion from social reproduction intensifies in times of crisis and the level of harm caused differs depending on gender, geopolitics, and class.33,34 Addressing gendered depletion accumulated from intense and largely unrewarded care work during the pandemic will be one of the most urgent challenges governments will face after the pandemic. Cutbacks in supply chains of contraceptives, closures of reproductive health-care clinics and outreach services, travel restrictions, fear of infection, and loss of income due to the COVID-19 pandemic have affected the ability of girls and women to access services and supplies across Latin America and sub-Saharan Africa to the extent that experts have warned that decades of progress towards securing reproductive rights of girls and women could be undone. 1,27,35-37

In many countries in Latin America and sub-Saharan Africa, COVID-19 infection and COVID-19 response measures have occurred against a backdrop of longstanding discriminatory socioeconomic and political practices, which have affected women living in poverty and whose intersectional characteristics increase the levels of discrimination they face. The pandemic also occurred at a moment of demands for change and greater equality. In Latin America, before the COVID-19 pandemic, women had been mobilising in growing numbers to demand an end to institutional sexism and gendered violence, and an expansion of health. reproductive rights, and welfare, in the context of both an economic slowdown and a human rights crisis.<sup>38</sup> In sub-Saharan Africa, a growing feminist movement advocated for the integration of gender into development policies and governance,24 greater rights for women in terms of property ownership, sexual rights in the home, and political rights in society.<sup>25</sup> In both regions, these movements were successful in generating steady progress towards the health, economic, and political rights of women.

Women's mobilisation for rights, health, and citizenship, alongside the prominence of gender targets in the SDGs, led to a greater awareness of the gendered effects of the COVID-19 pandemic and the need for adjusting emergency responses to COVID-19 among the public and within policy circles for all genders. This was reflected in policy recommendations by regional organisations in both regions. The African Development Bank's 2021–25 Gender Strategy recognised the short-term and long-term effects of the COVID-19 pandemic on women and indicated that an area of focus of its work with member countries would be to increase women's access to finance and social services, and markets to expand women's employment opportunities.39 The African Union and the African Development Bank allocated funds towards supporting community health workers to provide primary health-care to communities and targeted female-headed households for provision of sanitation kits and food supplies, which increased the likelihood of reaching women. 40,41 The Economic Commission for Latin America and the Caribbean (ECLAC), one of the region's most important think tanks and advisory bodies, published a series of documents with policy recommendations for how member countries should respond to the pandemic to protect women from anticipated effects, such as gender-based violence. ECLAC recommended increased funding for services to safeguard women and girls at risk of, or already experiencing, gender-based violence, and for improving data collection for assessing the efficacy of these programmes.<sup>42</sup> The effects of feminist movements advocating for enhanced protection for women and girls at risk of violence were beginning to deliver some successes before the onset of the COVID-19 pandemic. For example, in Colombia, feminist movements before the COVID-19 pandemic pushed the government to establish services to respond to gender-based violence cases.<sup>43</sup> Some countries in both regions also sought to address pandemicaggravated gender inequalities through enhanced social protection spending.44-46 However, these responses. although well meaning, represent simplified approaches to addressing the gendered effects of the COVID-19 pandemic that isolate women and girls from the more general set of policies designed to address the pandemic. Such responses present women as victims rather than addressing the perpetrators of patriarchal and misogynistic violence. Overall, these responses miss the importance of linking pandemic responses to policies that promote women's safety, protection, dignity, and income. As such, existing pandemic response policies have been too narrow and did not use a systems approach to address the pandemic while mitigating the costs to the health and wellbeing of women and girls that are exacerbated by the very policies introduced to manage the pandemic.

