Health and Livelihood Needs of Residents of Informal Settlements in Nairobi City

Occasional Study Report 2002

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Abstract

This study was carried out to inform partners of the Nairobi Urban Health and Poverty Project (NUHPP) on the most critical health and livelihood issues facing residents of Nairobi City’s informal settlements, and identify interventions to improve child survival in these communities. The study carried out in-depth interviews and focus group discussions with mothers, community leaders, and structured interviews with service providers (both modern and traditional health providers), managers of community institutions and livelihood initiatives to understand the range of existing interventions and get their input in defining interventions for improving child health in the city’s informal settlements. Community health concerns and needs revolve around child health, environmental sanitation, and access to basic health care. Most residents depend on expensive profit-driven private health facilities, which mostly operate informally using ill-trained professionals. Health service institutions’ key needs include: operational space, qualified health personnel, and diagnostic equipment, particularly laboratory facilities. The settlements are plagued by limited and unreliable livelihood opportunities with majority of residents relying on petty businesses and casual jobs as means of generating income. Despite the existence of a large number of institutions working in the settlements, only a few are engaged in income generating activities, and the vast majority are not designed to monitor and demonstrate the impact of their programs. Access to credit facilities for community members is limited by concerns for collaterals, high interest rates, limited business opportunities and uncertainty engendered by insecure tenure systems. Institutions working in the communities face serious challenges including lack of financial resources, insecurity and lack of cooperation from the communities.
1. Background

The 21st Century will witness an unprecedented reversal in spatial population distribution whereby urban dwellers will account for a larger share of the population of sub-Saharan Africa. Between 1950 and 1990, the percentage of the world population living in urban areas increased from 30% to 43% and is projected to reach 61% by 2030 (United Nations, 1996). Urbanization trends are more pronounced for the African continent where the urban population was 15% in 1950, 32% in 1990, and is projected at 54% in 2030. Despite slow economic progress since the 1970s, African cities have experienced the fastest population growth rates in world history, at over 5% a year, and urban growth is expected to account for virtually all future population growth in Africa. While urbanization is associated with economic growth in most industrialized and some developing countries, this is not the case for sub-Saharan Africa. In its 1999/2000 World Development Report, the World Bank concluded that industrialization did not accompany the African urban boom. Between 1970 and 1995, African urban population grew by 4.7% per year, while GDP dropped by 0.7% (World Bank, 2000).

As a result of the ongoing urban population explosion and the inability of local economies to provide adequate basic services and employment opportunities, increasing proportions of urban dwellers are living below the poverty line. Nevertheless, urban growth in the region continues to be fuelled by rural-urban migration. The explosive growth of urban informal settlements, and the poor health status of their residents, challenge the commonly held assumption that the health and economic circumstances of urban populations are superior to rural conditions. Emerging evidence indicates that the African urban poor have less access to health services, and consequently exhibit higher mortality rates than residents from other population sub-groups including rural residents (APHRC, 2002). Nairobi typifies the current urban population boom and associated urban health and poverty problems. Its population was only 120,000 in 1948 (Muwonge, 1980). After 1948, with the abolition of the ‘pass’ system, and the relaxation of migration rules following Kenya’s independence in 1963, Nairobi’s population reached 350,000 in 1962, and 500,000 in 1971 with an estimated one third living in unauthorized housing (Macharia, 1992). The 1999 Kenyan Population Census estimated the population of Nairobi then to 2.3 million (Republic of Kenya, 2001). However, the city’s health and social services have not kept pace with its urbanization trends. Such rapid urbanization has resulted in high rates of unemployment, poverty and poor health outcomes among the most disadvantaged of the city’s residents. To respond to this population and health crisis, the African Population and Health Research Center (APHRC) partnered with the Program for Appropriate Technology in Health (Kenya), CARE International (Kenya), JHPIEGO Corporation (Kenya), and the Population Council to initiate work on a program seeking to determine cost-effective strategies for improving the deteriorating health and livelihood conditions of the poor residents of Nairobi City. The immediate focus of this project - known as the Nairobi Urban Health and Poverty Project (NUHPP) - is to set up cost-effective health and livelihood interventions aimed at reducing the excessively high disease and mortality burden prevalent among slum children in Nairobi, a population group that is most severely affected.

