Disruptions in household income flows due to the COVID-19 pandemic and lockdown pose serious risks - both to individuals and households, but also to the effectiveness of the lockdown itself. When income flows are severely disrupted, household members may experience a reduction in food, interruptions to management of chronic disease, and acute stress, increasing vulnerability to infectious disease. Even more marginal disruptions are likely to trigger stress, and interfere with protective behaviours. For example, purchase of food already appears to have shifted away from more nutritious foods towards more cost-effective staples. When households are not able to meet their most basic needs, it is inevitable that there will be non-compliance with lockdown restrictions, reducing the effectiveness of the lockdown as a whole. As a recent newspaper article puts it, ‘hunger is a force greater than fear’. Given the massive and wide-ranging costs of a national lockdown, and the fact that these costs fall disproportionately on the poorest people, it is imperative to understand where poverty is increasing, and to target interventions appropriately.

Earning income through formal employment provides a measure of protection against short-term income disruption due to the COVID-19 pandemic, or as a result of the implementation of lockdown measures. While many businesses are struggling, and loss of formal sector jobs seems inevitable, the impact on income through formal employment is likely to play out more gradually. Businesses are obliged to follow due process in retrenching staff, employees are more likely to be able to make use of leave to cover the lockdown period if needed, and those whose hours are reduced or who are obliged to take unpaid leave should receive some support through UIF. Additionally, most governmental support initiatives proposed to date are focussed on the formal sector. By contrast, for those reliant on informal income, or without a clear income source, the difficulties are likely to be far more immediate, and particularly given the lockdown, more extreme. This leaves these households particularly vulnerable.
Map 1 uses data from the GCRO’s Quality of Life survey V (QoL V; 2017/18) to illustrate the proportion of households per ward who do not receive any formal sector income, and consequently are least likely to be insulated from short-term shocks to income as a result of the lockdown.

In the areas in dark blue (like the wards around Hammanskraal, Stinkwater, parts of Mamelodi, Atteridgeville and Ivory Park, around Bekkersdal, Sebokeng and Khutsong), over two thirds of households receive no income through formal employment. This type of spatial concentration of vulnerability poses additional challenges. In a community where a large proportion of households experience a negative impact shock simultaneously, there is less scope for support to be found locally. In those areas where many households are covered by social grants (see supplementary maps), this should provide some - though inadequate - insulation, but the impact is likely to be particularly extreme in areas where grant coverage is less extensive, such as wards around Tembisa, Mamelodi and Khutsong.
Figure 1 shows Household Income streams using QoL V data and indicates 51% of households receive income through formal employment. This leaves 49% of households who are completely dependent on other income streams. Of these households, only 53% report that they receive grants - leaving a full 47% who do not receive this minimal level of social support. Similarly, only 29% of these households are registered on municipal indigency registers.

High levels of indebtedness add to the challenges that an abrupt interruption of income will impose. Of households with no income through formal employment, 30% report having debt. This constitutes 40% of households with debt. This places these households in a position of even greater vulnerability, and is likely to exacerbate already high levels of difficulty in meeting debt obligations: 57% of households who have debt and no income through formal employment have missed a debt payment in the past 3 months.
While households with no income through formal employment may experience the most substantial short-term disruption to income, 28% of households who do receive income through formal employment also rely on more precarious sources of income. We have defined these as income obtained through informal employment, support from family or remittances, support from friends, or from rental income. A further 77% of households who do not receive income through formal employment are dependent on one or more of these more precarious income streams. In total, 52% of households are reliant on these income streams.

In the context of the lockdown, opportunities to earn informal incomes have almost entirely been shut down. In the current economic environment, it also seems unlikely that flows of income from family or friends can be sustained at typical levels. Further, in the context of widespread and sudden loss of income, it is inevitable that many will be unable to make rental payments, impacting those who rely on rental incomes. Map 2 plots the percentage of households per ward who report income from these sources. While the areas with the highest proportions of households affected are largely consistent with Map 1, it appears that disruption to income streams is probably even in some areas with a relatively high proportion of households receiving some income through formal employment, such as in Saulsville and areas around Hammanskraal.
Although social grants provide households with only a small amount of income, they provide a core, and reliable, source of income for many households. Government has made extensive efforts to ensure that grants continue to be safely delivered during the lockdown. Consequently, households that receive grants can be assured of a minimal level of ongoing income. Nonetheless, the households that are eligible for grants are primarily the most vulnerable, and grant eligibility operates as a strong proxy for poverty.

Map 2: Percentage of household per ward that derive some income from a vulnerable source
This map illustrates the proportion of households per ward who receive grant income. This highlights areas with high levels of poverty, and low levels of employment. While some of these areas are fairly central, many are in the more peripheral areas of the province, highlighting the logistical challenges of ensuring that large-scale grant distribution remains both accessible and safe in the context of the pandemic.
Conclusion

Given the disproportionate burden that a lockdown places on households already living in or near poverty, understanding and intervening in areas where income poverty is likely to increase in the short-term is an essential component of a lockdown as part of a public health strategy. Without adequate support, the lockdown seems likely to worsen the health and well-being of many. And if hunger forces substantial numbers of people to ignore the lockdown, this will also render the lockdown ineffective against COVID-19 itself. Our data provides an indication of patterns at the ward-level, but understanding dynamics within communities at a more localised level will be critical in ensuring that the needs of the most vulnerable, and often the most marginalised, can be appropriately met. Drawing on existing community organisations and networks will play a critical role.

Our data demonstrates that while social grants play an important role in meeting many basic needs, they leave many gaps. The pandemic both exacerbates vulnerability, and makes meeting basic needs - existing and new - more critical than ever. Policy tools are available. Key recommendations, alongside protecting employment and business, include universal income grants, extending the provision of key basic services, and providing support for those whose care-giving roles expand with schools closed, and many other services reduced. Support of this nature will be crucial in minimising the human and long-term economic costs of this pandemic.