Physical Access for Persons with Disability in Rented Houses in Kumasi, Ghana: Evidence from Compound Houses in Selected Neighbourhoods in the Metropolis

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Abstract

A compound house is a single or multi-storey structure with suites of single-banked rooms (single room or chamber and hall units²) that can be accessed from an unroofed square, circular or rectangular courtyard or sometimes without a courtyard. This study examines the level of accessibility of compound houses in Kumasi as well as the reasons for landlords' inability to comply with the accessibility provisions of Persons with Disability Act, 2006 (Act 715) of Ghana. Stratified and convenience sampling techniques were adopted in selecting the landlords and compound houses in the study neighbourhoods. A total of 225 compound houses were selected for the study. Using interviews as a means of collecting data from the sampled landlords, our conclusion suggests that more than 90 per cent of compound houses are not accessible to persons with disability, particularly those with mobility impairments. Lack of awareness of the law and financial constraint are the main reasons for landlords' inability to comply with Act 715. It is recommended, amongst others, that accessibility guideline that specifies the level of access for PWDs be enacted.

Keywords: persons with disability; compound house; accessibility; rental housing

1. Introduction

Studies have indicated that persons with disability (PWDs) constitute the largest minority in the world (United Nations Enable 2014; Ghana Statistical Service 2012). It is in this regard that the Persons with Disability Act, 2006 (Act 715) of Ghana, the Constitution of Ghana and the United Nations Convention on Rights of Persons with Disability (UNCRPD) protect the right of PWDs. These legislations mention that owners and occupiers of places and buildings to which the public have access shall provide the necessary disabled-friendly facilities that will make such buildings and places accessible to PWDs. Such owners and occupiers include those who provide accommodation, financial, health, religious, legal and educational services among others. This paper examines landlords' provision of physical access by PWDs in compound houses in Ghana.

Disability research has shown that the built environment in Ghana is generally inaccessible to PWDs. Past studies have argued that buildings of public tertiary institutions in Ghana (Ansah and Owusu, 2012), the Supreme Court, the National Theatre, the Accra International Conference Centre, the Independent Square and the Parliament House (Danso et al, n.d.) are not accessible to PWDs. Adjei (2013) has attributed the non-compliance of the provisions of Act 715 to factors such as the lack of commitment by government to disability issues, negative societal perception of the disabled and the poor implementation structure of the Act among others. Hashim et al. (2012) argued that owners and occupiers of public places are reluctant to provide disabled-friendly facilities because of the additional cost of upgrading existing facilities to cater for the convenience of PWDs. Even for some of those who have complied with the provisions of Act 715, Amos-Abanyie et al (2012) has found that there are several shortcomings with their ramp features as well as landing and handrail provisions.

Whiles the few existing literature has sought to identify public buildings or places that are not accessible to PWDs, the reasons for the non-compliance of the Act and the deficiencies with facilities provided for disabled access, relatively little attention has been given to access for PWDs in rented houses in Ghana. This paper adds to the literature on disability and accessibility, with a focus on compound houses, which constitutes the largest share of house types in Ghana (Ghana Statistical Service, 2012). This paper is particularly important because physical access to housing is extremely important for all persons to freely participate in all facets of society and PWDs are no exception (United States Agency for International Development [USAID], 2013). More so, as the August 2016 deadline set by Act 715 for all owners and occupiers of public buildings and places in Ghana to comply with its provision is fast-approaching, disability issues will become topical in the coming years. Therefore, it is timely to find out the reason(s) most rented houses in Ghana are not accessible to PWDs. The paper examines the reasons for the non-compliance of Act 715 by landlords. The rest of the paper is organized as follows. Section two reviews existing literature on the concept and models of disability; the nature of compound houses in Ghana; the accessibility deficiencies in housing; and the accessibility provisions in disability

²A kind of unit in compound houses with two rooms, one serving as a bedroom and the other a hall

legislations in Africa and international conventions. Section three gives a description of the study area and research methodology. Section four presents and analyses the data gathered. The conclusion and recommendations are presented in Section five.

2. Understanding Persons with Disability

According to Little (2003), there is no one standard definition of disability. They range from narrow to broad, medical to social, from the one intended to integrate them in society to the other that excludes and segregate them (Dias, 2013: 36). This paper adopts the social model definition provided in Section 59 of Act 715. The Act defines a PWD as an individual with a physical, mental or sensory impairment including a visual, hearing or speech functional disability which gives rise to physical, cultural and social barriers that substantially limits one or more of the major life activities of that individual. In Ghana, PWDs have been categorized into visual impairment, hearing impairment, physical impairment, intellectual impairment, emotional/behavioral impairment and other forms of impairment (Ghana Statistical Service, 2012). Though the categorization is quite broad, examples that come to mind when disability is mentioned constitute wheelchair users, people with crutches, blind persons and deaf and dumb persons among others. However, the World Health Organization (2011) and Dias (2013) have been quick to draw our attention to the fact that PWDs are diverse and heterogeneous and that only narrow-minded views of disability emphasize these examples. Danso et al (n.d.) and Hashim et al. (2012) give examples that fit into the argument of diversity of PWDs. According to them, a child, a pregnant woman, an injured person, a sick person, an elderly person, a parent with a pram etc are all disabled in one way or the other. This paper takes the stance of diversity that gives room for all forms of disabilities that restricts an individual from performing an activity in a manner that is considered normal for persons without disability.

