

AIDS Brief

for professionals

Architects



The spread of HIV/AIDS is having a major impact on the economies of the world, in particular those of developing countries. This impact is realised across a wide range from individual households, to the macro-economy of a nation. While steps are being taken to halt the spread of the virus and scientists are engaged in the development of vaccines, the true impact of the epidemic has not as yet been revealed.

The purpose of this Brief is not to explore the impact HIV/AIDS will have on infected workers within the architectural field, nor the effect this will have on their productivity and output. However cognisance should be taken of such impacts within areas where these skills are in short supply. The Brief does aim to show the probable consequences the epidemic will have on the provision of building types for the community, and highlights the need for a reassessment of both government and provincial policies on building procurement and delivery.

Consequently, an awareness and understanding of the implications this epidemic has on the built environment is of prime importance to Architects and associated Consultants. Finally, the Brief suggests a means of dealing with the resultant impact of AIDS on Architecture.

BACKGROUND

The professions of Architecture and its allied disciplines have the unique responsibility of creating and guiding the construction of practically all the buildings and housing activities performed by the various sectors of the community.



Architecture, in pure terms, is centred around the creation of a structure, shelter or space. It is the Architect's role to formulate a brief together with a Client, and encapsulating the latter's intentions, conceive a design. Through documentation in drawn and written form, incorporating detailing and specification, the concept is developed into working drawings suitable for tendering and construction purposes. Once the project proceeds onto the building site, the Architect controls the Client's interests, through regular site inspections and meetings with the project team, ensuring that the design is constructed accurately and that standards of workmanship are acceptable.

The nature of architectural projects is such that a degree of time lapse occurs between the

initial briefing and the handing over of the completed project to the Client. This may range from a few weeks to a number of years. Of difficulty in the latter instance is that Architects are required to plan for the future in an ever-changing and somewhat uncertain environment. The impact of HIV/AIDS will further complicate this situation.

The changing role of the Architect

The traditional role of the Architect has been one of Team Leader in the design team, controlling proceedings within a project and overseeing and liaising with the other Consultants in the team. Recent trends have seen this role eroded by the birth of the Project Manager, who, where employed, takes on the

role of Project Coordinator. While this reduces the Architect's role as "policeman", ensuring that the deadlines of others in the team are met, it in no way reduces the liaison that is needed between the Architect and the other Consultants.

Architectural workers

The exposure to HIV for the Architectural worker under normal circumstances would be no greater than for any other professional person. However, the risk of contracting HIV may be increased due to:

- work performed away from the home/office e.g. contract work and site supervision;
- attendance at certain promotional launches or functions of a marketing nature.

KEY ELEMENTS

Depending on where they practise, most Architects may not yet have been faced first-hand with the need to incorporate AIDS-related considerations into their designs. However, this epidemic will sooner or later have a bearing on detail design and the volumes of certain building types produced by Architects. Therefore, as a major role-player in the creation of the built environment, the Architect must come to terms with the factors HIV/AIDS will bring to bear on our environment, as they are essential components of all future planning and design decisions.

While the past and present emphasis has been to provide certain building types en masse to meet the needs of the ever multiplying population, statistics show that the prevalence of AIDS in society will demand that we shift our emphasis to other building types to conform with the new accommodation requirements this epidemic will incur.

Building types under threat from the AIDS epidemic due to an increase in user numbers

Health facilities

The major burden of the HIV/AIDS epidemic will fall upon the health sector. Hospitals are already overcrowded and economic constraints restrict the extent of quality care and equipment at the disposal of medical staff. Whereas in the past, the age profile of patients within hospital care would decrease after birth and only increase again towards the more senior years, the HIV/AIDS impact will develop a new hump in the profile around the nineteen to thirty-five year age group. The increase in numbers will have an impact on present resources including staffing, beds and pharmaceuticals. The effect on the economy due to the removal of these people from the workplace is self-evident.

