

PATIENTS' SELF-REPORTED QUALITY OF LIFE AND COSTS FOLLOWING TREATMENT FOR HEPATITIS C IN UKRAINE—PRELIMINARY RESULTS

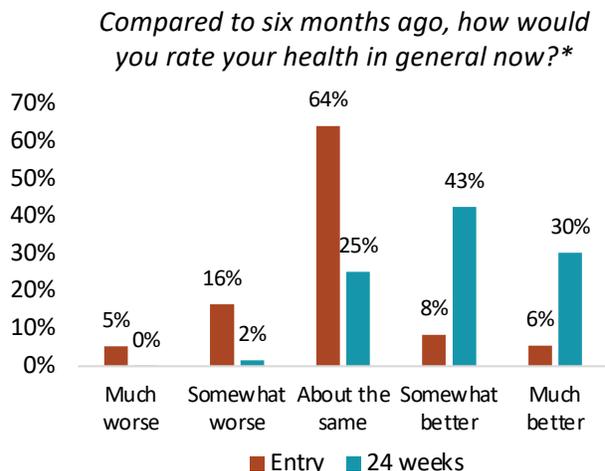
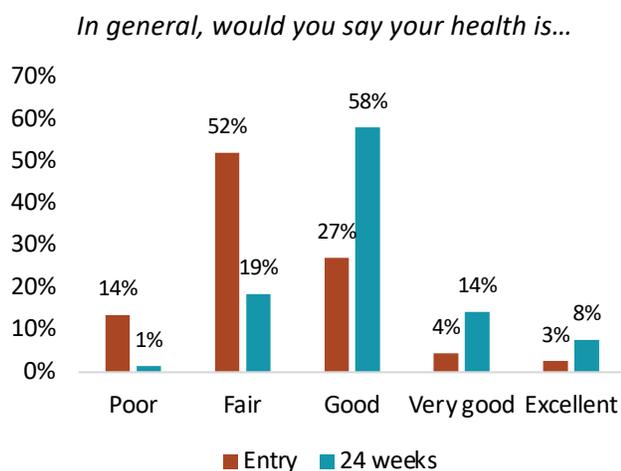
BACKGROUND

- Effective hepatitis C treatment has been shown to vastly improve quality of life (QOL) among patients.¹
- As part of a single-arm study of an integrated HIV and viral hepatitis testing and HCV treatment strategy using generic ledipasvir/sofosbuvir (LDV/SOF), we quantified improvements in QOL indicators among treated HCV patients in Ukraine.
- Patients were enrolled at two clinical facilities in Kyiv in 2018. Patients were identified from treatment waiting lists at the sites, referrals by partner organizations, or lab results for HCV antibody and RNA tests at the sites. Eligibility criteria included HCV viraemia and age ≥ 18 .
- Participants were followed-up for 24 weeks, which included 12 weeks of treatment and 12 weeks of follow-up after treatment completion, with a primary outcome of sustained virologic response (SVR) at 24 weeks.
- Patients were interviewed at baseline and 24 weeks for costs of seeking care and quality of life indicators, using an adapted version of the MOS-SF20 instrument.²

SUMMARY OF PRIMARY OUTCOMES

- Characteristics of enrolled participants and their clinical and laboratory outcomes, along with the costs of the intervention to the provider, have been reported in detail elsewhere.³
- A total of **868** patients were enrolled in the study (median age 39 years, 66% male). Of these, 87% reported being injectable drug users, of whom 61% were on medication-assisted treatment. More than half (56%) were HCV/HIV co-infected.
- Of the total enrolled, **96% achieved SVR** at 24 weeks, 1% did not complete treatment, and 3% had detectable virus.
- Using generic SOF/LDV drug pricing, the average cost to the provider per patient enrolled was \$678.
- In the results that follow, we compare questionnaire results at study entry (baseline) to results at study exit (24 weeks). 24 week results exclude ≈ 10 participants with missing data.