Kadir and Jamaludin (2012) have suggested that in order to understand the complex attributes of disability, it will be ideal to examine the two main models of disability. These constitute social and medical models. The social model emerged in the 1970s as a response to the deficiencies of the medical model (Mackie 2011), which purports that disability is a personal medical problem caused by an accident, ailment or some other health condition and can be ameliorated by medical intervention such as rehabilitation or some medical treatment (European Commission, 2002). In this regard, the medical model proposes that disability policy should focus on providing cure or treatment for physical and/or intellectual impairments, in the belief that PWDs wish to be normal (Lang 2009). The medical model is generally believed to present a stereotypical and myopic view of disability as earlier indicated by Dias (2013). It is against this backdrop that the World Health Organisation (2011: 28) and Kadir and Jamaludin (2012) have suggested an ideological transition from an individual, medical perspective to a structural, social perspective that views disability as caused by social barriers such as inaccessible environment and the lack of support from society. The social model has considerably influenced disability debates on access to education and health service (Croft, 2012; Rooy et al., 2012). This paper extends the debate to how the social model influences access to housing for PWDs. The paper is based on Evcil (2012)'s social model perspective that PWDs are disabled in an inaccessible environment or that of the World Health Organisation (2011: 28), which argues that 'inaccessible environment create disability'.

An inaccessible environment or better still denying PWDs access to public buildings and places means cutting off a significant proportion of society from normal life (Kaufman-Scarborough, 1999). This is because PWDs are the world's largest minority group (Naami et al., 2012). It is estimated that PWDs account for about 15 per cent of the global population and 8 per cent of which live in developing countries (United Nations Enable, 2014). In Africa, there is an estimated 80 million people living with some form of disability (Kamga, 2013). In Ghana, there are about 740,000 PWDs, representing 3 per cent of the total population (Ghana Statistical Service, 2012), making them the country's largest minority. Sadly, almost every study on disability gives a grimmer picture of the disability situation in developing countries. As bluntly stated in Croft (2012), PWDs are among the poorest of the poor. According to Hodgson (2013), majority of PWDs living in developing countries remain out of school and are functionally illiterate. It is also captured in the 2011 World Report on Disability that PWDs have low employment rates and lower educational attainment than persons without disability (World Health Organisation, 2011). Lamichhane and Okubo (2014) believe that though a number of reasons account for the poverty among PWDs in developing countries, poor access to education and inadequate employment opportunities stand out as the major factors. Such statistics and facts present us with a stark image of life for PWDs living in poverty, especially in developing countries (The Irish Association of Non-Governmental Development Organisations, 2010).

3. The Nature of Compound Houses in Ghana

Studies have indicated that most of Ghana's urban population lives in rented houses (Gough and Yankson, 2011). In Accra, for example, about 64% of households rent accommodation whiles about 75% of households in Kumasi live in rented houses (Grant and Yankson, 2003; Tipple and Korboe, 1998). These rented houses include

separate houses, semi-detached houses, flat/apartments, compound houses, huts, tents, kiosks and container amongst others (Ghana Statistical Service, 2012). Statistically, separate houses and compound houses constitute the majority of housing in Ghana with a proportion of 28.7% and 51.5% respectively. As earlier indicated, the paper focuses on compound houses as the commonest type of rented houses in Ghana. It is a type of informal housing provided by private individuals in Ghana. By its nature, a compound house is a single or multi-storey structure with suites of single-banked rooms (single room or chamber and hall units³) that can be accessed from an unroofed square, circular or rectangular courtyard or sometimes without a courtyard (Awanyo, 2009). Where it is a multi-storey compound house, a staircase is provided in the courtyard to give access to the units on the upper floor(s). Figure 1 shows the architecture of a typical compound house in Ghana. Occupants of compound houses share a common bath, toilet, drying lines, water taps, electricity and an open space or courtyard that is used for cooking, as children's playground and for family gatherings such as funeral or naming ceremonies (Awanyo, 2009; Mahama and Antwi, 2006). Asante et al. (2015) have argued that these types of compound houses are more conventional. However they are fast undergoing a face-change as most of the units are being improved into en suite units, where there is little or no sharing of common facilities.