The general belief that HIV/AIDS specific facilities will not be frequented by affected people, due to the attached stigma, is slowly losing credibility, as with increased numbers and community awareness through educational means, there has been a broadening of the understanding and "acceptance" of the epidemic. While initial screening may be at a general community health facility or hospital, specialised care will be better dealt with by a centre with HIV/AIDS specific services.

Consideration of a) longer-term care, b) respite care and c) outpatient care are essential. The development of "Hospice type" facilities including day-care, to cater for the needs of

terminal patients, should be encouraged and appropriate state funding channelled into such centres. As the running costs of these centres are high, training of home care staff, using these centres as bases, and operating within the surrounding communities, would effect some savings.

There will also be an impact on the service elements associated with medical facilities. Increases in counselling, dispensing of pharmaceuticals, hazardous waste disposal and physiotherapy will need consideration, planning and accommodation.

Architectural input:

- Conduct a study of the functioning of organisations such as Hospice, Cancer, and Tuberculosis Associations, as examples from which to draw reference in determining successful models for the care of terminal patients.
- Consider the development of 'Home Care' centres - local control/resource facilities - enabling the care of people within their own homes and communities.

Child-care facilities

1) Children's Homes (Orphanages)

As not all babies born to HIV-positive mothers are themselves HIV-positive (although some may be infected thereafter via breast-feeding), it follows that a large percentage of children will be orphaned within the first eight years of their lives. Most of these children will require state-funded accommodation and care. The problem these orphans pose is multi-faceted. After the basic needs of housing, clothing and nourishment have been addressed, their upbringing, education and eventual placement as contributing members of society will need attention.

Few would disagree that institutionalised life is far from ideal, and that time spent within such facilities should be kept to an absolute minimum. Therefore, these child-care facilities should be viewed as temporary shelters for their wards. The governments of developing countries are hard pressed to maintain current rates of state funding and the orphan crisis will cripple overburdened coffers. There is no solution in sight for the plight of these children, and urgent attention to this matter from all quarters is required.

Possible changes to building type:

The existing model of the "children's home" will be brought into question as government-

aid cuts will require that they either seek funding from alternative donors, which may prove inadequate, or, short of closing down, restructure themselves to accommodate numbers within their means. With the increase in user numbers, either a greater number of facilities will need to be provided or a faster turnover of 'residents' will need to occur. Child Welfare authorities may be forced to relax their policies on the placement of children within foster care to relieve this situation in some way.

Architectural input:

- Research the functioning of existing orphanage facilities.
- Establish whether (area permitting) with an increase in residential accommodation, existing service elements (e.g. kitchens and ablutions) could cope with phased mealtime and washing arrangements.
- Consider the reuse of other building types e.g. vacant schools, houses etc. for conversion to suit the needs of orphanages.

2) Street Shelters

A variety of sociological causes may result in the relocation of a child from its 'family unit' to the streets, usually within a commercial centre. Whatever these causes may be, once on the streets, these children become exposed to crime, drug abuse and prostitution, whether out of necessity, peer pressure or eventual addiction. As the effects of living on the street have far-reaching physical and psychological implications, prompt rehabilitation is of prime importance.

A number of church groups, in association with local authorities, have developed safe havens for 'street children'. In most instances, disused buildings are modified to accommodate such persons in as comfortable a means as possible. Most of these facilities offer accommodation, meals and in some instances some form of education, whether it be the learning of a trade, or placement within local education systems. Essentially, it is desirable to relocate these children back into the community from whence they came, and with research into the cause of their initial departure, coupled with appropriate counselling, a reuniting of parties will hopefully occur.

Architectural Input:

- Support and facilitate the recycling of existing buildings.

Funeral parlours, crematoria and graveyards

In the light of available statistical predictions as to projected fatalities from AIDS-related illnesses, one would draw the conclusion that this is impacting on existing funeral parlours, crematoria and graveyards. Evidence of this has manifested itself in a number of countries in sub-Saharan Africa. The major impact is the increase in the numbers of deaths over a shorter period of time.

While the need for an increase in the number of the initial two building types (funeral parlours and crematoria) could be seen as favourable by role-players in that industry, the allocation of prime land for graveyards, especially within developed or rapidly developing urban precincts, could prove difficult. Many cultures and religions are opposed to the cremation process and are thus reliant on the provision of graveyards for the burial of their people.