Addressing the gendered development effects of the COVID-19 pandemic effectively requires addressing the different components in the development system together, rather than adopting linear and isolated measures. Our research shows that international and regional organisations have become more aware of the need for systems thinking and approaches to addressing gender inequalities than in past health crises, and increasingly foreground gender in many of their policy recommendations and discussions. 47-49 These recommendations frame gender as intersectional and highlight the importance of gender mainstreaming in COVID-19 recovery and maintaining progress towards the SDGs.50 In May, 2021, WHO launched a One Health High-Level Expert Panel to improve understanding of how diseases with the potential to trigger pandemics emerge and spread, which represented a silo-breaking, systems thinking, and open dialogue approach to anticipating and responding to pandemics.51 ECLAC encouraged member states to use systems thinking in strengthening care policies through "incorporating all communities which require care, while at the same time coordinating them with economic, employment, health, education, and social protection policies on the basis of promoting social and gender co-responsibility."9 The Africa Centres for Disease Control and Prevention held public engagement sessions to discuss how systems thinking could be integrated into clinical approaches to managing the effects of the COVID-19 pandemic on women and children. 52 However, there is still a large disparity between regional-level recommendations and national-level policy making and action.

## National responses: a focus on who is infected

The absence of a systems thinking approach has resulted in responses by national governments in Latin America and sub-Saharan Africa that focus on who is infected as opposed to who is affected. An example of this is the absence of consideration of gender in government COVID-19 responses to informal trade in both regions. In east Africa, countries implemented border closures, despite policy advice against this by regional organisations such as the East African Community.53,54 These actions adversely affected the highly feminised informal trade sector.55 In the implementation of emergency and recovery measures, Latin American and sub-Saharan African governments recognised informal workers, most of whom are women, as essential workers and indicated plans for provision of social protection. 56,57 Yet, analyses show that policies were applied unevenly. In some countries, only some informal workers were allowed to operate. For example, although all informal workers were considered as essential workers during lockdowns, only food vendors and those operating in markets (as opposed to street vendors) were permitted to continue operations.56 These challenges for women were accompanied by other issues. For example, in cities in Kenya, South Africa, and Ghana, the absence of childcare for informal traders during the pandemic reduced women's ability to operate their businesses and thus drastically reduced the income they needed to survive.<sup>57</sup>

Some policies had major unanticipated effects on women's health. In Uganda, the 2020 government ban on public transport, which was introduced to limit the spread of COVID-19, reduced access to maternal health services for many women.58 In Kenya, primary health-care facilities, especially those in large cities, were converted into COVID-19 guarantine facilities that generated severe disruptions to sexual and reproductive health service provision.<sup>59</sup> Colombian health services did not prioritise sexual and health services because their focus was on those with COVID-19 infection.43 In both sub-Saharan Africa and Latin America, governments have been slow to provide guidelines on whether pregnant women can receive COVID-19 vaccinations, with Kenya, Mozambique, and Angola explicitly issuing notices against COVID-19 vaccinations for pregnant women.60 Latin American countries issued guidance that qualified only specific groups of pregnant women (eg, pregnant health workers) as eligible to receive the COVID-19 vaccine.60 These guidelines exclude women from accessing COVID-19related health care without providing alternative approaches for preventing COVID-19 infection.

These are examples of how national responses have failed to acknowledge the pre-existing gendered inequalities in their COVID-19 responses and have consequently contributed to exacerbating those inequalities. Unless steps are taken to address these failures, there is a risk that progress made towards SDG targets on gender equity and gendered health before the COVID-19 pandemic will be wasted and future gains reduced.

## Financial dependence and austerity also shape COVID-19 responses

LMICs in Latin America and sub-Saharan Africa have macroeconomic instability and dependence on external donors and international financial organisations. Adopting an effective systems approach that can tackle the gendered health challenge means acknowledging that wider macroeconomic factors are key drivers of gendered vulnerability in the COVID-19 pandemic in both regions.<sup>23,61</sup> The pandemic has pushed countries in the two regions to reduce public spending on social services and reduced their capacity to operationalise systems thinking to respond to the COVID-19 pandemic. Estimates show that governments in sub-Saharan Africa and Latin America have spent 10–30% of GDP on stimulus response packages, which were dedicated towards protecting vulnerable citizens.<sup>62</sup>