RESULTS: OVERALL HEALTH



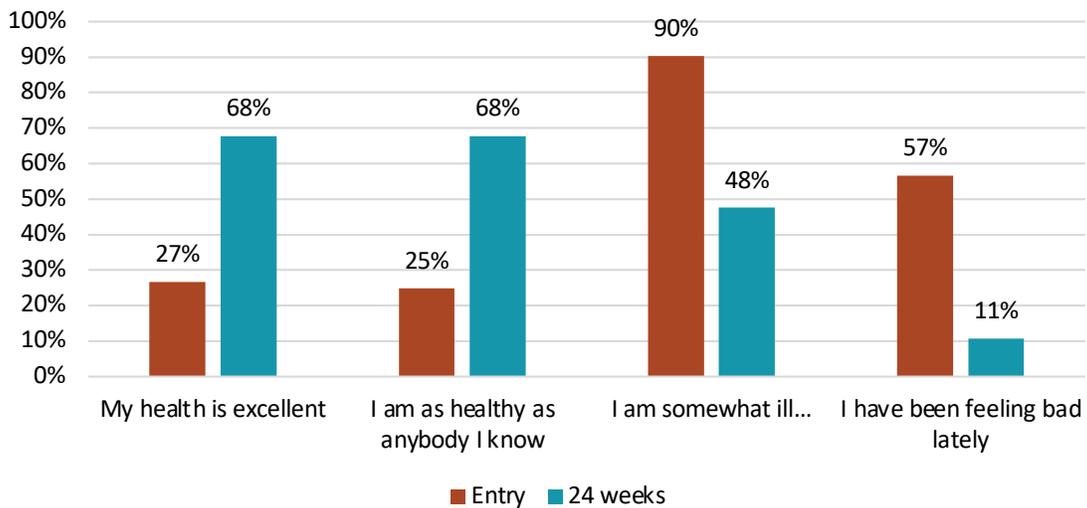
*Refers to periods 6 months prior to study entry and 6 months prior to study exit



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The following statements are definitely or mostly true of me...

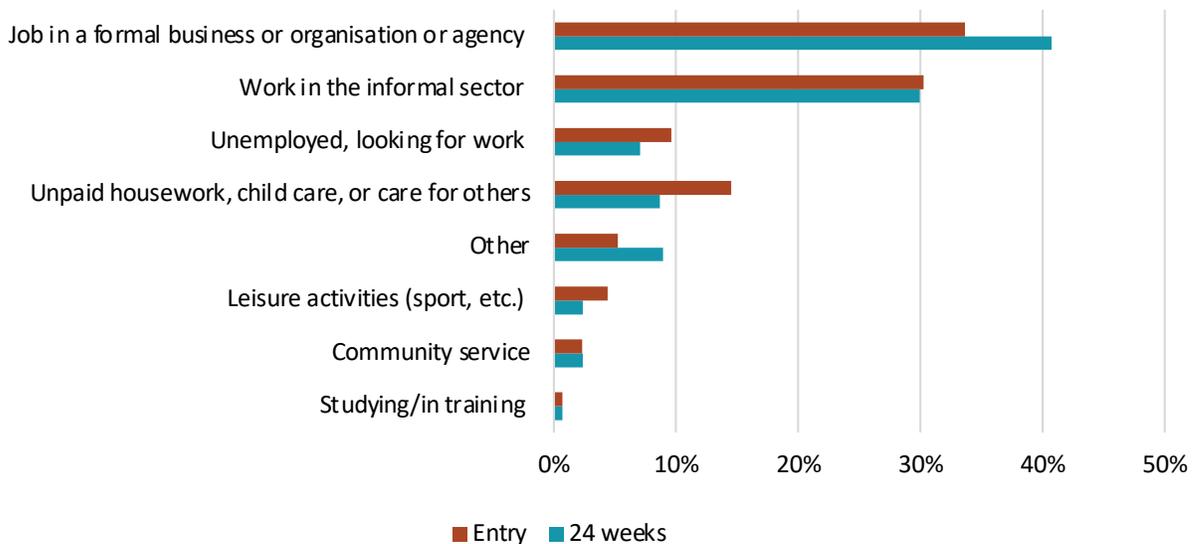


- Self-rated health improved substantially between study entry and exit. At study entry, 66% of participants rated their own health as poor or fair; by study exit, 80% said their health was good, very good, or excellent.
- When asked to compare their health at the time the questionnaire was being completed) compared to 6 months ago, almost two thirds of participants reported no change in the six-month period prior to study entry, while nearly three quarters said it became somewhat or much better during the six-month period after study entry.
- At 24 weeks, 20% of participants continued to rate their own health as poor or fair.
- The proportion of patients reporting that their health was excellent rose from 27% to 68%, while those reporting that they have been feeling bad fell to just 11%.