The project’s focus has been informed by findings from APHRC’s research work on the Nairobi urban poor. According to the Center’s Nairobi Slum Cross-Sectional Survey (NCSS) carried out in 2000 on a random sample of 4,564 slum households, the infant mortality rate (IMR) in Nairobi’s informal settlements (91/1000) is higher than in any other parts of Kenya; for instance, the IMR was 39/1000 in the non-slum parts of Nairobi, 57/1000 in urban Kenya, 76/1000 in rural Kenya, and 74/1000 in Kenya as a whole (APHRC, 2002). These high levels of infant mortality in the slums are due partly to low levels of immunization, and the high prevalence of respiratory tract infections, diarrhea and malaria. NCSS data indicate that only 44% of slum children aged 12-23 months were fully vaccinated vs. 65% nationally. Data from the pilot demographic surveillance system (DSS) carried out by APHRC in the slums of Nairobi between
September 2000 and May 2002 show that the top three illness conditions among infants are respiratory tract infections (38%), malaria (15%) and diarrhea (10%). By targeting these patterns of mortality and morbidity, the NUHPP will contribute towards the goals of the Government of Kenya’s 1999-2015 National Poverty Eradication Plan (NPEP) which aims, among other objectives, to reduce morbidity of low income and disadvantaged groups from malaria, acute respiratory infection, diarrhea and skin infection; reduce infant mortality in poor households; and increase full immunization coverage for children of low income households.

This study complements previous studies carried out by the APHRC by providing programmatic information regarding livelihood and health services, while unveiling community needs in these areas. The study was carried out jointly by APHRC and the other NUHPP partners (Program for Appropriate Technology in Health (Kenya), CARE International (Kenya), JHPIEGO Corporation, and Population Council. The four institutions designed the study instruments, while APHRC was responsible for designing and implementing the fieldwork. The fieldwork was conducted between March 14th-29th 2002. This study is part of a broader process - “Clarifying Operational Details of the NUHPP Experiment” (CODE), funded by the USAID’s Making Cities Work Program. CODE is supporting the design and early consultative phases of the NUHPP.

2. Study Objectives, Organization and Design

The needs assessment study was conducted in four slum settlements (Kawangware, Korogocho, Njiru, and Viwandani) where the NUHPP is being carried out. The study involved three main tasks: mapping of all health, livelihood and other community facilities; interviewing officials of these facilities; and conducting focus group discussions (FGDs) and in-depth interviews with residents of the four study areas.

2.1. Study Objectives

The overall goal of the Needs Assessment Study was to inform the NUHPP partners on the most critical health and livelihood issues facing Nairobi slum residents, and thus, help identify key interventions necessary for these areas. The specific objectives of the study were to:

i) Understand the commonest types of health problems in the slums;

ii) Elucidate the prevailing patterns of health seeking behavior in the slums;

iii) Identify the availability and types of health care services (public, private, traditional, etc.) and the range of services they provide;

iv) Identify constraints to health service provision and areas that require improvement;

v) Determine community readiness for support of and participation in NUHPP health services activities;

vi) Investigate existing livelihood base of slum dwellers including income, employment opportunities and enterprises;

vii) Assess the role of the private sector in providing employment and business opportunities for slum residents;

viii) Identify feasible health and livelihood interventions and possible partners to implement them.
2.2. Inventory of Community Services

Using maps drawn by the Central Bureau of Statistics prior to the 1999 census, fieldworkers surveyed each slum and marked (on the map) the physical location of all community facilities and resources located in the four slum settlements. Four structured questionnaires were designed to conduct interviews with officials of the following categories of institutions: modern health facilities, traditional health providers, community institutions, and livelihood initiatives. The questionnaires sought to collect information on the nature of ownership, partnerships with other organizations, range and cost of services offered, characteristics of clients, staffing, nature of supplies and equipment, key challenges and needs of the facilities, management and information systems used, and physical condition of the buildings in which they operate.

The Modern Health Facilities Questionnaire covered all modern health facilities, including hospitals, static and mobile clinics, dispensaries, drug stores, and community outreach health services. The Traditional Health Providers Questionnaire was administered to traditional health providers such as herbalists, witchdoctors, spiritual healers, traditional birth attendants, and other non-conventional (non-modern) health providers. The Community Institutions Questionnaire was administered to educational, religious and other social organizations set to assist the needy, improve sanitation and general hygiene through initiatives such as garbage collection, water supply and fecal waste services. The Livelihood Initiatives Questionnaire was administered to heads of all organizations running initiatives meant to improve slum dwellers’ work-related skills and access to resources that would enhance their income generating potential.

In total, the study identified 878 institutions of which 60% were community institutions, 10% were livelihood initiatives, and 30% were health services (16% modern facilities and 14% traditional providers). The predominance of community institutions (they comprise at least 60% of all programs) is reflected in all sub-locations with the exception of Viwandani, where less than half of the programs are community institutions. Further breakdown of the categories shows that the vast majority of community institutions were religious, indicating strong tendency for the urban poor to resort to spiritual enrichment. The overall completion rates for the questionnaires were quite high for modern health facilities (88%), traditional health providers (88%), and livelihood initiatives (90%), but quite low for community institutions (64%), especially in Kawangware where, due to resource constraints, interviews were not conducted with a sizable proportion of religious institutions toward the end of the fieldwork.

2.3. Qualitative Investigation of Community Priorities and Health Seeking Behavior

In order to get community perspectives on the most critical health problems and general needs confronting the slum communities, possible solutions to the problems, the potential role of the communities in dealing with the problems, coping strategies, health seeking behavior, and experiences with past and existing intervention programs meant to improve their well being, we carried out six FGDs\(^1\) and between 14 and 15 in-depth interviews in each slum location.