When the pandemic started, most countries in Latin America and sub-Saharan Africa were already economically challenged. Early analyses of the effect of the COVID-19 pandemic noted that these countries would require substantial amounts of resources to provide the

required stimulus packages that would match the level of need to protect welfare gains made over the past decade. <sup>63</sup> To do so, these countries have had to turn mainly to international donors, increasing their existing debts, because of scarce access to international financial flows. The capacity of these countries to adequately respond to the crisis or adopt a more holistic and integrated response to the COVID-19 pandemic was limited from the outset. This has proved costly, and unless addressed, will limit the recovery and limit the capacity of governments to respond differently in the future.

Support from international and regional actors comprises a mix of debt-based and grant-based financing. Yet, international organisations are still recommending that countries in Latin America and sub-Saharan Africa turn to debt solutions for funding emergency response.7 Most resources provided by international finance institutions in response to COVID-19 have been loan-based. There have been growing campaigns for debt write-offs,64 but these campaigns have so far only resulted in moratoriums to ease debt burdens from before the COVID-19 pandeimc.65 For example, Kenya has financed almost the entirely of its COVID-19 responses through increasing its external borrowing. 66,67 Moving forward into COVID-19 recovery, these countries will have to make difficult choices about where to invest shrinking financial resources. 68 This follows efforts by international lenders to leverage this debt burden to demand the introduction of austerity in Latin American and sub-Saharan African countries. The World Bank has recommended wage bill management as a medium-term to long-term option for Kenya to address its fiscal spending deficit in COVID-19 responses,27 and the International Monetary Fund laid out its state-shrinking conditionalities for El Salvador and Ecuador that would be necessary for loans to manage pandemic responses. 69

Early in the pandemic, countries in sub-Saharan Africa recognised that debt servicing would be a substantial barrier to their capacity to respond and recover from the pandemic. In response, large creditors, such as the International Monetary Fund, issued temporary debt relief for low-income countries. Yet, debt relief has not generated increased public spending because governments are using this financial break to pay off other private creditors in lieu of investment in public services. This means that LMICs generally prioritise debt servicing over health investments, resulting in health system provision that is below the minimum target required by the SDGs. The services are substantially substantial transfer of the substantial barrier in the substantial barrier to their capacity to respond and recover from the pandemic. The substantial barrier to their capacity to respond and recover from the pandemic.

Increasing debt, especially if accompanied by austerity, leads directly to cuts in public spending, with measures such as welfare cuts and the removal of subsidies on basic goods likely to disproportionately affect the health of women and girls. Furthermore, evidence from previous crises suggests that the costs of repaying the debt will fall unevenly on women and directly affect their health, especially for women in poor communities and

the informal sector (understood by the International Labor Organization as those people who are engaged in producing and selling goods with the primary purpose of generating employment and income for themselves).<sup>73,74</sup> Previous research has shown how past structural adjustment programmes implemented in response to International Monetary Fund debt conditionalities led to cuts to education and health spending, both of which are crucial for the reduction of gender inequalities.<sup>75</sup>

Macroeconomic concerns have also led to a reduction in the amount of aid available. For example, the Organisation for Economic Co-operation and Development notes that even though Development Assistance Committee countries have committed to achieving their Official Development Assistance targets, post-2020 flows are likely to be substantially reduced.76 These deficits have directly affected activities that support reduction of gender inequalities, especially those experienced by women. In sub-Saharan Africa, contraction in flows of international aid has led to the reallocation of finance towards meeting immediate COVID-19-related health needs and away from long-term plans to meet the SDGs.77 Development organisations working directly with institutions in these countries have also had international donor-driven budget reallocations away from social protection programmes, which are central to protecting against the gendered effects of the COVID-19 pandemic, particularly to women.77