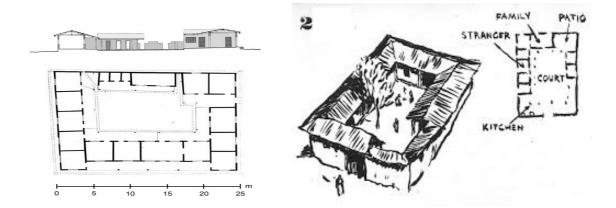


Figure 1.Plan and elevation of a typical single-banked compound house in urban Ghana

Source: Andreasen et al. (2005)

4. Accessibility Deficiencies in Housing

Whether conventional or contemporary, there are a number of houses in developing countries that are built without any consideration in terms of access for PWDs. Accessible, as used in this paper, connotes that a PWD is, without any assistance, able to approach, enter, pass to and from and make use of an area and its facilities or either of them. As a result, an accessible environment means that a person will be able to seek employment, receive education and training and pursue an active social and economic life (European Union, 2010). Many PWDs require access to specific facilities in their homes and communities in order to be full participants and to have the potential for the equivalent quality of life as persons without disabilities (Voorhees, 2007). However, Froehlich-Grobe et al. (2008), in a study on physical access in public housing facilities in United States, revealed that the environment in the houses impeded the ability of PWDs to perform activities of daily living such toileting, bathing, cooking, shopping and doing laundry; and participate in community programmes. They added that the inaccessible housing features in these houses such as narrow doorways and bathrooms, lack of grab bars near toilets or in the bathtub or the lack of maneuvering space in the kitchen poses barriers to performing selfcare routines. They further added that entry and exit to compound houses are very virtually impossible due to the lack of ramps and handrails. Consequently, Smith et al. (2008) have indicated that PWDs living in houses, lacking adequate accessibility features, are likely to suffer marginalization and hence negatively affecting their health, self-esteem and life satisfaction, three factors critical to successful living. By way of contribution to literature, this study reveals the level of accessibility in compound houses in Ghana.

³A kind of unit in compound houses with two rooms, one serving as a bedroom and the other as living area.

5. Accessibility Provisions in Disability Legislations in Ghana and International Conventions

Almost every disability law and convention has a provision on accessibility for PWDs. Examples are Sections 6 and 7 of Ghana's Persons with Disability Act, 2006 (Act 715); Schedule 3.4, 3.8.3, 3.8.4 and 3.8.5 of Namibia's National Policy on Disability; Section 8 of Nigeria's Nigerians with Disability Decree 1993 and Article 9(1) of the UNCRPD. The import of these provisions has been to ensure that the built environment is accessible to all users, irrespective of their disability. Perhaps, this is because accessibility is increasingly being acknowledged as the measure or standard for a high quality, efficient and sustainable built environment (Soltani et al., 2012). Jamaludin and Kadir (2012) and Evcil (2012) believe that the growing interest in the provision of accessibility for all is the recognition that PWDs need to participate in social, economic and communal activities without being left out or discriminated against.

In Ghana, the fact that Article 29 of the 1992 Constitution is dedicated to disabled persons indicates that disability issues have been on the 'national agenda' for more than two decades. Drafters of the Constitution acknowledged the fact that Article 29 alone was not comprehensive enough to protect the rights of PWDs in Ghana. This explains why the last section of Article 29 mandated the Parliament of Ghana to enact laws to ensure the enforcement of the other provisions of the Article. However, it took 13 years, after the coming into force of the 1992 Constitution, before the political and civil entitlements of PWDs were legally recognized (Oduro 2009, 628). Being the largest minority in the world and in Ghana, the voice of PWDs could only be ignored for a while. The outcome of the long struggle was the passage of the Persons with Disability Bill into an Act and hence the Persons with Disability Act, 2006 (Act 715). Since then, it became a statutory requirement to provide facilities that facilitate PWDs' access inside and outside public buildings and places (Kamarudin et al. 2012).Section 6 of Act 715 stipulates that:

the owner or occupier of a place to which the public has access shall provide appropriate facilities that make the place accessible to and available to and available for use by a person with disability

Section 8 stresses the binding nature of Section 6 of Act 715 and it reads:

a person who contravenes Section 6 commits an offence and is liable on summary conviction to a fine not exceeding fifty penalty units or to a term of imprisonment not exceeding three months or to both.

To ensure timely implementation of its provisions, Act 715 concludes with Section 60, which states that: the owner or occupier of an existing building to which the public has access shall within ten years of the commencement of this Act make that building accessible to and available for use by a person with disability.

It is important to admit that having a provision such as section 6 of Act 715 is a step in the right direction. However, this paper suggests that section 6 is too general because it does not specify the key thematic areas where accessibility for PWDs is strongly and urgently desired. Clearly, this is a clear indication of where the Act 715 falls short of the United Nations Convention on Right of Persons with Disability (UNCRPD). For instance, Article 9(1) of the UNCRPD states that:

... the identification and elimination of obstacles and barriers to accessibility, shall apply to,

inter alia: (a) buildings, roads, transportation and other indoor and outdoor facilities,

including schools, *housing*, medical facilities and workplaces ...