Graveyards usually fall under the control of Local Councils, and their Urban Planners will need to take cognisance of this within their revised briefs.

Hazardous waste disposal units

The disposal of contaminated waste from facilities caring for patients with HIV/AIDS needs particular attention. Infected needles, swabs or other containers of body fluids must be isolated and securely stored. Access to areas storing such waste must be carefully controlled and, once retrieved by the designated waste vehicle, disposed of in a manner which will not cause contamination of waste handlers or members of the public.

As incineration is the usual means of disposing of this waste, planning for additional facilities should be considered, possibly on-site.

Building types under threat from the AIDS epidemic due to a decrease in user numbers

Educational buildings

Studies indicate that the majority of people found to be HIV-positive fall into two main age groups: children under the age of five and adults aged between 20-40 years.

The age for children starting formal education may vary from country to country, however five or six years of age is the most common. An increase in child mortality will reduce class numbers and could possibly lead to retrenchment of teaching staff. Conversely,

junior teachers fall into the high-risk category, and a shortage of teaching staff would impact on the entire education system. The same would apply to tertiary education. In this case, the economic impact that the disease will have on the country should be considered, as the costs of educating people through years of schooling and into tertiary education will be lost to the disease.

Possible changes to building type:

There are two scenarios within the education spectrum.

■ At worst, as the epidemic takes hold, there will be a drop-off in the numbers of children of school-going age. Classrooms could lie vacant leading to the eventual coalescence of schools in neighbouring areas. Retrenchment of staff would ensue and numbers of student teachers would be proportionately reduced.

In the interim, although numbers would be affected as children born with HIV largely die before reaching school-going age, provision would need to be made for infected pupils who attend school irregularly. Their needs in terms of access (ramps, wheelchairs, seating arrangements etc.) and comfort (provision of sick-bay, ablution accessibility etc.) require consideration, while the ongoing education of the other pupils within the school should not be impeded.

Architectural input:

- Redesign existing facilities for access by wheelchairs etc.
- Remodel vacant school buildings for new functions - possibly children's homes.
- Provide for a greater number of beds in sick-bays.

■ Should the numbers of staff succumbing to HIV-related diseases outweigh the drop-off in pupil numbers, and result in a shortage of teaching staff, the teaching duties of available staff would need revision. This could be in the form of:

- a) the grouping of classes; divisions between classrooms could be in the form of sliding screens, so opening up into larger areas as required. The increase in the teacher:pupil ratio would negatively impact upon the attention received by pupils and most existing classroom sizes could not accommodate additional pupils.
- b) staggered lessons; pupils could attend lessons in shifts, one teacher teaching the same lesson to a number of classes. This

would increase the staff workload and could negatively affect the performance and health of the teachers.

- c) locum teachers; provision would need to be made for such teaching staff. This impact may be minor, and merely involve the provision of additional lockers and seating space within staff and meeting rooms.

Architectural input:

- Design remedial construction work to existing school buildings.
- Plan expansion in new classrooms e.g. sliding screens.

Housing

While on the one hand large sectors of the population strive for some form of formal shelter in which to reside, and on the other, speculation of the numbers of predicted deaths due to the epidemic are widely variable, one might conclude that with the imminent drop in population, there will be a subsequent reduction in the need for new residential housing.

While this viewpoint is shortsighted, it highlights the fact that long-term consideration for the care of a population with a high HIV prevalence is needed. While we need to provide adequate shelter for our people, the question must be asked as to how this shelter can perform as a multi-functional element in a culture of changing needs.

The housing and comfort of terminal AIDS patients will arguably become the major front on which Architects will face the reality of the epidemic. Current hospital, clinic and Hospice facilities will not cope with the additional patient numbers, and the associated costs of patient care will cripple state and private funding. Home care (the care of patients within their own homes by family members, with regular visits by suitably qualified, medically trained persons) and day care facilities (centres where patients may be dropped off for certain hours a day or week, for care, while family members are at work), are the most viable solutions. Where entire households become infected, the community must rally to their assistance. Concerns over stigma do however prevail in some communities and this can only be overcome through education.