All these trends point towards the possibility of governments in LMICs adopting increasing levels of austerity during and after the pandemic. Doing so will directly limit the capacity of countries to address either longstanding gender inequalities or the gendered effects of the pandemic. This means that current recommendations by international and regional organisations for how countries should respond to the gendered effects of the COVID-19 pandemic need to consider how to manage and mitigate external financial dependence and backtrack from demanding austerity to prioritise a long-term approach that puts first health and welfare, the basis for long-term development. Superficial endorsement of a systems thinking approach without a deeper engagement with the root causes of insufficient capacity of countries in Latin America and sub-Saharan Africa to fully implement approaches that identify and address the complex drivers of gender inequalities will still leave women vulnerable to the long-term effects of the COVID-19 pandemic. Governments and international organisations need to take braver steps towards a whole systems thinking approach to ensure that women's development needs (and those of other marginal communities) are not compromised.

### Recommendations

How can integrated systems thinking address gender inequalities and how can it help address gendered inequalities in COVID-19 responses? First, systems thinking requires maintaining a focus on progress on

gendered inequalities, through and beyond the COVID-19 pandemic, even if the world after the pandemic is economically volatile and recessionary. Steps towards greater gender equality cannot be put on hold until the COVID-19 crisis is over. As we have argued in this Viewpoint, taking an approach that asks who is affected, as opposed to who is infected, is the beginning. This then leads to asking questions about the root causes of the vulnerability of women during the COVID-19 pandemic.<sup>22</sup>

The damage caused by the absence of systems thinking in integrating gender equality into COVID-19 responses will perhaps not be immediately visible within data on effects of COVID-19. This is because assessments that attempt to track government responses to COVID-19 are only on the basis of policies developed as opposed to their implementation and outcomes. 46,78-81 Therefore, the extent of gaps of these policies will remain unknown in the nearterm until countries transition to COVID-19 recovery.

We recommend three key interventions for improving health provision and wellbeing of women in LMICs that are responding to and recovering from COVID-19, and we suggest that international, regional, and national organisations promote them. First, debt financing will be crucially important for highly indebted LMICs and should be implemented as soon as possible. Progress on the SDGs requires breaking the cycle of debt and austerity, which is likely to recur particularly in low-income countries when current moratoriums are lifted. Low-income country creditors, such as the International Monetary Fund, should consider total debt write-offs, particularly for low-income countries, and have equal lending conditions that would enable these countries to benefit from the global economy. This would mean that current debt-driven funding barriers that affect national governments' ability to provide women's health service and wellbeing provision can begin to be addressed-and governments should be encouraged to do so. Second, debt financing should be accompanied by a recognition of the needs of vulnerable women and girls in development policy to address gender inequalities and other development challenges. Planning for COVID-19 recovery should be informed, from the outset, by a commitment to gender-responsive policies and specifically those that support the delivery of the SDGs. Lastly, for action that begins to identify and address the root causes of vulnerabilities of women and girls to be fully effective, different components of health for women and women's development must come together, such as provision of health-care services, social protection, sexual rights for women, and childcare and family care services.82

We consider these three recommendations as inextricably linked. Policy integration that improves the wellbeing of women and girls in LMICs must be driven by the wealth of expertise available in women's organisations whose work is underpinned by situated knowledge and lived experience of women and girls.

These organisations can identify challenges that were faced by women and girls during responses to previous viral outbreaks, such as the Zika virus and Ebola virus epidemics, and how COVID-19 responses have supported the welfare of women and girls. Working with these groups will highlight policy requirements for COVID-19 response and recovery that advances progress towards the SDGs. Approaches that leverage systems thinking will be those that are designed and led by organisations and groups who have a deep understanding of intersectionality and who can identify and address the root causes of gender inequalities. This will in turn engender a more equitable recovery phase from the COVID-19 pandemic in LMICs, which would present opportunities to truly build back better.

#### Contributors

JG conceived the idea for this Viewpoint. JO led the writing and development of the Viewpoint. MB, TL, MEG, and JG contributed to the literature review, writing, revising, and editing of the Viewpoint.

#### Declaration of interests

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