Moreover, Section 6 of Act 715 leaves room for doubt as to what really constitutes public place or building. This has been attributed to the absence of the legislative instrument that is needed to provide further detail about certain key provisions in Act 715 and hence PWDs are unable to enjoy the benefits that Act 715 is expected to offer (Mensah et al., 2008). Nevertheless, Article 9(1) is applicable in Ghana because the state has ratified the UNCPRD. For the purpose of this study, compound houses, which have rented units available for rent to the general public, is a public building as construed in Section 6 and thus the owners of such houses are expected under Act 715 to provide disabled friendly facilities.

6. Study Area and Research Methodology

This study was conducted between May to August, 2015 in Kumasi, Ghana. We found Kumasi as a suitable study area because it represents the largest share of compound houses in the country(20.4%) as per census figures. As per the 2010 Population and Housing Census, the Ashanti region also has the highest share of about

125,000 PWDs (Ghana Statistical Service, 2012). The census further revealed that the region has 16.9% of all houses in the country. Kumasi is the capital city of the region and represents the largest share of PWDs and compound houses as explained above. The researchers randomly selected three (3) urban neighbourhoods (Kwadaso, Asokwa and Bantama) in Kumasi as the study areas for this paper. These neighbourhoods have populations of about 251000, 140000 and 260000 respectively (Ghana Statistical Service, 2012). The average household size at Kwadaso, Asokwa and Bantama are **4.0**, **3.8** and **3.8** respectively (Ghana Statistical Service, 2012). Figure 1 shows the location of the study areas.

The study adopted the mixed method approach in terms of methodology. In line with this the researchers used a semi-structured interview guide that gave a good balance of open and close ended questions. This data collection technique has the advantage of freedom to probe various areas and to raise specific queries during the course of the interview (Naoum, 2007). Stratified and convenience sampling techniques were employed to select the landlords and compound houses in the study neighbourhoods. A total of 225 compounds houses were selected from the three neighbourhoods understudy. In each compound house, the landlord was interviewed.

The interviews focused on the awareness level of Act 715 and rationale for landlords' inability to comply with the accessibility provision of Act 715. The noted issues from the interviews were collated into three (3) groups corresponding to the three neighbourhoods from which data were collected.

In addition to the primary data, secondary data was gathered by reviewing existing literature that hinge upon the theme of this study. Due to the fact there is no legislative instrument for Act 715 detailing the guidelines for accessibility in public buildings and places, this paper adopted the architectural design considerations of the United Nations Design Manual for a Barrier Free Environment as a standard to assess the level of accessibility in compound houses in Kumasi (United Nations, 2003). We found these design considerations suitable because Ghana has been a member of the United Nations since independence. These design considerations was applied to six (6) selected facilities for disabled access into a building or place. These constitute ramp, stairs, entrances, doors, corridor and verandah and washrooms (See Tables 1 and 2). For the purpose of this study, the focus was on accessibility for persons with mobility impairments such as wheelchair users, persons with crutches and blind persons. Put together, persons with physical challenges and visual impairments constitute 65.5% of all PWDs in Ghana (Ghana Statistical Service, 2012).

Adopting content analysis advanced by Powell and Renner (2003), abbreviations (codes) were assigned to responses from landlords interviewed. This aided in summarising data into emergent coherent categories and themes with emphasis on agreement and disagreements between the various landlords drawn from the three selected neighbourhoods. Broader categories were sub-divided into sub-categories to allow for a greater differentiation and similarities. This paved the way for quantitatively counting the number of times a particular theme or category comes up by so doing establishing a general pattern from the data collected. This aided in presenting and analysing the data using frequency distribution (tabulation), measurement of central tendency (mean) and the relative importance index (RII). It has been argued in Tawil et al. (2013) that mean alone is not reliable statistics for assessing overall ranking of attributes. They, therefore, suggested that the RII can be a good check because it gives a direct descriptive interpretation of the most critical factor(s). In this study, we used the two statistical tools to rank the level of accessibility of compound houses and landlords' reasons for noncompliance of the accessibility provision in Act 715. Respondents were asked to score the reasons on an ordinal or likhert scale of 1 to 5 where '1' is strongly disagree, '2' is disagree, '3' is neutral, '4' is agree and '5' is strongly agree. Based on the various scores provided by landlords, it was possible to analyze and rank them accordingly, as seen in Table 4 and 6. These rankings made it possible to compare the relative importance of the reasons as perceived by the landlords (Megha and Rajiv 2013).

