INTRODUCTION
Nursing care for the chronically ill has become very important due to the increase in chronic diseases. Chronic diseases are defined as those conditions that last for at least three months and are not self-limiting. A more recent definition describes chronic illness as an illness that is permanent or lasts a long time, may get slowly worse over time, may lead to death, or may finally go away, may cause permanent changes to the body and will certainly affect the person’s quality of life. Chronic diseases currently account for over half of the global health burden, and are becoming a growing health challenge in developing countries. Moreover, chronic diseases are now the major cause of death and disability worldwide. In Zambia, the incidence of chronic illness has increased steadily over the last two decades. HIV and AIDS, and its attendant malignancies such as cancer of the cervix, Kaposi’s Sarcoma and co-morbid infections like tuberculosis are a leading culprit for increasing the chronic disease burden. In this research, HIV and AIDS will be used as an archetype of chronic disease because of its chronicity.

When the first cases of HIV and AIDS were reported, it was identified as an acute disease. However, the condition has been recharacterised as chronic disease due to the way individuals are afflicted. Many biological and social forces including an increased understanding of HIV and its associated disease processes, advances in biomedical technology, and the expansion of health and social services has led to the reframing of HIV and AIDS from an acute to a chronic disease. HIV and AIDS is lengthy and has slow disease process from the time it is diagnosed to the time one gets full blown AIDS. People who suffer from HIV and AIDS experience impairment in body structure and function, requires that a patient modify normal life, and also persists over a long period of time and as such, they require nursing care. People living with HIV and AIDS also suffer from stigma, emotional distress, and feelings of uncertainty as much as they have to adhere to complicated drug regimen.

Increase in chronic disease burden demands that the healthcare workforce particularly the nurses who are leaders in chronic care are adequately prepared to care for the chronically ill. The inadequacy in the training of the nurses in chronic care nursing can result in the nurses expressing attitudes that are viewed by society as inappropriate. There are several factors that influence inadequate preparedness of nursing students and practicing nurses in the care of chronically ill patients.

Authorities assert that the nurses’ training in caring for patients with chronic illness is very critical and it affects the effectiveness of the treatment. In discourses to improve nurse effectiveness in the care of chronically ill patients two factors are often considered. The two factors considered key in the interaction of nurse training and care outcome for
the chronically ill are 1) a deficient curriculum that fails to recognise chronic care nursing as a central component of nursing education, and 2) The way theoretical and clinical training are conducted with regard the process of acquiring knowledge, skills and attitudes imperative for nursing care needs of the chronically ill. From a desk review of the General Nursing Council of Zambia Registered Nursing Curriculum, nursing care of the chronically ill is not adequately addressed and not emphasised in the curriculum. Traditionally, the prevailing models of nursing education emphasize an approach, which focuses on episodic care aimed at curing disease in individuals in an acute care setting. WHO has also stated that the current healthcare workforce lacks ‘training, education and skills set’ required to manage the burgeoning numbers of people living with chronic disease. These aspects, which WHO noted as lacking in nursing education are not purposeful but emanate as a result of multifaceted challenges such as nursing curricula and the way chronic care is taught. This entails that there is a need to improve the way in which chronic care nursing is taught to nursing students as they prepare for this demanding and essential aspect of their practice.

STATEMENT OF THE PROBLEM
There is a significant increase of chronic disease especially HIV and AIDS in the world, in general, and in Zambia specifically which has caused untold suffering among people. This increase in chronic disease burden has a resultant demand on nurses to provide quality-nursing care that addresses the needs of the chronically ill. A possibility exists that the current nursing education is not preparing students adequately for care of the chronically ill. The mismatch in chronic care demand and the preparedness of the nurses to provide it may be due to a deficient curriculum and how the nurses acquire knowledge, skills and attitudes that are required to meet the needs of the chronically ill.

