COMMUNITY HEALTH VOLUNTEERS REPORT: MUKURU S.P.A

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1.0 INTRODUCTION

Community health is a vital component of public health and involves the study and improvement of health in communities within a geographical area. Community health volunteers create the link between health service providers and communities by sharing knowledge on public health and individual practices that promote health. CHVs also create links between the community and the government by responding to various community needs such as general health promotion, home care practices, emergency services, as well as reproductive, maternal and child health. The main role of community health workers is to guide patients to the appropriate healthcare system. In Kenya, CHVs are selected in the neighborhood where they reside. Ideally, each CHV should serve 100 households.

CHVs are the lowest level (level 1) of health providers. In Mukuru S.P.A, Community Health Volunteers (CHVs) are an underutilized resource. They are the primary source for disseminating public health initiatives and programs, but are not given appropriate compensation. It is also difficult to track the level of training of CHVs and whether they are able to provide appropriate health services and disseminating health information. Additionally, no measures are put in place to track CHVs. Recognizing the integral role CHWs play in Mukuru, SDI-K conducted a valuable mapping project to determine their levels of coverage in the SPA. Additionally, profiling was carried out to determine, among others, the total number of CHV's in Mukuru S.P.A, as well as their level of training, collaboration with other levels of health providers, their role in society, the major challenges they face and their compensation.

1.1   Methodology of data collection

2 distinct methods were employed to obtain data regarding CHVs in Mukuru S.P.A.

First, interviews were administered to CHVs in Mukuru. The purpose of the interview of to gather CHV data such as years of practice, training levels, CHVs compensation, CHVs satisfaction, and their relationship with CHEWs among other details. The interviews targeted to profile the entire CHVs of Mukuru. As the activity was CHV led, 25 CHVS (7, 10 and 8 from Viwandani, Kwa Njenga and Kwa Reuben respectively) were trained on data collection using electronic devices (tablet). After training, they interviewed the rest of CHVs within Mukuru. The total exercise took a duration of 3 days.

Focus group discussions were also carried out, with an aim of deriving information such as CHV challenges, their skills levels and major cases they handle. More importantly, it is through this forum that mapping was conducted to identify the CHVs coverage areas, unserved pockets, Community Health Units, CHV representatives, CHVs per unit, CHV names and extent of CHVs overstretch. The data gathered was then digitized spatially to present covered zones.

2.0 DATA ANALYSIS

2.1 CHVs profiled

A total of 386 CHVs were profiled in Mukuru S.P.A. Out of this, 82% were female, while the remainder were male. Kwa Njenga has the highest number of CHVs (145), followed by Viwandani and Kwa Reuben at 123 and 118 respectively.

Table 1: CHVs profiled per settlement

Settlement	Female		Male		Total	
	Number	Percent	Number	Percent	Number	Percent
Kwa Njenga	122	**31.61%**	23	**5.96%**	145	**37.56%**
Kwa Rueben	88	**22.80%**	30	**7.77%**	118	**30.57%**
Viwandani	107	**27.72%**	16	**4.15%**	123	**31.87%**
Total	317	**82.12%**	69	**17.88%**	386	**100.00%**

2.2 Age bracket of CHVs

The typical age bracket of CHVs was 40-44 years, followed by 35-39years and 45-49 years, at 22.1%, 20.3% and 16.3% respectively. A majority of CHVs are past the youth age bracket, above 35years. For women CHVs, 57.4% are 40 years and above. On the other hand, about 39.1% of male CHVs are 40 years and above. The high proportion of middle aged CHVs is due to their reliable availability within the community compared to the youth, and readiness to take part in the low paying/ voluntary community health activities. From the FGD conducted among CHVs, it was noted that a majority of the CHVs, especially women, reside within the same villages they volunteer in.