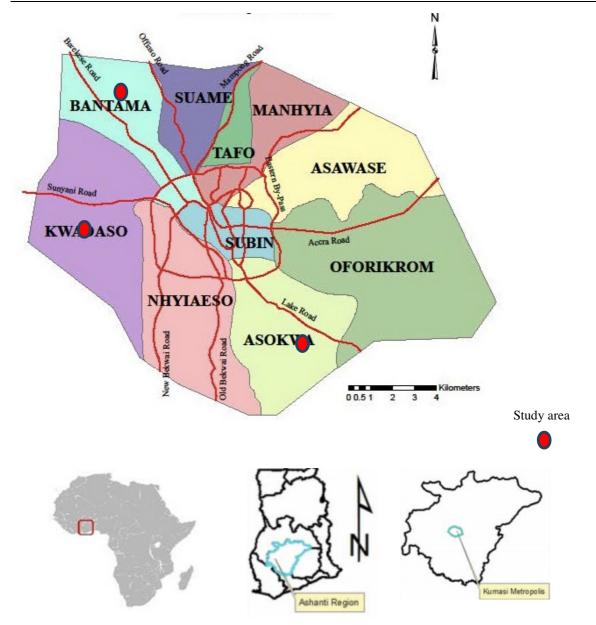


Figure 1. A Map indicating the Study areas in Kumasi Source: Ghana Statistical Service

Mean =
$$\sum \frac{fx}{f}$$

Relative Importance Index (RII) = $\frac{1n_1 + 2n_2 + 3n_3 + 4n_4 + 5n_5}{5(n_1 + n_2 + n_3 + n_4 + n_5)}$

Where n_1 = The number of respondents who answered 'strongly disagree'

 n_2 = The number of respondents who answered 'disagree'

 n_3 = The number of respondents who answered 'neutral'

 n_4 = The number of respondents who answered 'agree'

 n_5 = The number of respondents who answered 'strongly agree'

FACILITY	DESCRIPTION	DESIGN CONSIDERATIONS
RAMP	A walking surface which has a running slope greater than 1:20 (American with Disability Act, 2002). A ramp is usually provided where stairs obstructs the free passage, mainly wheelchair users and persons with mobility problems.	A ramp must have handrails and kerbs as well as landings at top and bottom and at changes of direction and at intervals along its length. It must have a minimum width of 0.90m. Landing must have a minimum length of 1.20m. Protective handrail of at least 0.40m high must be placed along the full length of ramps. Surface of ramp should be hard and non-slip.
WASHROOMS	Washrooms must provide sufficient accessible space, with all fixtures and fittings being within easy reach.	Turning circles of 1.50m diameter are recommended inside the washrooms to allow for full-turn maneuvering of a wheelchair user. The ease of transferring from a wheelchair to a toilet seat or bidet depends on whether the user uses the parallel, diagonal, perpendicular or frontal approach. In any shared residential house, at least one unisex washroom should be accessible to a wheelchair user. Washrooms must not have doorsteps. The gradient of the floor should be as low as possible. Washroom floors should be well- drained and provided with adequate waterproofing.
STAIRS	Stairs provide safe and well-dimensioned staircases for the comfort of all people, especially those with mobility problems.	The differences in level should be illuminated or minimized as much as possible for the comfort of PWDs. All steps should be uniform. The minimum width should be 0.90m and 1.50m for one-way and two-way traffic respectively. For indoor stairs, the maximum riser should be 0.18m and the minimum thread should be 0.28m. For outdoor stairs, the maximum riser should be 0.15m and the minimum tread should be 0.30m. A stair must have handrails installed on both sides. The length of landing should be at least 1.20m. Nosing should flash or rounded.
Source: A depted from I		Toundea.

Source: Adapted from United Nations (2003)

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Table 2. Standard re	quirements for entrance	, door and circulator	y areas in buildings

FACILITY	DESCRIPTION	DESIGN CONSIDERATIONS
ENTRANCE	An entrance is an access point to a building or portion of a building or facility used for the purpose of entering.	Entrances must be accessible and easy-to-find. At least one entrance per facility should be accessible to wheelchair user. Each accessible entrance should be connected by accessible pathways to accessible indoor or outdoor parking area or stops. In multi-storey buildings, the accessible entrance should permit access to a conveniently accessible elevator, stair or lift.
DOOR	A door is meant to facilitate the passage of a user. Accessible doors should be so designed as to permit operation by one person in a single motion with little effort. Power-operated doors are the best for PWDs, with the activator placed within reach.	An accessible door should have a door handle, an extra pull handle and a kick plate. Door handle and lock must be located at height between 0.90m and 1m. Kick plate must be between height 0.30m and 0.40m from floor. Minimum door opening is 0.90m and 0.80m for exterior and interior doors respectively. For double leaf, at least one leaf should have a minimum clear width of 0.80m.
CORRIDOR and VERANDAH	Corridors and verandahs are provided to facilitate the passage and maneuvering of a user. Wide corridors and verandahs are useful for wheelchair	The unobstructed width of a low- traffic corridor should not be less than 0.90m. Floor surfaces should
Source: Adapted from I	users, service equipment and high traffic areas.	be non-slip and even.