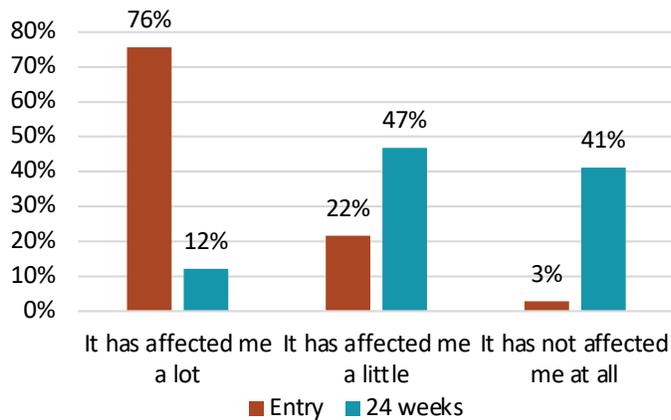
RESULTS: FUNCTIONAL IMPAIRMENT

Note: functional impairment refers to activity limitations due to illness.

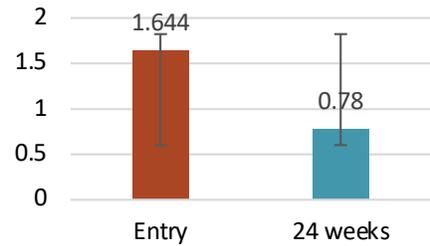
What is the main activity you usually do when you are feeling well?



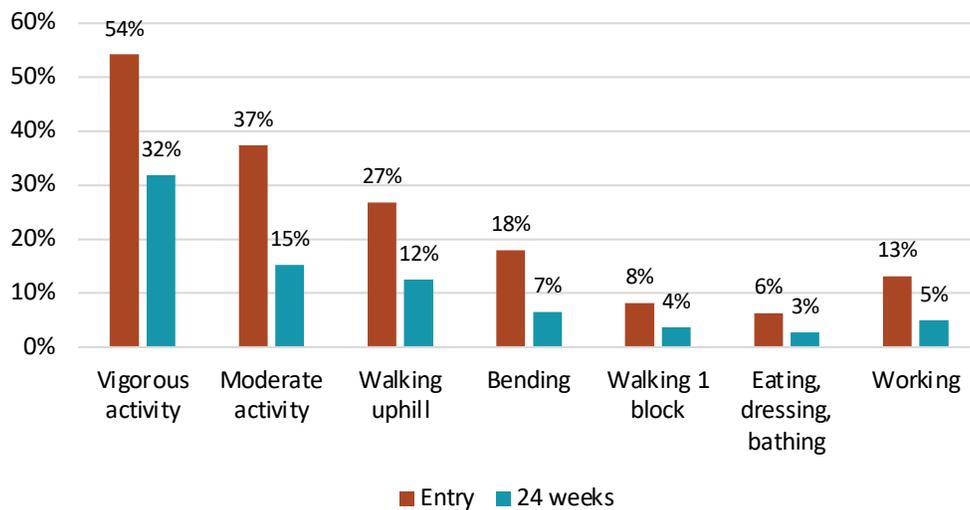
In the past 2 weeks, how much has your health affected the quality at which you can do your main activity?



In the past two weeks, how many days were you not able to do your main activity for all or most of the day because of your health or time spent seeking healthcare?



