

CHAPTER ONE: INTRODUCTION

The UNAIDS estimates that there were 36.9 million people living with HIV (PLHIV) in the world by the end of 2014¹. While this figure is up by 8.3 million over the period of the previous 15 years, the annual number of new HIV infections has actually declined from 3.1 million to 2 million over the same period. The global effort to control HIV has made it possible for approximately 15 million PLHIV to access treatment¹.

In high-income countries where there is access to antiretroviral treatment (ART), PLHIV have significantly improved life expectancy²⁻⁴. Evidence supports that ART is as effective among PLHIV in resource-poor settings as those in high-income countries⁵. The steady decline in AIDS-related deaths in the years 2009-2014 parallels the improved access to free ART in low-resource settings¹. HIV, which was once a deadly infection, is now becoming a chronic disease which the individuals live with⁶. However, PLHIV continue facing a repertoire of challenges such as stigma and discrimination, social hardships, and mental health issues which affect their overall well-being and quality of life⁷.

Quality of life, an important patient-rated outcome measure, has become an integral part of assessment of health interventions⁸. It presents data essential for evaluation of interventions from patients' perspectives⁹. Quality of life measurement also offers an opportunity for service users to be involved in the choice of treatments with due consideration for their subjective values.

Global efforts towards control of HIV have mainly aimed to reduce new infections and AIDS-related deaths partly through improved access to ART. ART improves the quality of life among PLHIV, particularly when there is good adherence to treatment^{10,11}. However, other factors related to the social, economic, and psychological conditions of PLHIV need to be identified and managed in order to optimize their quality of life^{12,13}.

Among others, access to adequate food and nutrition is a challenge to PLHIV in low-resource settings¹⁴. Guidelines for nutritional management of PLHIV were developed long before the introduction of ART into sub-Saharan Africa^{15,16}. Also, the United Nation's political declaration on HIV/AIDS in 2006 highlights the need for nutritional support for

PLHIV¹⁷. Accordingly, HIV care programs often provide nutritional counseling and/or food support¹⁸. These interventions aimed to address the high rates of malnutrition and food insecurity in PLHIV. Evidence supporting the clinical benefits of nutritional supplementation for PLHIV from low income countries emerged only recently. However, there is still scanty data on the effects of nutritional supplementation on the quality of life of PLHIV in low-income countries¹⁹.

The understanding of broader quality of life benefits of nutritional supplementation, if any, from the perspectives of the PLHIV will inform relevant policies. Furthermore, in a resource-limited setting, such information assists in making decisions regarding the best timing of nutritional supplementation from the patients' perspectives, and thus, it may improve retention of PLHIV in HIV treatment and follow-up.

This PhD thesis is based on a randomized controlled trial of lipid-based nutrient supplements (LNS) for PLHIV starting ART. The trial was conducted in the Jimma sub-region, southwest Ethiopia. Quality of life was a secondary outcome of the study. The intervention investigated was peanut-based LNS with whey or soy protein given during the first three months, or between the fourth to sixth months after initiation of ART. The work was preceded by a study which aimed to adapt and validate the World Health Organization Quality of Life tool developed for PLHIV in Ethiopia (WHOQOL-HIV). Furthermore, a cross-sectional analysis of factors associated with low quality of life among the study population is presented in this thesis, with specific investigation of mental health and food insecurity.