Source: Adapted from United Nations (2003)

7. Results and Discussion

7.1 General Characteristics of Selected Compound Houses in the Study Areas

Table 3 shows the characteristics of compound houses in the three selected neighbourhoods comprising Kwadaso, Asokwa and Bantama. A total of 225 compound houses were selected and the landlords of these houses were interviewed. We found that the average age of compound houses in the selected neighbourhoods is 50 years, indicating that most of the houses were built before Act 715 was passed. In the context of Act 715, the age of a house is no excuse for non-compliance of its accessibility provision. In other words, all buildings, built pre or post-2006, to which the public has access must be modified to make them accessible to PWDs. Rented units in compound houses also averaged 11. These units constituted single rooms (a bedroom with shared toilet, bath and kitchen), chamber and hall (bedroom, hall with shared toilet, bath and kitchen), single room selfcontained⁴ (bedroom, kitchen, bath and toilet) and chamber and hall self-contained (bedroom, hall, kitchen, toilet and bath). By the nature of these units, we observed that PWDs would be comfortable in the self-contained units than the ordinary units where they have to share some space or facility with other tenants. Over 65% of compound houses in the selected neighbourhoods were at least two storey buildings. We found no elevators in the entire compound houses observed; implying that PWDs were restricted to the ground floor only as also observed by Soorenian(2013) or have to contend with the inconvenience of climbing stairs every day. Findings also indicated that more about 70% of all compound houses had units that had been let out to tenants for more than 30 years. We found that 171 landlords, representing 76%, have never had disabled tenants whiles the remaining 24% have had disabled tenants. However, at the time of data collection, 91% of landlords had no disabled tenants. The study will, in subsequent sections, indicate why most landlords had no disabled tenants. In compound houses where there were disabled tenants, they comprised mainly mobility impaired persons such as wheelchair users and persons with crutches.

⁴ It is a kind of en suite accommodation. It comes in two types. The single room self-contained has an en suite accommodation with a kitchen whiles the chamber and hall self-contained is en suite with a hall and kitchen. Households in self-contained units share very little facilities with other households within the same house.

Table 3. Characteristics of com	pound houses in Kwadaso, Asokwa and Bantama
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CHARACTERISTIC	NE	TOTAL		
	Kwadaso	Asokwa	Bantama	(n=225)
Number of Selected Compound Houses	75	75	75	225
Number of Storey's in Compound Houses				
Single storey	42	11	22	75
Two storey	18	53	34	105
Three storey	15	11	19	45
Age of Compound House	Range			
	1	Average 50 year	S	
Number of Rented Units in	Range			
Compound Houses				
Years of Letting Units in Compound Houses				
> 10 years	4	6	0	10
10 to 20 years	7	15	0	22
21 to 30 years	16	18	6	40
31 to 40 years	23	12	24	59
> 40 years	25	24	45	94

Source: Field Survey (2015)

7.2 The Level of Accessibility in Compound Houses in the Selected Neighbourhoods

Section 6 of Act 715 states that, all buildings to which the public has access must be accessible to PWDs. It must be noted that accessible, as used in this paper, connotes that a PWD is without any assistance able to approach; enter; pass to and from; and make use of an area and its facilities or either of them. One objective of this study was to examine the level of accessibility of compound houses in Kumasi. As earlier indicated, we adopted the United Nations Design Manual for a Barrier Free Environment (2003) as the standard requirement to measure the level of accessibility in compound houses. Generally, findings revealed that virtually all compound houses have one or more deficiency in terms of accessibility for PWDs. In fact, more than 90 per cent of all compound houses are not accessible to mobility impaired persons. As seen in Table 4 below, no compound house in the selected neighbourhoods had a ramp. Therefore, all changes in floor level, in and out of the houses, were accessible by only stairs, which were either too steep, had uneven steps or unrounded nosing. Majority of stairs did not have handrails installed on both sides. This is obvious from Figure 2. It can be deduced from Table 4 that more than 80 *percent* of compound houses had stairs that were inaccessible to PWDs because it did not meet the United Nations standard that a stair should have uniform risers and threads, handrails and rounded nosing.



Figure 2. A stair in one of the compound houses in the selected neighbourhoods Source: Field Survey (2015)



Figure 3. An entrance of one of the compound houses in the selected neighbourhoods Source: Field Survey (2015)

Figure 3 clearly indicate that accessibility for PWDs was equally poor at the main entrances of compound houses. Though easy-to-find, about 80% of the main entrances are inaccessible by United Nations standards in Table 2. We found that the same entrance is expected to be used by all tenants, irrespective of their disability. Where there was more than one entrance, no provision was made for PWDs. This contradicts international standards that at least one entrance must be accessible to PWDs. The situation is even more serious with compound houses that abut a street, minor or major roads. Accessibility to these houses was either by an inaccessible stair or a 'jump over a drain or gutter'. PWDs risk coming into contact with vehicles plying the road or street. In multi-storey compound houses, entrances were not in close proximity to the staircase as required by the United Nations standards.