Since the NUHPP’s immediate focus is to reduce childhood mortality in the study communities, the in-depth qualitative interviews were mostly done with women, who bear the primary responsibility of taking care of children aged less than 5 years. These interviews were conducted by a separate group of interviewers, who had been given special training on qualitative research techniques. The FGD participants were recruited a day before the discussion by the qualitative field teams. The in-depth interviews were done to get detailed information about health seeking behavior for specific episodes of childhood illness (the last illness). Each FGD had 6-10 participants, and both the FGD and in-depth interviews were tape-

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\(^1\)The FGDs were conducted with the following groups in each slum: women - a) younger age group (under 20); b) middle-aged group (20-34); c) older group ((35+); men - d) younger age group (20-34); e) older age group (35+); and f) community leaders (both men and women).
recorded and transcribed verbatim. The data were then typed and analyzed by authors of the specific chapters of the report.

3. Assessment of Health Conditions

Poverty not only excludes people from the benefits of the health care system, but also restricts them from participating in decisions that affect their health. Urban slum residents suffer far more health inequalities as their settlement pattern itself denies them a reasonable access to fixed health and social services that are availed to other residents of the city. The following section of this report provides a general overview of the health and environmental situation in the four slums using three complementary survey methods: structured interview/observation, in-depth interview, and FGDs. The general health status description incorporated perspectives of the care providers and those designated to receive the care. Accordingly, an inventory of all health care providers, modern and traditional, was made to assess their human, operational and structural capacities. Residents in general and particularly mothers of children below five years of age were interviewed on child health awareness, health seeking practices, and priority health concerns.

3.1 Health Awareness and Treatment Seeking Behaviours

Diseases related to the unsanitary living environment, lack of water, HIV/AIDS, and inadequate nutrition formed the majority of reported illnesses both by the health workers and mothers. Child health problems such as diarrhea and vomiting, typhoid, malaria, worm infestation, pneumonia, skin problems (scabies, ringworms), and common colds/coughs were frequently cited as important health concerns by mothers.

Study findings indicate that the level of awareness about illness and treatment was relatively high. Mothers correctly perceived childhood pneumonia, diarrhea, malaria and measles as serious health problems with fatal outcomes, especially when accompanied by vomiting and fever. However, lack of financial resources largely prevented mothers from seeking health care. They often wait for days using home-made remedies for childhood illness until situations become worse. Whenever they obtain the required finances, their first-line service providers as reported from the study are chemists and drug stores that easily sell them drugs off the counter. This leads to high prevalence of inadequately treated morbidity, irrational drug use, and long-term impoverishment. Misuse of anti-malarial drugs and antibiotics is a typical example that could embody this situation.

3.2. Major Public Health Concerns

3.2.1. Water Supply

Poor access to safe and adequate water is a serious problem in the slums. The Nairobi City Council (NCC) supplies water irregularly to slum settlements, forcing residents to travel long distances and wait in long queues to buy water from private/NGO water points for up to Ksh. 5 per 20 liters; and often, this water is not safe for drinking. Others buy water from illegal water line connections or from landlords who own boreholes. Still, others use sewage-contaminated water from nearby rivers. The community members consider the water they use as dangerous due to contamination. It was reported that the plastic pipes used by the water vendors often burst, and accumulate a lot of filth. The use of rainwater is also unhealthy as noted by a young mother in Viwandani:

“*There are no toilets, people excrete in paper bags and when it rains it mixes with this water and so when you collect rainwater it is mixed with the stool that people throw anywhere even on the roof*”.

The communities recognize the relationship between water and diseases such as typhoid, cholera and skin conditions especially among the children. While women acknowledge that boiling water helps to reduce
impurities, they complain that fuel prices make it unaffordable. The respondents proposed several solutions to resolve water problems including, increasing the number of water points, stopping illegal water connections, fixing broken pipes, and frequent checks and repairs by the NCC.

3.2.2. Human Waste

Lack of toilets poses a major problem in the slum areas at three main levels: availability, accessibility and maintenance. Human waste is disposed on the roads, open field, and trenches and bushes. People frequently fill polythene bags or plastic tins (e.g. *kasuku* tins) with human waste and dispose of them onto the roads or in the rivers (*flying toilets*). Communal toilets shared among a number of tenants or toilets where people are charged between Ksh. 5-10 to use are sometimes available. Even these are not maintained properly and emptied regularly, thus it is common to observe overflowing open toilets particularly during the rainy seasons. Discussants in all four slums blamed this situation for health problems among their children such as diarrhea, typhoid and vomiting.

In view of the problems outlined above, the community members suggested several solutions, including the need to increase the number of toilets, frequent emptying and maintenance of the available toilets, obliging landlords to build toilets, and educating the community on hygiene.