Table 2: Age bracket of CHVs

Age	Percentage male	Percentage female
15-19	0.0	0.0
20-24	8.7	0.3
25-29	10.1	8.7
30-34	18.8	12.9
35-39	23.2	19.6
40-44	14.5	23.8
45-49	5.8	18.6
50-54	10.1	10.3
55+	8.7	5.8

2.3 Highest academic qualification

There is high literacy level among Mukuru CHVs. A high proportion of the CHVs (54.7%) have attained secondary education, while an additional 40.4% have attained primary education. Only a small percentage had attained tertiary education (4.9%). Of this, men who had attained tertiary education were 3 times more than the female (11.6% and 3.5% respectively).
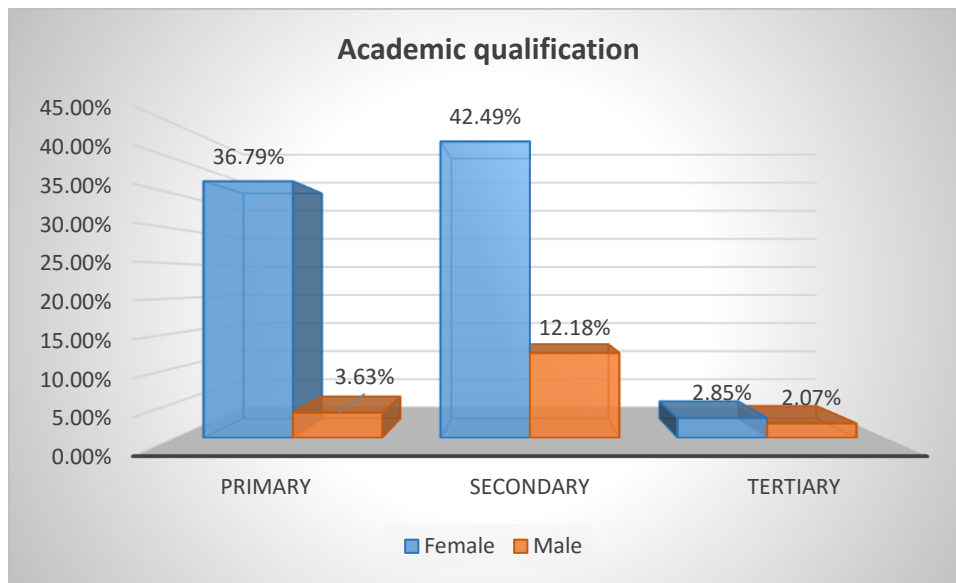
2.4 Marital status of CHVs

There was a high proportion of married CHVS, as 73.9% of male, and 64.7% of female were married. There were higher incidences of female reporting to be widowed (6.9%) compared to male (2.9%). Additionally, divorced women were also higher than male (5.4% against 1.4%)

2.5 Years of serving as CHV

Based on the interviewed CHVs, their duration of service provision is diverse, ranging from less than one year to beyond 20 years. 4 female CHVs noted that they have offered their services for over 21 years. About 42.4% of respondents have served as CHVs for 2-3 years. Additionally, 15.4% have served for 9 years. A majority of male CHVs (48.5%) have served for 2- 3 years, while 40.7% of female have also served 2-3 years. The high percentage of CHVs for the past 2-3 years can be attributed to County government of Nairobi efforts to increase CHV'S and CHU's to offer health services at grass root levels. This is in an effort to make devolved health more functional and effective.

Table 3: Years serving as a CHV

Years serving as CHV	Total percentage	Male percentage	Female percentage
<1	1.3	2.9	0.9
1	1.0	2.9	0.5
2	21.2	29.4	19.2
3	21.2	19.1	21.5
4	5.0	5.9	4.7
5	2.4	1.5	2.5
6	1.6	2.9	1.3
7	9.4	5.9	10.1
8	3.4	7.4	2.5
9	15.4	11.8	16.1
10	8.1	4.4	8.8

11-15	5.5	1.5	6.3
16-20	3.7	5.9	3.2
21+	1.0	0.0	1.3

2.6   Hours per day committed to CHV roles

Most CHVs (63.7%) noted that they dedicate 2 hours a day for the voluntary service, while an additional 17.6% dedicate about 3 hours a day. Female CHVs are more willing to volunteer more hours compared to males, as evidenced by 19.6% of women volunteering 3 hours, while only 8.7% of male volunteered for the same number of hours. Number of hours dedicated by the average number of CHVs are relatively low, due to the voluntary nature of the task, and/ or low returns accrued.