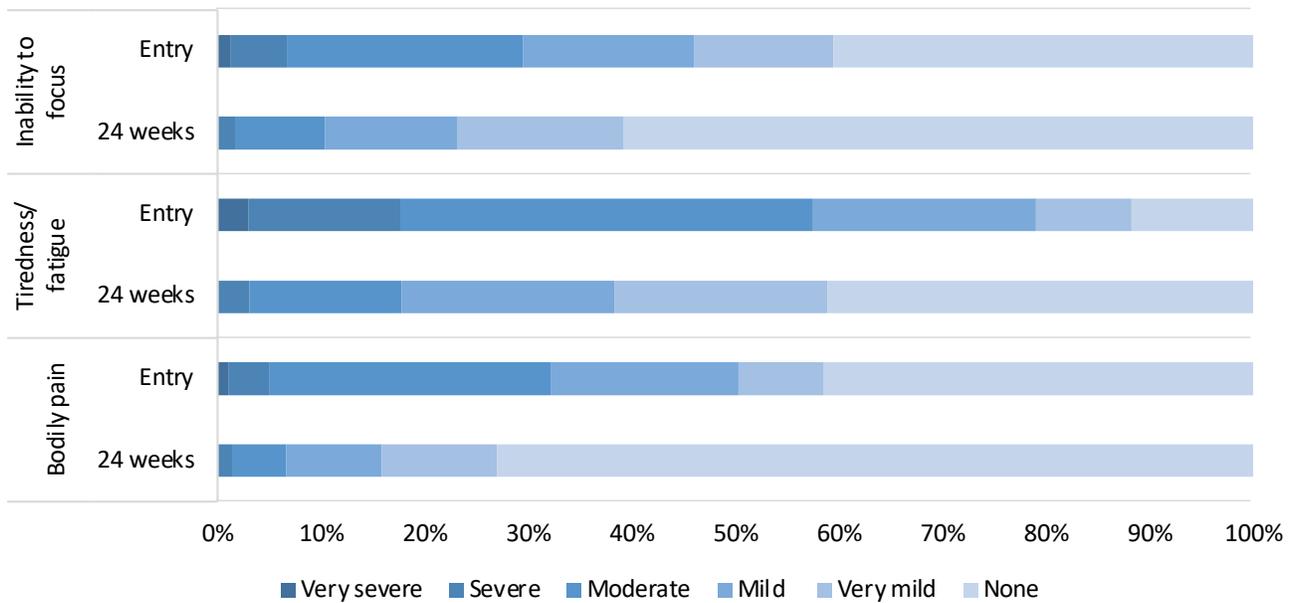
My health limits me in doing the following activities...



- Employment in the formal sector increased from 33% to 40% of participants between baseline and 24 weeks, with concomitant reductions in unemployment and unpaid work.
- The proportion of patients reporting that their health did not affect the quality at which they could undertake their main activity (e.g. their productivity at work) rose from 3% to 41%; only 12% said that their health affected this indicator a lot by study exit.
- Participants also reported a halving of the number of days in the preceding two weeks when they were unable to do their main activity due to ill health or time spent seeking healthcare, 1.64 (95% CI: 1.45-1.84) days at baseline to 0.78 (0.61-0.95) days at 24 weeks.
- The proportion of patients reporting that their health limited their ability to perform various activities, such as walking uphill, declined substantially, though a third still reported limitations in undertaking vigorous activity at study exit.