3.2.3. Garbage Disposal

Improper dry refuse and open sewage disposal features characterize the physical environment in the slums. Different data sources (interview, discussions and site observations) stress the fact that piles of refuse are found on the pathways and along riverbanks. Some people scavenge on these piles and children play with used condoms. Rodents, mosquitoes and flies flourish on this rubbish, creating health problems and bad smells. A community leader from Njiru decried the status of most slums:

> “Everything here is polythene paper. There are so many of them. You find if there are goats if they eat the papers or if the cows eat, they deteriorate in health after sometime. Even children, you find they are chewing papers and they don’t know where they come from and it is a health hazard. That’s why we are asking how are we going to dump these papers?”

An associated problem to garbage disposal is poor drainage. The uncollected garbage often blocks any drainage that might exist in these communities and makes the slums muddy and impassable during the rainy seasons. This leads to several consequences including increase in breeding places for mosquitoes, filth, foul smells, and diseases.

The community members expressed the need for the existing trenches to be drained and appropriate drainage pipes installed. They proposed the following measures: collection of garbage by NCC or private firms; provision of garbage collection bins to each household for disposal at a central point; building a centrally located compost pit; community education and occasional clean-ups in the communities with close supervision by Ministry of Health; and active participation of community members (e.g. youth groups) in these activities.

3.2.4. HIV/AIDS

HIV/AIDS is a prominent problem in all the four communities. The usual coping mechanisms for caring for people with AIDS, orphans and widows through extended social networking appears to be overwhelmed. As a result, community members are noting an increase in the number of street children, prostitution, suicide and isolation of infected individuals.

Nevertheless, silence and denial still prevail among people living with HIV/AIDS in the slums. People often
fail to share information on their sero-status with their sexual partners and/or change their addresses once they develop symptoms. According to some respondents, men often take revenge by infecting others or leave their infected wives and marry younger women. A young mother from Korogocho describes how poverty and vulnerability to HIV/AIDS are closely linked especially for women:

“…some (young mothers) have the problem of paying rent and the children get sick and so at nightfall they have to walk by the roadside. That is the work they do and when they get a man they go with him (have sexual intercourse for pay)” and “…you may not have a husband but you have children who need to eat, because your children cannot die of hunger while you are watching; that is how you get this disease”.

3.2.5 Nutrition

Lack of food is a problem for children in the slum communities. In fact, child nutrition was cited as one of the most pressing issues for mothers. Respondents appear to be familiar with symptoms of protein-energy malnutrition such as Kwashiorkor and Marasmus. A mother from Korogocho remarked:

“They keep saying that we should give a balanced diet to our children but if you don’t have food that is a problem. Like when you go to the clinic, they will say that your child does not eat well.”

Slum mothers know that children require a balanced diet, and they would like to feed their children well, but they lack the financial ability to do so.

3.3. Modern Health Facilities

A total of 125 modern health facilities were identified in the four slum communities including: three ‘hospitals’; ten health centers; four dispensaries; 92 clinics; 14 drug stores/pharmacies; one nursing home and one facility engaged in door-to-door service. Of these facilities, only four (3.2%) are owned by the NCC. 84.8% are private profit-making; 6.4% are managed by religious groups; 4.0% belong to community-based organizations; and 1.6% are local and international NGO facilities. Although nearly all (87.2%) of these facilities claim to operate with a formal license, very few obtained licenses from the authorized license issuing bodies. Eighty-nine health facilities (71.8%) did not have any working guideline or standard protocols for their services. Private profit-making facilities accounted for more than 75% of these. Half of the private profit-making facilities have never been supervised by any agency.

Most of the facilities have between 1-3 functional rooms to deliver their range of services (patient consultation, injection, dressing, in-patient, storage, etc.) and only one of the three so-called ‘hospitals’ had adequate examination room, wards, patient beds and other utilities. Amenities such as piped water supply, electricity and at least one toilet (water flush or pit) were generally available in less than two-thirds of the facilities. The situation analysis in supplies of medical equipment and utilities revealed a serious shortage in most health facilities. Others possessed supplies and equipment not commensurate to their level of standard practice.

There are ten qualified doctors working full-time in all these facilities. Other full-time employees include 32 Clinical Officers, 36 Nurse Midwives, 74 General Nurses, 56 Nurse Aides, 12 Community Health Workers, 26 Pharmacists, and 22 Laboratory Technicians. These figures depict a huge demand for qualified health personnel when juxtaposed with the total population in need of their services. Moreover, the contrast between population-to-health personnel ratio in the slums vs. in Nairobi City as a whole reveals a serious inequity in manpower distribution.
A majority of the staff report having undergone some level of training in family planning, prenatal care, management of childhood diarrhea and acute respiratory infections, infection prevention and immunization. A significant proportion of them lack training in post-abortion care (76.6%), Integrated Management of Childhood Illnesses (IMCI) (40%), voluntary counseling and testing (VCT) (40%), and Prevention of Mother-To-Child Transmissions (PMTCT) of HIV/AIDS (31.4%).