Graph 2: Hours volunteered per day per CHV
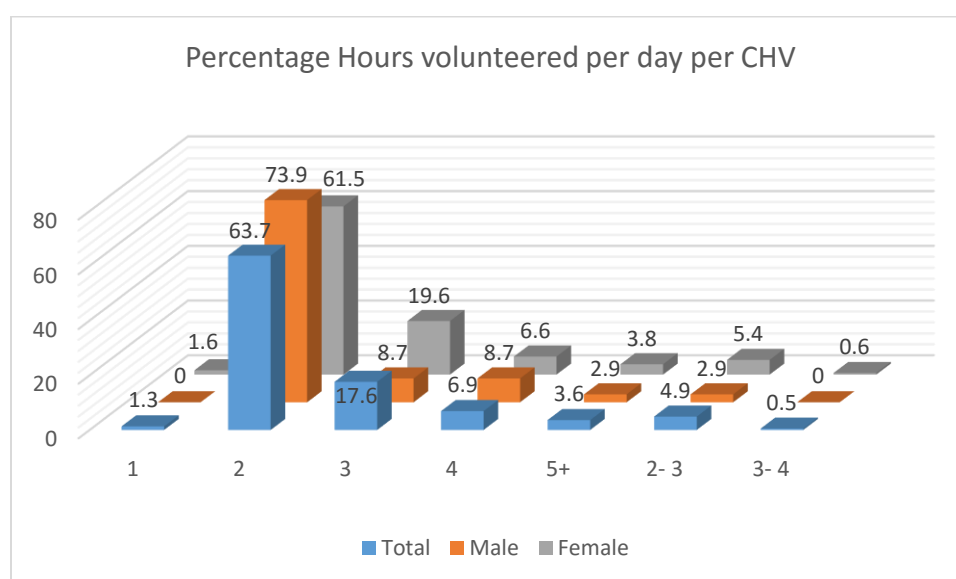
2.7   CHV Training

The lowest level of training available to CHVs focuses on basic competencies.   Indeed, the Community Health Volunteers Basic Modules Handbook includes 6 modules that focus on health and development, community governance, leadership and advocacy, social mobilization and best practices on health promotion. Every CHV undergoes the basic modules training before active field work.

In the study carried out on CHVs within Mukuru, an overwhelming majority (94%) of CHVs indicated that they had undergone some form of formal training. The training received by CHVs were clustered as: Basic modules, specific training and technical training. Approximately 56.1% had received basic modules training, while an additional 53% had specific training. Only a small proportion (3.9%) had received technical training. This training has been supported by the County and National Government with support from various NGOs and CBOs, with Access Afya and UNICEF providing most of the training.

Name of CBOs and NGOs supporting trainings

UNOPS	3.46%
USAID	2.24%
UNICEF	18.29%
Tupange Pamoja	2.85%
Jiphigo	1.63%
Red Cross	9.55%
Concern Worldwide	5.89%
Others	9.15%
Amref	13.41%
Access Afya	17.28%
APHRC	12.80%

0.00% 2.00% 4.00% 6.00% 8.00% 10.00% 12.00% 14.00% 16.00% 18.00% 20.00%
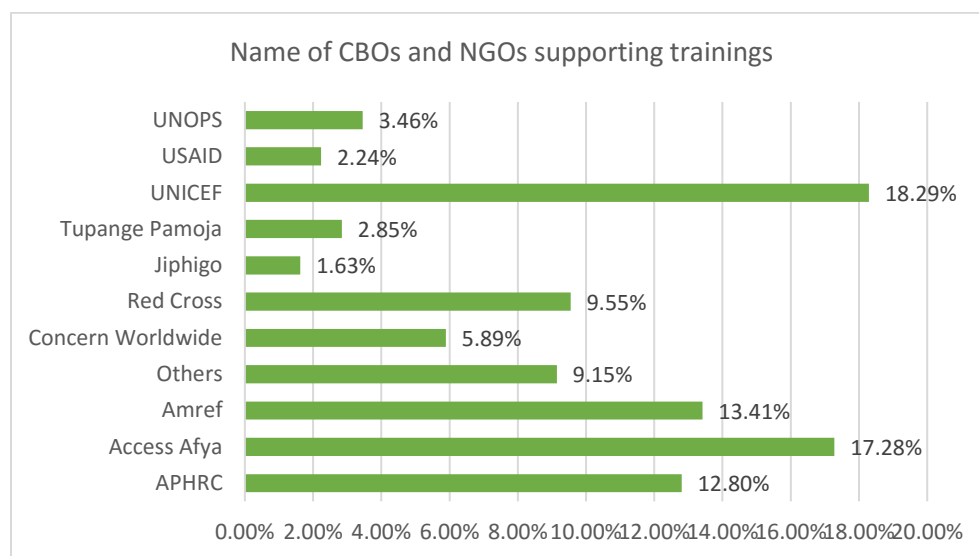
2.7.1   Year the CHVs received the training

Based on the survey data, about 25.8% of CHVs received training between 2010- 2012. The years following, (2013- 2015), only 1.9% of CHVs received any form of training. However, the trend reversed from 2016, as 68.7% of CHVs have received a form of training between 2016 to 2019.