PURPOSE OF THE STUDY
The study will therefore analyse, in more detail, the deficiency that seem to exist between nurse curricula and nurse practices and explore chronic care models or approaches evident among Zambian General Nursing Council (GNC) final year nursing students and GNC trained practicing nurses. The study will also assess how they formulate these chronic care models or approaches. In order to do this, the study will seek to answer the following questions:

RESEARCH QUESTIONS
1. Are registered nurses, trained under the Zambian GNC Curriculum (2000) adequately prepared with the knowledge, skills and attitudes required to meet the needs of chronically ill patients, in general, and specifically patients with Acquired Immuno-Deficiency Syndrome (AIDS), the archetype chronic disease in Zambia?
2. What chronic care models or approaches are evident among Zambian GNC final year nursing students and GNC trained practicing nurses? How do the nurses formulate these chronic care models or approaches?
3. Does the GNC curriculum prepare nurses to formulate and implement the chronic care models in dealing with chronically ill patients?

CONCEPTUAL FRAMEWORK
In order to guide the study in retaining focus on what is doable and limiting it to specific theoretical considerations, the study will be guided by the constructivist theory as a philosophical grounding and the Corbin and Strauss Chronic Illness Trajectory Framework as a standard of chronic care.

Constructivism as an Educational Philosophy
The assumptions expounded by the constructivist movement concerning the nature of learning provide a potent and appropriate philosophical grounding for exploring how nursing students and practicing nurses generate and consolidate chronic care nursing models and approaches. Doolittle contends that in constructivism an individual constructs knowledge from one’s experiences, mental structures, and beliefs that are used to interpret objects and events. The theory involves the active creation and modification of thoughts, ideas, and understandings as a result of experiences that occur within a socio-cultural context like nursing practice. The learner constructs his/her own conceptualisations of nursing practice and finds his/her own solutions to problems that may arise. Learning from experience enhances autonomy of mastering autonomy and independence in ways that facilitate independence of implementing nursing theories.

As a philosophy of learning, constructivism can be traced from as far back as the eighteenth century by the work of Giambattista Vico who asserted that
humans can understand only what they have themselves constructed\textsuperscript{13,14}. The contribution of Vico was very significant as it laid a foundation for constructivism. Other theorists like John Dewey, Jean Piaget and Vygotsky developed the idea further. Piaget’s contribution to constructivism combines descriptions of the internal processes and the internal motivation to learn\textsuperscript{15}. Learning and construction of knowledge also involves learners constructing their own understanding of the world through their interactions with it.

Three important constructivist consideration are therefore, a) reflections on own experiences of care for the chronically ill, b) motivation for learning to care for the chronically ill effectively, and c) application of skills learned from other settings/responsibilities to chronic care nursing\textsuperscript{16}. Constructivism therefore is centered on the learner who actively engages in creating and modification of thoughts, ideas and understandings as they practice with chronically ill patients. It also involves social learning as it takes place in a socio-cultural context in which the patient is cared for. The learner learns autonomously and is therefore responsible for his/her own learning.

Using this theory it can be argued that nursing students can grasp concepts and ideas\textsuperscript{17} about care for the chronically ill that they cannot understand on their own with help from teachers both in the classroom and clinical area who are more advanced, and also by interacting with their patients. Teachers therefore play a very critical role in providing a conducive environment for their students. Students, however, learn by doing and not by listening. This is accomplished by hands-on approach where students are actually involved in caring for the chronically ill. In constructivism, the emphasis is on the knowledge, beliefs, and skills an individual brings to the experience of learning\textsuperscript{18}. In nursing education different clinical settings constitute a major part of the learning context. What they learn in class may not become a reality until the context is changed to meaningful experiences in the clinical area. Learning by doing then becomes very important in care of the chronically ill.