With respect to the doors, most of them were accessible with some assistance. Though these doors have handles, they were not within easy reach of PWDs and also quite narrow. In contrast to the United Nations standards, most of the door handles were located at a height of at least 1.3 meters. This is because, in a number of compound houses, stairs were provided at the entrance to the rooms (see Figure 4) and hence PWDs (especially wheelchair users) may require assistance to open the door. This is the reason about 60% of doors in compound houses were found to be accessible with aid, as shown in Table 4.In summary, it can be concluded that the lack of zero-step entrances and narrow doorways in compound houses poses a challenge to PWDs' quest to reside safely and comfortable in these houses (Smith et al. 2008).



Figure 4: Doors in one of the compound houses in the selected neighbourhoods Source: Field Survey (2015)



Figure 5: Bathroom in one of the compound houses in the selected neighbourhoods Source: Field Survey (2015)

Washrooms in compound houses, were generally, sited at a distance from the units or rooms (see Figure 5). We found that in some houses, tenants had to use a stair or doorsteps to get access to the washrooms, which contradicts the United Nations standards that washrooms must not have doorsteps. We must admit that most compound houses met the 1.5m diameter for easy maneuvering in a washroom. However, we found that some of the washrooms had no doors. Accessibility for mobility impaired persons in this kind of washroom may be a challenge because there is no handle to aid access into the space. In contrast with the United Nations standards (see Table 2), majority of the washrooms were also finished in screed and not well-drained and as such could be slippery for PWDs. Lastly, circulatory areas such as corridors, verandah and the open courtyard in compound houses were accessible with some assistance. Like other areas in house, tenants would have to use stairs to access circulatory areas. In a nutshell, it can be concluded that the physical space in compound houses in Kumasi have been created or designed without taking PWDs' access needs into account and therefore reducing their mobility within the house (Soorenian, 2013; Mackie, 2012).It has also been argued by Smith et al. (2008) that PWDs lacking adequate accessible features, as is the case in Kumasi, face a greater risk of injury due to falls than those living in units with adequate features.

rable 4. Measuring the level of accessionity of features in a compound houses						
FEATURE	Easily Accessible	Accessible with aid	Inaccessible	Not available	RII	
	(4)	(3)	(2)	(1)		
Ramp	0	0	0	225	1.00	
Main Entrance	12	34	179	0	0.56	
Doors	28	131	66	0	0.71	
Stairs	15	27	183	0	0.56	
Washrooms	45	84	96	0	0.69	
Corridor/Verandah	42	111	72	0	0.72	

Table 4. Measuring the level of accessibility of features in a compound houses

Source: Field Survey (2015)

Though we have argued above that compound houses are generally inaccessible, we found, per the RII computed in Table 4, that the doors and circulatory areas are most accessible features. These features attracted such a high RII due to the fact that majority of them are accessible with assistance. In majority of compound houses, the main entrance is considered the least accessible feature. This shortfall in the design of compound houses has major implications for the lives and well-being of persons with mobility impairments and/or who are dependent on the use of wheelchair or crutches (Imrie, 2004).

7.3 Landlords' reasons for non-compliance of the accessibility provision in Act 715

Study findings revealed the main reason for non-compliance of Act 715 was the low level of awareness among landlords of compound houses in Kumasi. Researchers have argued that many developing countries do not have disability legislations (Kamarudin et al. 2012). Even in countries where disability-related legislations exist, the efficacy of such legislations is often hindered by the lack of public awareness (Guernsey et al., 2007). Ghana is yet to address the need 'to adopt immediate, effective and appropriate measures for awareness-raising regarding the rights of PWDs' (Gyamfi, 2013: 227).

ITEM	N	TOTAL		
	Kwadaso	Asokwa	Bantama	
Level of Education				
Up to Primary School	15	13	25	53
Up to Junior High	18	9	14	41
Up Senior High	21	12	15	48
Up to University	9	20	6	35
Not educated	12	21	15	48
Awareness of Act 715				
Those aware	12	4	6	22
Those unaware	63	71	69	203

Table 5: Landlords Level of Education and Awareness of Act 715

Source: Field Survey (2015)