2.7.2   CHV Training and work experience

A correlation was carried out, to illustrate the relationship between years of working as a CHV and the levels of training. It was noted that a significant portion of CHVs who had worked between 2-3 years had received basic modules (42%), technical modules (84.62%) and even specific training (36.84%). Significantly, CHVs who had worked 8-9 years had received basic modules, technical modules and specific training, at 19%, 7.69% and 22.11% respectively. It is evident from these statistics that level of training is not commensurate to number of years one has worked as a CHV. However, these years coincide to the years when CHV training was high in Mukuru. For instance, CHVs who have worked 2-3 years are likely to have received training between 2016 to 2019, when the training trend was highest. Additionally, 2010- 2012, training of CHVs was significant, explaining why CHVs who have worked 8-9 years have high levels of training.

Table 4: CHV Training and working experience

Years working for CHV	basic modules	technical modu	specific train	Total
0-1	1.00%	0.00%	1.58%	1.24%
2-3	42.00%	84.62%	36.84%	40.94%
4-5	6.50%	0.00%	7.37%	6.70%
6-7	8.50%	7.69%	13.68%	10.92%
8-9	19.00%	7.69%	22.11%	20.10%
10-11	10.00%	0.00%	6.84%	8.19%
More than 11	13.00%	0.00%	11.58%	11.91%
Total	100.00%	100.00%	100.00%	100.00%

2.8   CHV major roles

CHVs have diverse roles, ranging from first aid activities, offering referrals, vaccinating children, providing health related education among others. In Mukuru, the greatest role of CHVs is offering referrals (26.5%), home visits (20.17%), and awareness and sensitization to the community (15%). Other significant roles include data collection, mobilization, follow up and reporting.

Table 5: Major roles of CHVs per settlement

Role	Settlement		
	Kwa Njenga	Kwa Rueben	Viwandani
Awareness and Sensitation	19.54%	13.12%	12.30%
Referrals	24.37%	24.26%	30.87%
Home visits	18.07%	25.50%	16.94%
Data collection	4.62%	11.63%	13.66%
Mobilization	7.35%	7.67%	9.84%
Follow up	14.08%	7.43%	13.66%
Reporting	11.97%	10.40%	2.73%
Total	100.00%	100.00%	100.00%

2.9   Engagement in other work/ activities.

A significant percentage of CHVs (69.1% male and 62.2% female) noted that they are engaged in other duties beyond CHV roles. Such activities included mobilization, vaccine administration and clean ups at 34.1%, 20.3% and 15.4% respectively. Additionally, they carry out roles such as creating awareness of gender based violence, cleaning, nutritional advice, conducting census, deworming, creating awareness for social issues among other activities.

A correlation of the responses was done to compare the probability of getting selected to carry out other community activities based on whether a CHV has received training. It was evident that

trained CHVs stand a higher chance of getting other tasks to perform within the community, due to their skills, literacy equipped, reputation and increased trust among the community

Table 6: Training level vs ability to get more work

Have you received any training?	Do you get selected to carry out other work because of being a CHV?		Total
	no	**yes**	
no	43.48%	56.52%	100.00%
yes	36.11%	63.89%	100.00%

2.10 Common tools used by CHVs

CHVs have an array of tools which are used to enable efficient service provision. The most common tools used are Moh 100 (95.5%, for making referrals), Moh 513 (91.0%, for community mapping), and Moh 514 (91.3%, for reporting). Other common tools are MUAC Tape, weigh scales, pens/ pencils, blood pressure machine, thermometer, weigh scale and diarrhea baseline.