Nearly all facilities provide curative services at outpatient level. Three-quarters of their clients come from within the same slum community. Common preventive health care offered in 75% of the health facilities are condom provision, antenatal care and family planning. A quarter to a third of these health facilities also provide delivery services, post-abortion care, syphilis test as well as VCT for HIV. IMCI services are provided by 10-50% of health facilities across the four slums. Child immunization services are provided by 20 health facilities, of which 10 are private profit-making.

Out-of-pocket fees for services are the rule in a majority of the health facilities. A few facilities - such as the ones run by NCC, community-based organizations, religious groups and local NGOs - provide antenatal clinic, post-abortion care, VCT and management of childhood diarrhea, free of charge. The costs of services vary depending on the type and ownership of the health facility and the specific health problem. Alternative ways of payment for services such as waivers, credit or exemptions are practiced by a limited number of these facilities in emergency situations, to regular customers and through contractual provisions.

A quarter of the 125 health facilities target special population groups such as poor households, mothers, youth and HIV/AIDS orphans. Eleven of the 17 health facilities that target poor households are located in Viwandani, two in Korogocho, three in Kawangare, and one in Njiru. Four of the facilities target mothers, of which two operate in Korogocho, and one each in Kawangare and Viwandani. There is one health facility working with youth in Kawangare. And, there is one center in Korogocho targeting HIV/AIDS orphans.

Most health facilities and traditional healers refer patients to Kenyatta National Referral Hospital as opposed to other facilities within or close to the slums. The recommended practice is to refer a patient to the next inline referral facility subject to a patient’s condition. Referral services from health facilities are provided usually for the following common health problems in order of importance: complicated pregnancy and delivery, conditions requiring major surgical operations, accidents, complicated malaria, incomplete abortion, and severe pneumonia. In-depth interviews with various groups in the four slums also identified HIV/AIDS, malaria, diarrhea, pneumonia and typhoid as major health problems requiring priority actions. Respondents in the 125 health facilities gave the following list of most critical health and related problems in the slums (in order of importance): poor environmental sanitation and hygiene, unsafe and inadequate drinking water, poverty, malaria, acute respiratory infections, sexually transmitted infections, and waterborne diseases.

3.4. Traditional Health Care Delivery

A total of 110 traditional health care providers were visited in the four slums. Just over half (55.6%) are traditional birth attendants, 34.5% are traditional healers or herbalists, and 1% are witchdoctors and spiritual healers. Fifty two percent provide health services from their homes, 31% visit patients at their homes, and 17.7% operate from a separate building.

Very few of these traditional health workers have formal skills training; but most have gone through apprenticeship. There appears to be no centralized and formal registration of these health workers by government agencies or professional societies. Nevertheless, many report that they have received operational licenses from different institutions and groups such as Traditional Healers Association, NCC, Ministry of Culture and Social Services, and Registrar of Societies. Personal contacts/affiliations with other institutions
such as NGOs, churches, Office of the President, etc. were also mentioned as a justification for operating the services.

Traditional health workers claim to provide a wide range of services including normal delivery (58.2%); treatment of childhood diarrhea using herbs (53%); treatment of sexually transmitted infections, particularly syphilis and gonorrhea (42%); provision of family planning services (30%); treatment of infertility (40%); treatment of HIV/AIDS; and provision of abortion services (5.5%). The five most commonly reported health problems were malaria, HIV/AIDS, pneumonia, sexually transmitted infections, and abortions.

Although two-thirds of the interviewed traditional health workers receive cash payment for their services, they also accept alternative payment mechanisms like waivers (42%), credit services (72.7%), discounts (46.4%), and exemptions (31%). Fees-for-service vary, similar to the modern health care facilities, and they are not relatively cheaper.

Given opportunities for change, traditional health workers would like to expand their facilities, obtain more medical technologies and supplies, receive financial assistance, and be trained on health issues.

3.5. Summary

Despite the existence of 235 purported modern and traditional health facilities, the slum communities studied generally lack adequate access to basic health care and consequently bear the unfair share of morbidity and mortality from largely preventable causes. The unhealthy social and physical living environments exclude these poorest segments of the urban poor from decent livelihood and exacerbate the unacceptable health outcomes. These adverse health conditions have left the average slum community to intensely depend on expensive private profit-making facilities that operate informally using ‘ill-trained’ professionals. Communities’ main health concerns and needs revolve around child health, environmental sanitation, and poor livelihood opportunities. On their part, health service providers’ felt needs were related to service premises (expansion and renovation), presence of qualified health personnel (or staff training), and technical capabilities (more medical equipment and laboratory facilities).