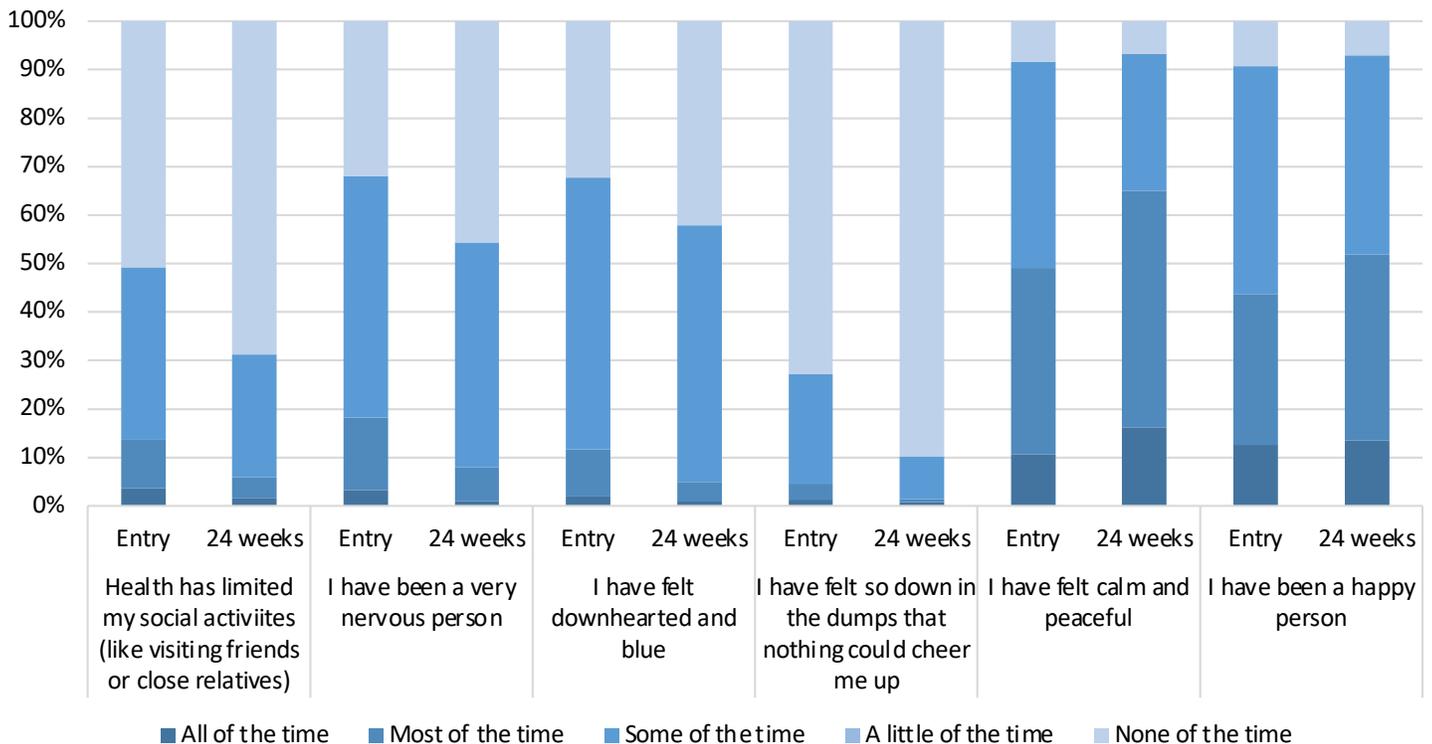
RESULTS: PHYSICAL AND MENTAL SYMPTOMS

In the past four weeks, I have experienced...



- The proportion of participants who reported no inability to focus increased from 41% to 61%.
- Reports of severe or very severe fatigue fell from 57% of participants at entry to 18% at 24 weeks.
- At entry, 41% of participants reported no bodily pain in the last 4 weeks; this proportion rose to 73% at study exit.

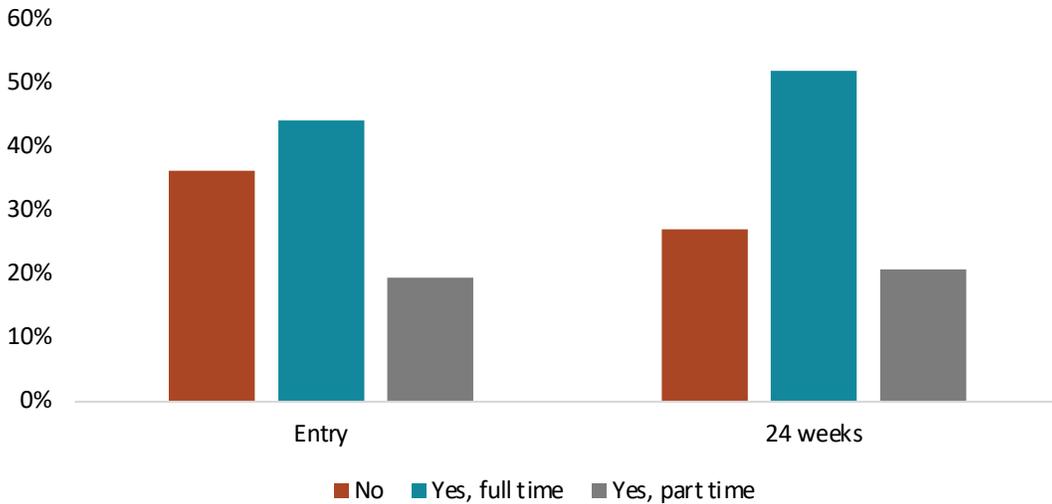
How have you been feeling during the past month?