The Corbin and Strauss Chronic Illness Trajectory Framework

The Corbin and Strauss Chronic Illness Trajectory Framework management is recognised as a middle-range explanatory nursing theory\textsuperscript{19} and is widely used to study different chronic diseases. Even though different models and professional standards of nursing practice provide guidance about care for patients with chronic illnesses\textsuperscript{8,7}, the commonest utilised model is the Corbin and Strauss Chronic Illness Trajectory Framework\textsuperscript{18}. Anselm Strauss and his colleagues started studying chronic illness in patients as early as 1960\textsuperscript{18}. Following intensive work, the social scientists focused on the conceptualisation of managing and shaping the course of an illness\textsuperscript{18}. Corbin and Strauss developed a chronic disease trajectory framework following over 30 years of interdisciplinary research on a variety of chronic illnesses\textsuperscript{19}. The model has since been used to study nursing care of different chronic diseases such as cancer, trauma, diabetes mellitus and stroke among others (Dorsett, 1991; Walker, 1991; Burton, 2000; Halcomb and Davidson, 2005). According to Monahan et al a trajectory is defined as “a course of illness over time plus the actions taken by patients, families and health professionals to manage or shape the course”\textsuperscript{18}. The trajectory of an illness can be managed by nurses who are usually in close contact with the patient when admitted to hospital.

1. Existing chronic care models among students and nurses and how the formulate them.
2. Clinical preparedness of nurses for chronic care nursing.
   Extent of coverage of chronic care nursing in ZGNC Curriculum.

1. Research tool to measure clinical preparedness for chronic care nursing.
2. Content analysis of ZGNC.
   Inventory tool for assessing chronic care models and how they develop
The Corbin and Strauss Chronic Illness Trajectory Framework consists of six steps: 1. Identifying the trajectory phase, 2. Identifying problems and establishing goals, 3. Establishing plans to meet goals, 4. Identifying factors that facilitate or hinder attainment of goals, 5. Implementing interventions, and 6. Evaluating the effectiveness of interventions. The strength of this trajectory model is the identification of differential phases in the course of a chronic disease, allowance for a variety of pathways in the disease trajectory and management strategies that a nurse can employ to shape the course of the illness.

### Table 1: Steps in the Chronic Illness Trajectory Nursing Model Management

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<thead>
<tr>
<th>Steps in Chronic Illness Trajectory Nursing Model</th>
<th>Nursing Care Involved</th>
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<tr>
<td>Step 1: Identifying the Trajectory Phase</td>
<td>Involves assessing the patient and determining the specific phase of trajectory management. This assessment enables the nurse to identify the general management needed because each management phase has its own set of medical, social, and psychological problems.</td>
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<td>Step 2: Identifying the problems and establishing goals.</td>
<td>This step involves identifying the specific problems experienced by the patient related to the phase of the trajectory and establishing goals. The problems and goals validated with the patient.</td>
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<td>Step 3: Establishing plans to meet the goals.</td>
<td>This step consists of establishing a realistic and mutually agreed on plan for reaching the goals. Specific criteria to be used to assess progress in meeting the goal would also be identified.</td>
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<td>Step 4: Identifying factors that facilitate or hinder attainment of goals.</td>
<td>This step involves determining factors that may interfere with the achieving the goal(s). Additionally, the nurse would assist the person in identifying resources that would decrease the level of fatigue.</td>
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<tr>
<td>Step 5: Implementing interventions.</td>
<td>This step is the intervention phase. Intervention can include providing direct care or serving as advocate for the patient, teaching, counselling, making referrals, or arranging for resources or services.</td>
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<tr>
<td>Step 6: Evaluating the effectiveness of inventions</td>
<td>The final step involves evaluating the effectiveness of interventions to determine if the management goals have been met using the previously established criteria. In chronic illness, success is often measured as progress toward change rather than actual change.</td>
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### IMPLICATIONS OF THE STUDY ON NURSING CURRICULA AND NURSING PRACTICES

Knowledge of the nurses’ implementation of the nurse education theory into practice provides insight to planners and nurse educators to design curricula and programmes on chronic care nursing that are effective. Nurse educators must be informed concerning required curricula reform and how to effectively prepare the future nursing workforce for care for the chronically ill patients.

### REFERENCES

8. Smeltzer S.C and Bare B. G., (1996), Brunner and Suddarth’s Textbook of Medical-Surgical