4. Livelihood and other Community Resources

People build their livelihoods on their resource endowments of skills and abilities, land, savings, equipment, and formal or informal support groups and networks that enable them to sustain a certain level of living standard. The level of resource endowments has a bearing not only on how individuals are sheltered and fed, but also subsequently on their health status. For example, it has been observed that the under-five mortality in urban slums in Nairobi is higher than that observed in rural areas, partly due to the living conditions that are closely related to access to livelihood resources of land, water, housing, and sanitary conditions (APHRC, 2002). It has been observed elsewhere that children of parents with more education - skills and abilities - are more likely to have better health outcomes. The exception is where these children are left with nannies while mothers go off to work (APHRC, 2002). Also, children of mothers with access to financial services, credit and saving arrangements such as Rotating and Saving Credit Associations (ROSCAs) have better health outcomes (Gonzales et al., 1999). Finally, individuals with protection against shocks, for example a financial shock resulting from medical expenditure while seeking health care - are more likely to seek medical treatment (Andersen et al., 1991). This section looks at the available livelihood initiatives in the four slums in relation to the needs of the population and the existing challenges and opportunities.
4.1 Community Institutions

Community institutions were pre-coded into school, place of worship (mosque or church), entertainment center, and other community institutions. Other community institutions included groups such as self-help groups and community development initiatives that dealt in a number of issues ranging from promoting members’ welfare to street children and nutritional demonstration. Since there was only one entertainment center in Viwandani, this category was not considered further in the analysis. The results show that Kawangware is more served by schools, which account for 41.4% of the 191 institutions, compared to 30.3% (of 99 institutions) in Korogocho, 18.2% (of 76 institutions) in Viwandani, and 39.6% (of 48 institutions) in Njiru. Korogocho has the highest number of places of worship (50.5%) compared to other settlements, but has the least livelihood initiatives (11.1%) compared to 20.9% in Kawangware, 26.0% in Viwandani, and 20.8% in Njiru.

Ownership is a crucial building block for the success of interventions, especially when they are community initiated and owned. Community ownership is highest among livelihood initiatives and other community institutions, where the community owns 87.8% and 87.9%, respectively. Community ownership among other institutions is 9.4% and 21.8% for places of worship and schools, respectively.

4.2. Financial Resources

4.2.1. Income Generation

Generally, income levels are low for most slum residents. Many of them tend to rely on petty businesses and casual jobs for survival. When asked what they did for income generation during the in-depth interviews, many young mothers reported that they were single mothers who were not involved in income generating activities for various reasons, including their role as caretakers of their children, lack of employment opportunities, and retrenchment. For the mothers who earn an income, they tended to be involved in casual labor and irregular petty businesses of selling fruits, vegetables, local brew or second-hand clothes.

Slum dwellers contend that the little and unreliable income, and the difficult living conditions limit their access to basic services, thereby exposing them to a variety of problems such as illnesses, domestic violence and diseases. A mother in Kawangware said:

“It (domestic violence) is mostly due to the husband not having a job and the result is lack of food in the house and so the wife blames the husband because he is supposed to provide food but he is unable and that is where the fight begins”.

An important element of improving people’s ability to attract employment is through imparting skills that increase an individual’s competitiveness in the job market. A group of leaders from Njiru made the following remarks during an FGD:

“You know this place does not have many things. There has not been any project to open people’s eyes on what to do. That’s why school leavers end up hawking. When it comes to joblessness, it is difficult to know what people do in the day. Some go to Mukuru... There has not been anybody coming with a course to teach people although there is a time we had thought of having a technical place so that our people can learn”.

Although there are a number of institutions working in these communities, only a few are engaged in income generating activities. Of all the livelihood related institutions, 39 (9.7%) are involved in income generation. The rest were formed to improve livelihoods in general - including catering for education needs, improving their members’ skills, maintaining the environment, including garbage collection (39.4%)};
4.2.2. Financial Services

Financial services include micro-credit facilities, ROSCAs, and other saving schemes such as “Money Collector”. ROSCAs are the typical merry-go-rounds, and are most common in these settlements; “Money Collector” is a type of saving where an individual collects a specified amount of money periodically and keeps it on behalf of the owner - similar to a village bank.

The results show that although some of the community members would like to have access to credit, others tended to favor increased job opportunities. The tendency of respondents not to favor loans is based on the initial requirements (e.g. guarantee of repayment and security) and the interest charges. Jobs are preferable because they provide more stability and can enable someone to save. The community members intimated that the loans should not attract high interests if they are meant to help the poor. They suggested that if an organization were to give loans, it should disburse good (adequate) money with longer repayment periods. Further, the loan recipients require training before receiving the money so that they can be able to plan on how to utilize the funds effectively.

Merry-go-round groups were mentioned as ways in which money circulates among community members. These are mainly organized by women to help each other in acquiring household items or in saving money for investment. For example, in Njiru there is a group known as Nuru that has come up with two roomed-housing units, which generate income for its members. Some of the groups also provide credit to members, which they repay at minimal interest. In general, financial oriented institutions are mainly community initiated, have limited membership and resources, and do not attract much external support.

