


# Chapter 87


## SMS/Texting as a Viable Intervention Strategy to Improve Care for Persons Living With HIV in the United States

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### ABSTRACT

*Effective management of people living with HIV/AIDS is influenced by adherence to both medical appoint-*

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*ments, as well as adherence to antiretroviral therapy (ART). Successful adherence to both components has been linked to viral load suppression in affected patients, leading to a better quality of life. Recent studies have utilized mobile health (mHealth) interventions to promote adherence. These interventions include SMS/texting, as well as mobile applications that have been developed specifically for the purposes of promoting adherence. Using a scoping literature review the authors investigated the effect of mobile health (mHealth) interventions delivered via SMS/text on HIV viral load suppression, adherence to medication regimen and to medical appointments. The authors employed a scoping review methodology. A bibliographic librarian guided the data search. Studies were limited to interventions conducted in the United States. A total of 16 studies met the criteria and were included in the scoping literature review.*

## **INTRODUCTION**

The HIV/AIDS epidemic has been prevalent in the United States (U.S.) since the early 1980s. According to the Centers for Disease Control and Prevention (CDC) (2016), approximately 675,000 people have died since the beginning of the epidemic, with roughly 13,000 individuals living with HIV still losing their lives annually (CDC, 2016). Owing to the advent of highly effective, less toxic medications, which in many cases are taken only once per day, a diagnosis of HIV is no longer considered a “death sentence”. Antiretroviral therapy (ART) emerged in the mid 1990s and resulted in a significant decline in the number of cases that progress to AIDS, and ultimately, to death (CDC, 2021). Despite these improvements, nearly 35,000 Americans contract HIV each year.

The HIV virus destroys the infection-fighting cells of the body, better known as CD4 T lymphocytes. The loss of these cells leads to the inability of the body to fight off certain illnesses, infections, and cancers (CDC, 2021). Without the appropriate treatment regimen, HIV destroys the immune system, leading to the onset of acquired immunodeficiency syndrome (AIDS) (DeFulio et al., 2021). Individuals diagnosed with AIDS are at an increased risk of developing opportunistic infections, which are illnesses that occur much more frequently and severely among those with weakened immune systems (DeFulio et al., 2021).

The objective of initiating an ART regimen is to achieve a substantial reduction in the HIV viral load count, with the goal of obtaining viral load suppression. Viral suppression is defined as fewer than 200 copies of viral RNA per milliliter blood (Eamsakulrat et al., 2022; CDC, 2016). The benefits to the patient for achieving and maintaining viral load suppression include a lower probability of vertical transmission from mother to child, a decrease in the rate of sexual transmission between intimate partners, and a lower likelihood of developing AIDS (CDC, 2016).

Current ART therapies are highly effective at decreasing viral load. However, the successful control of viral replication relies on more than just the efficacy of the medications. Adherence to both the prescribed medication regimens and scheduled healthcare appointments are crucial to ensure the health of the person living with HIV and, at the public health level, to minimize the spread of HIV.

Several types of interventions have been implemented to help persons living with HIV increase the likelihood of adherence to their treatment regimens. The use of technology, going back to the early 2000s, has emerged to improve health outcomes for people with any chronic disease. Owing to the ubiquitous nature of cellular coverage and cell phone use, mobile technologies are a cost-effective option to improve adherence to HIV-related health care.

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