As indicated in Table 5, findings revealed that 203 (representing over 90%) out of 225 of landlords interviewed for this study have no idea of Act 715 and/or the constitutional provision on disability. For the few highly educated respondents (up to university) who claimed to know of Act 715 could not mention any of its provisions or the specific constitutional provision that protect the rights of PWDs in Ghana. This may explain why the majority of landlords of compound house do not know that they are mandated by Act 715 to provide disabled-friendly facilities to make their houses accessible and rentable to PWDs. Notwithstanding the low level of awareness, majority (97%) of landlords admitted that the accessibility provision in Act 715 is 'very important'. In support of this response, they added reasons such as '*PWDs are human*' and '*deserve to be housed just like non-PWDs*'. Other landlords commented that '*PWDs will pay the same rent as non-PWDs and as such making buildings accessible will widen the rental market*'. Furthermore, our findings revealed that none of the landlords know of the 10 years or August 2016 deadline stipulated in Act 715. Therefore, one can conclude that majority of these landlords will be caught unaware by the Act and will be '*liable on summary conviction to a fine not*

exceeding fifty penalty units or to a term of imprisonment not exceeding three months or both'. The question is: considering the fact that virtually all landlords of compound houses in Kumasi would have flouted the law, can the state prosecute them all? Can the state prosecute landlords for non-compliance of the accessibility provision of Act 715 when Danso et al. (n.d.) have found that the Supreme Court of Ghana is not accessible to PWDs? These and many more questions would have to be addressed in August 2016 when the deadline would have elapsed.

Apart from the low awareness of Act 715, we deduced, as indicated in Table 6, that the additional cost of providing disabled friendly facilities in buildings as one of the main reasons landlords have not been able to comply with the accessibility provision in Act 715. This confirms the assertion by Hashim et al. (2012) that owners and occupiers of buildings have not provided disabled friendly facilities because of the cost involved in providing such facilities. They consider providing such facilities as imposing undue financial burden on them. Landlords are more preoccupied with providing accommodation for anyone with the ability to pay rent in advance⁵ than meeting the mandatory requirement of providing disabled friendly facilities that will ensure diversity or longer term flexibility (Harrison 2004). More so, the multiple ownership of compound house was another key reason for the non-compliance of Act 715. In a number of compound houses we visited, there was more than a solitary landlord, evidence from the field survey suggested that such multiple ownership were mainly due to inheritance. The respondent landlord, in all cases, admitted that any modification to the building must be done in consultation with his/her siblings and hence the reason compound houses have not seen any modification. Other landlords were quite emphatic that they do not intend letting out their properties to PWDs and as such there is no need to provide disabled friendly facilities. According to them, the accessibility provision can be implemented to the latter if the state provides landlords with some financial assistance to provide disabled friendly facilities. In summary, the three main reasons landlords gave for the non-compliance of Act 715 constitute financial constraints, multiple ownership and unwillingness to provide facilities to ensure easy access for PWDs.

	LIKERT SCALE							
LANDLORD REASONS	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean	RII	Rank
	(1)	(2)	(3)	(4)	(5)			
As per the current state of the building, I am not breaking any law	33	84	21	30	57	2.97	0.59	5
The additional cost of providing disabled friendly facilities	9	15	21	69	111	4.15	0.83	1
The compound house cannot be modified to make disabled friendly	18	87	15	75	30	3.05	0.61	4
Limitations due to provisions in the lease agreement covering the land	63	105	45	0	0	1.71	0.34	6
Multiple ownership, as to who the final responsibility lies	15	63	15	102	30	3.31	0.66	2
I do not intend giving it out to PWDs and hence no need to make buildings disabled friendly	75	9	21	39	84	3.25	0.65	3

Table 6. Landlords' other reasons for non-compliance of Act 715

Source: Field Survey (2015)

⁵It is a lump sum paid by a tenant to a landlord on commencement of a lease that entitles the tenant to no rent payment for the duration so agreed between both parties. In Ghana this duration is usually between 6 months (maximum duration acceptable by law) and 3 years. In some cases this payment enables landlords to make capital improvements to subject properties or pay for capital expenditure. It also guarantees security to a regular income on the part of the landlord

8. Conclusion

This paper has shown that majority of compound houses in Kumasi are not accessible to PWDs. We found that the doors and circulatory areas are the most accessible areas in compound houses whiles the main entrance is the least accessible to mobility impaired persons. Landlords attributed the general non-compliance of the accessibility provision of Act to reasons such as the low awareness of Act 715; the extra cost of providing disabled friendly facilities; multiple-ownership of compound houses; and unwillingness of landlords to modify their houses to meet the needs of the PWDs. This paper recommends that government must as matter of urgency enacts accessibility guidelines that specify the level of access required for PWDs. The government must also raise awareness of the provisions of Act 715 and apply sanctions to non-conforming landlords to ensure a barrier free environment for all. The National Building Regulations 1996 (L.I. 1630) should be amended to cater for the needs of PWDs in new rental housing facilities. The researchers recommend further research to focus on the cost implication of modifying compound houses to make them accessible to PWDs. It will also be interesting to consider the views of PWDs who live in compound houses to understand how they are able to participate in social and economic activities.

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