4.3. Access to Essential Services

Schools and places of worship form the highest number of institutions in these communities, accounting for 34.3% and 30.8%, respectively. However, the schools are neither properly built nor adequately staffed to facilitate the imparting of meaningful and quality education. The other essential services that are covered elsewhere in the report are health services. Access to these services is hampered by cost and, in some cases, quality.

The slum economy mainly depends on cash. Goods and services such as water, food, housing, toilets, and garbage collection have to be bought in the market. One of the safety nets for the poorer people in the slums would be exemptions from fees or charges for use of these facilities. The study sought to understand whether those institutions that charge fees have mechanisms of exempting those that cannot afford. Out of the institutions that charge for their services, 56 (36.6%) provide waivers, 67 (43.8%) allow exemptions, 131 (85.6%) provide credit facilities, and 28 (18.3%) give discount. This may be an indication of the feasibility of solidarity arrangements, especially regarding social safety nets.

4.4. Summary

Both the participants in the FGDs and the institution representatives revealed a number of critical concerns prevailing in slum communities. The common thread among these concerns is access, quality and cost, which relate to lack of appropriate choices. These issues have some implications on future interventions aimed at improving the livelihoods of the slum dwellers, since improvement in livelihoods increases the possibility of having more options. For example, if an organization were to focus on waste management, it would be required not only to construct toilets, but also to put in place a mechanism for maintenance for quality purposes - and for sustainability purposes would need to be linked to a livelihood initiative.
The insecurity situation in Korogocho needs a little more discussion. Field reports show that compared to other settlements, there are more gangs, greater idleness, alcohol and drug abuse, to mention a few. It is not very clear why there is more insecurity reported in this settlement compared to the others. One possible explanation is that when people have limited choices for making a living, they adopt high risk strategies with the expectation that once there is success, a living will be earned. Unfortunately, with time this may become chronic to the extent that there is little regard for others.

Despite the fact that access to credit facilities has been shown to improve people’s livelihood, access to such facilities was only mentioned in a few cases. There are, however, a number of concerns associated with accessing credit facilities. First, the institutions that provide credit facilities do so at high interest rates and require collateral security, and therefore poor people are reluctant to take such loans. Secondly, there is uncertainty associated with what to use the money for, that is, a business strategy that would yield back the money that one has been loaned. Thirdly, there is the risk of losing the investment due to the uncertainty of living in the slums (fires, demolitions, violence, robbery, etc.) and therefore losing the collateral as well.

5. Challenges and Opportunities for Interventions in Informal Settlements

5.1 Main Challenges of Working in Slum Communities

Since the main goal of the study was to identify both the opportunities for interventions and possible partners, it was deemed necessary to explore the feasibility of working in these areas. Institutions were therefore asked to identify challenges that they face while working in these communities. These challenges range from, most importantly, lack of resources, insecurity, lack of cooperation from the communities, to the failure to identify the best project that could help develop the communities (see Table 1).

Table 1: Challenges Facing Institutions in the Four Slum Settlements

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Korogocho</th>
<th>Kawangware</th>
<th>Viwandani</th>
<th>Njiru</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insecurity</td>
<td>37 (37.8)</td>
<td>9 (4.8)</td>
<td>9 (10.8)</td>
<td>7 (15.2)</td>
<td>61 (15.0)</td>
</tr>
<tr>
<td>Lack of community cooperation</td>
<td>5 (5.1)</td>
<td>36 (19.2)</td>
<td>11 (14.9)</td>
<td>6 (13.0)</td>
<td>58 (14.3)</td>
</tr>
<tr>
<td>Lack of financial resources</td>
<td>35 (35.7)</td>
<td>84 (44.7)</td>
<td>34 (46.0)</td>
<td>20 (43.5)</td>
<td>173 (42.6)</td>
</tr>
<tr>
<td>Competition</td>
<td>-</td>
<td>8 (4.3)</td>
<td>3 (4.1)</td>
<td>1 (2.2)</td>
<td>12 (3.0)</td>
</tr>
<tr>
<td>Ignorance/illiteracy</td>
<td>4 (4.1)</td>
<td>13 (6.9)</td>
<td>-</td>
<td>-</td>
<td>17 (4.2)</td>
</tr>
<tr>
<td>Lack of expansion space</td>
<td>5 (5.1)</td>
<td>10 (5.3)</td>
<td>6 (8.1)</td>
<td>3 (6.5)</td>
<td>24 (5.9)</td>
</tr>
<tr>
<td>Alcohol/drug abuse in community</td>
<td>2 (2.0)</td>
<td>4 (2.1)</td>
<td>-</td>
<td>1 (2.2)</td>
<td>7 (1.7)</td>
</tr>
<tr>
<td>Problems with City Council</td>
<td>2 (2.0)</td>
<td>2 (1.1)</td>
<td>-</td>
<td>2 (4.4)</td>
<td>6 (1.5)</td>
</tr>
<tr>
<td>Sanitation/hygiene</td>
<td>-</td>
<td>2 (1.0)</td>
<td>4 (5.4)</td>
<td>-</td>
<td>6 (1.5)</td>
</tr>
<tr>
<td>Drop out/default</td>
<td>8 (8.2)</td>
<td>18 (9.6)</td>
<td>8 (10.8)</td>
<td>5 (10.9)</td>
<td>39 (9.6)</td>
</tr>
<tr>
<td>Project identification</td>
<td>-</td>
<td>2 (1.1)</td>
<td>-</td>
<td>1 (2.2)</td>
<td>3 (0.7)</td>
</tr>
<tr>
<td>Total</td>
<td>98 (100)</td>
<td>188 (100)</td>
<td>74 (100)</td>
<td>46 (100)</td>
<td>406 (100.0)</td>
</tr>
</tbody>
</table>