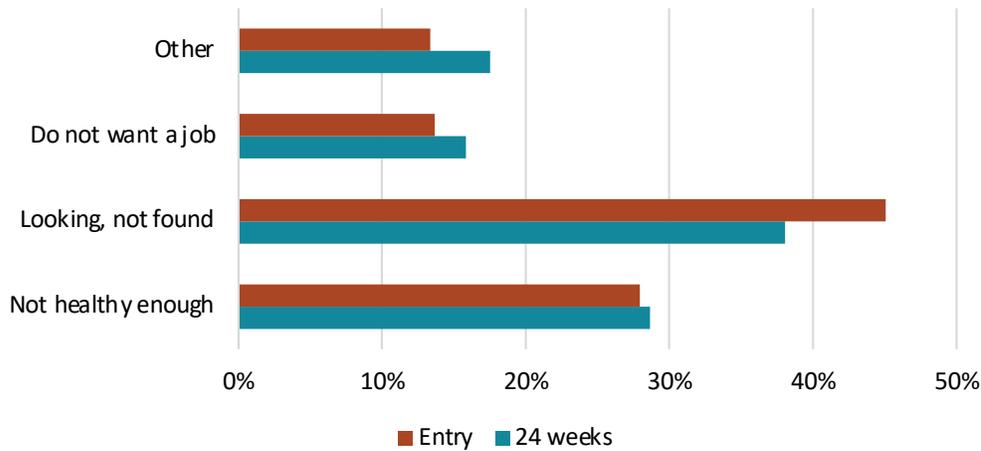
- In general, negative feelings and reactions (left four sets of columns) became milder or disappeared between study entry and exit.
- Positive feelings (right two sets of columns) changed less, though there were small increases in the proportions of patients who felt calm and peaceful or were happy most of the time.

RESULTS: EMPLOYMENT

Do you currently have a job?



Reasons for unemployment*



* Only answered by those unemployed. N= 315 at baseline, N=232 at 24 weeks.

- More participants were employed either full-time or part-time at 24 weeks than at study entry.
- Health continued to be a barrier to employment for roughly 30% of unemployed participants at study exit.

RESULTS: PATIENT COSTS

Type of cost	Entry	24 weeks
Patient costs due to clinic visits*		
Travel time/visit, one way (minutes)	70 (40; 120)	70 (40;120)
Proportion of patients incurring any travel costs	71%	66%
Travel cost/visit for patients incurring cost >0	40 (24;200)	48 (32; 290)
Proportion of patients incurring any costs to pay others for substitute labor (e.g. childcare)	1.6%	2.8%
Cost to others/year for patients incurring cost >0	175 (113;300)	210 (138; 300)
Proportion of patients who lost any work income	31%	42%
Income loss/visit for patients incurring cost >0	100 (100; 100)	725 (713; 738)
Proportion of patients incurring any other costs	10%	5%
Other cost/visit for patients incurring cost >0	60 (25; 100)	70 (30; 214)
Patient costs incurred in past month		
Proportion of patients incurring any medication costs	20%	5%
Medication cost in past month for patients incurring cost >0	500 (250; 1000)	400 (200; 1000)
Proportion of patients incurring any costs for laboratory tests	88%	11%
Laboratory cost in past month for patients incurring cost >0	1200 (800; 2000)	350 (212; 500)

*Costs reported in Ukrainian hryvnia; exchange rate as of Jan 2021 was ₴ 28.1/USD 1.0 and ₴1.9/ZAR 1.0.

- Travel costs remained stable from baseline to 24 weeks after study enrollment; about two thirds of participants paid for travel, usually by minibus taxi.
- The proportion of participants who lost income as a result of making a clinic visit increased slightly, perhaps mirroring the increase in overall employment observed between the two time points.
- The proportion of participants who reported paying for medication decreased from 20% at baseline to 5% at 24 weeks.
- Most patients report paying for laboratory tests in the month before study entry, likely reflecting pre-study diagnosis or monitoring.

References

1. Serper M, Evon DM, Amador J, Stewart PW, Sarkar S, Lok AS, Sterling RK, Reeve BB, Golin CE, Rajender Reddy K, Lim JK, Reau N, Nelson DR, Di Bisceglie AM, Fried MW. Patient-reported outcomes 12 months after hepatitis C treatment with direct-acting antivirals: Results from the PROP UP study. *Liver Int.* 2021 Jan 2. doi: 10.1111/liv.14781. Epub ahead of print. PMID: 33387381.
2. Rand Corporation. 20-Item Short Form Health Survey (SF-20). Available from: https://www.rand.org/health-care/surveys_tools/mos/20-item-short-form.html.
3. Antoniak S, Chasela C, Freiman JM, et al. Treatment outcomes and costs of a simplified antiretroviral treatment strategy for hepatitis C among HCV and HIV co-infected patients in Ukraine. Unpublished manuscript. Available on request from Charles.Chasela@wits.ac.za.