The explosion of the epidemic within some rural communities has necessitated that entire groups of affected people and their willing family members group together to form a cooperative coexistence in which care and support are given. It is this model that must gain support, as institutionalisation of people infected with HIV/AIDS arguably offers both a lesser quality of

life and increases the burden on local and regional government.

Other concerns are (i) the inability of families affected by AIDS to repay their home loans and, (ii) in cases where employers provide housing for workers, the provision of housing for HIV/AIDS affected staff while needing to employ and house replacement staff.

Architectural input:

- Ask the following questions of the design:
- Will the unit provided be able to perform as well if its function were altered?
- What other functions might this building type suit?
- How easily can the building be modified to suit an alternative usage and at what cost?
- Can a number of these units be successfully linked together to serve an area greater than initially conceived?
- Does the proposal engender the possibility of co-responsibility amongst residents, allow easy external access to a number of units, make provision for home-based income generation and have suitable washing facilities close at hand?

Provision of other building types

Recreational facilities

Once having taken the responsibility of caring for infected persons within our communities, we should see that they are kept mentally and physically stimulated. It is important that city planners attempt to introduce parks and recreational facilities within reasonable reach of city and sub-urban dwellers, as the 'outdoor experience' is therapeutic and an important component of a comprehensive continuum of care.

In addition, income-generating activities (IGAs) are of central importance in any care and support initiative. Poverty tends to be pervasive, and job creation and IGAs are often the prime needs expressed by people who are infected and their families. By combining AIDS facilities with youth centres, accessibility to information and preventative measures will be broadened.

Education and training

The prime method of reducing the numbers of HIV infections should be through education. Concurrently, professionals who service the population need to be trained suitably to provide for the needs of those infected by the virus. The education of architectural undergraduates at

Universities and Technikons must, as a matter of urgency, introduce design problems related to the accommodation of infected people, to acclimatise graduates to the realities of their professional obligations.

Architects in practice need to maintain an awareness of current trends with regard to the provision for Architecture for AIDS, and this can be facilitated by means of mid-career courses.

Architectural Input:

- In view of the above situations which will have a profound effect on the design and delivery of buildings, place the HIV/AIDS epidemic high on the agenda for mid-career and undergraduate architectural courses.

The construction industry

A reduced volume of work, diverted funding and a loss of trained skills, will affect the industry adversely. Indications of a reluctance to train new construction staff are emerging, as contractors fear staff losses due to epidemic. Many major construction projects have inadvertently stimulated the spread of HIV, due to workers being relocated and housed in compounds for the duration of the project.

ACTION CHECKLIST

- ✓ Am I contributing to the spread of HIV/AIDS by designing vulnerable building types e.g. single sex hostels, casinos, barracks and workers' camps on remote sites?
- ✓ Can my design present opportunities for the prevention of HIV/AIDS, e.g. murals, counselling facilities, or user-friendly spaces for affected persons?
- ✓ Does my housing design support the potential for home-based nursing for infected persons or mutual help for supervising orphans?
- ✓ Is the design flexible enough to accommodate evolving changes of use?

SUMMARY

Architects, together with their associated members in the Design Team, are increasingly being faced with the realities and complexities of HIV/AIDS, and its impact on the built environment. The needs of the past will not necessarily be the needs of the future and AIDS will make its mark on the profession.

Architects must endeavour to:

- Attain sufficient training and education on matters relating to the provision for those with HIV/AIDS;
- Creatively consider new methods of improving the accessibility to and comfort within their architecture, suited to the needs

of people living with HIV/AIDS;

- Transform their Client's attitudes to make allowance and provision for the adaptability of their buildings to suit the needs of people living with HIV/AIDS. This should include easy adaptation for future redesign and reuse.

Useful contacts

HIVNET <http://www.hiv.net>
 HEARD <http://www.und.ac.za/und/heard>
 UNAIDS e-mail: unaids@unaids.org



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