The challenge of lack of financial resources cuts across all the institutions operating in the four informal settlements as well as lack of cooperation, defaulting on fees or loans, and lack of expansion space. Insecurity was a significant challenge according to institutions working in Korogocho (37.8%). Although all the four slum settlements experience insecurity, the problem is most severe in Korogocho.

5.2. Opportunities for Interventions and Challenges

Community ownership is a crucial building block for the success of interventions since it is an indication of community members’ participation and creativity in solving their own problems. Community members primarily own livelihood initiatives and they generate most of the incomes through membership contributions and rarely benefit from external support. This strength could be utilized for purposes of sustainability of any new initiatives since it demonstrates commitment and interest in improving their own livelihoods.
Most of the existing institutions were set up to improve the livelihoods of the people in the communities and to cope with the expenditure shocks to the households resulting particularly from illness and death. This partly explains the fact that more than half of the livelihood initiatives are concerned with improving the financial situation of the slum dwellers. A lot of the concerns addressed by these initiatives include care for the sick and funeral expenses. One opportunity to reduce the shocks resulting, at least from ill health, is disassociating payment of health services from use through some form of a prepayment arrangement.

6. Summary

Available literature indicates that the number of people living in urban areas in sub-Saharan Africa is set to account for a large proportion of the population in this region. However, economic growth in the region is not as fast as the rate of growth of urban population, giving rise to an increasing proportion of urban dwellers living below the poverty line. Available evidence indicates that the poor in many urban centers in sub-Saharan Africa have limited access to health services and thus experience higher mortality levels than their rural counterparts. The case of Nairobi city is no different. The growth of the city’s population has out-paced its health and social services resulting in high rates of unemployment, poverty and poor health outcomes among the poorest of the city’s residents. The NUHPP is focused on setting up cost-effective health and livelihood interventions with a view to reducing the high incidence of disease and mortality among children in the slums of Nairobi.

As part of the NUHPP, this study was conducted in four slum settlements in the city i.e. Kawangware, Korogocho, Njiru and Viwandani to identify the most critical health and livelihood issues facing Nairobi slum residents, and thus inform decisions on the key interventions in these areas. Results from the study show that whereas slum residents are generally aware of illnesses and treatment, their health seeking behavior is largely limited by lack of financial resources. The slum residents are also faced with poor access to safe and adequate drinking water, lack of toilets which has given rise to flying toilets, lack of proper garbage and sewage disposal mechanisms, as well as lack of food in terms of quantity and quality leading to the problem of malnutrition.

The slum communities mostly depend on expensive profit-driven private health facilities (both modern and traditional) that operate informally and employ ill-trained professionals. Thus, their main concerns are to do with child health, environmental sanitation and poor livelihood opportunities. The health service providers, on the other hand, feel that the expansion and renovation of service premises, having qualified personnel as well as medical equipment and laboratory services are their most felt needs.

The majority of the slum residents rely on petty businesses and casual jobs as means of generating income and, despite the fact that a good number of institutions work in these communities, only a few are engaged in income generating activities. Access to credit facilities is limited by concerns for collaterals, high interest rates, limited business opportunities, and uncertainty arising from insecure tenure systems. Most of the slum residents therefore rely mainly on merry-go-round groups which are community initiated, have limited membership and do not attract much external support. Whereas the majority of institutions in the slums are schools and churches, the schools are neither properly built nor adequately staffed. The major challenges to the institutions working in these communities range, most importantly, from lack of financial resources, insecurity to lack of community cooperation.

7. Conclusion

The health and livelihood concerns of slum dwellers seem to be diverse yet intertwined; they are faced with poor access to safe and adequate drinking water, and poor sanitary facilities - which pre-dispose them to illnesses. In the event of illness, they have limited access to appropriate health services due to both physical
and financial barriers, resulting mainly from limited livelihood opportunities. To address their health concerns focusing on single interventions such as curative or preventive would probably be less effective because the approach would ignore the connectedness of their problems. Child morbidity and mortality is the greatest health challenge in these slum communities. This implies that intervention packages that address health service provision, environmental sanitation, personal hygiene, health seeking behavior, and livelihood opportunities are likely to have greater impact.

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