Table 7: Tools used by CHVs

Tools used by CHVs	Total %	Male %	Female %
Moh 100	95.5	92.7	96.1
Moh 513	91.0	90.9	91.1
Moh 514	91.3	85.5	92.6
MUAC Tape	51.9	58.2	50.6
Gloves	13.1	20.0	11.7
Family Planning Commodities	6.4	1.8	7.4
Uniform	7.4	7.3	7.4
Bag	12.2	14.5	11.7
Condoms	3.5	1.8	3.9
Aquatabs	2.2	0.0	2.7
Other	23.0	41.8	21.4

## 2.11 Common diseases within the settlement.

Mukuru informal settlement is faced by extensive pollution from neighboring industries, indoor air pollution, and indiscriminate solid waste disposal. This has resulted in recurrent infections, and increased treatment expenses. Based on CHVs feedback, diarrhea (23.8%) and cholera (20.3%) are the leading diseases, followed by TB (12.06%). All these diseases are closely linked to hygiene of the settlement, which is compromised by the above stated pollution. Additionally, the nature of structures coupled by high population density contributes to TB spread. Cholera and Diarrhoea are highest in Kwa Njenga due to prevalence of open burst sewer connecting to Embakasi girls'. The sewer flows to the adjoining Ngong' river tributary. Whenever it rains, the sewer and rain water floods into the settlement, resulting in high cases of cholera and diarrhea.

Table 8: Common diseases in Mukuru S.P.A

Diseases	Settlement			Total
	Kwa Njenga	Kwa Rueben	Viwandani	
Diarrhea	31.22%	27.54%	12.65%	23.80%
TB	3.70%	16.43%	16.06%	12.06%
Cholera	30.69%	26.57%	3.65%	20.30%
Cold	5.82%	2.90%	4.87%	4.53%
HIV	1.06%	8.21%	10.46%	6.58%
Cough	5.29%	3.38%	7.54%	5.40%
Typhoid	2.65%	2.90%	5.35%	3.63%
Fever	3.17%	5.31%	6.33%	4.94%
Diabetes	3.70%	3.38%	11.92%	6.33%
Hypertension	2.65%	2.42%	13.38%	6.15%
Cancer	2.65%	0.97%	4.38%	2.67%
Pneumonia	7.41%	0.00%	3.41%	3.60%
Total	100.00%	100.00%	100.00%	100%

Upon occurrence of the diseases, CHVs provide first aid and refer the patients to hospitals for further treatment. Normally, about 66.7% of community health workers refer patients primarily to government supported health facilities. An additional 30.7% refer the patients to private health facilities, while the remainder refer them to community based health facilities.

Chart 1: Ownership of health facilities

Ownership of Health Facility

2.60%

30.65%

66.75%

■ community ■ private ■ public governm
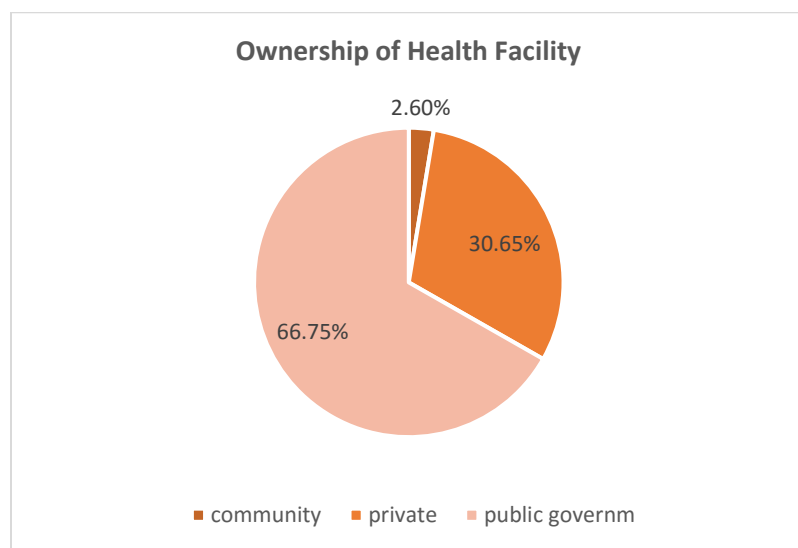
Mukuru has 2 public health facilities- Mukuru health centre and Lunga lunga dispensary. Additionally, Reuben health centre offers treatment at subsidized cost to the residents. It is a faith based health facility. CHVs make referrals to patients based on proximity of the health facility, cost of treatment needed, and capacity of the facility to offer treatment. Often, about 85.45% of Kwa Njenga CHVs refer patiients to Mukuru health Centre, as it is within Kwa Njenga area. On

the other hand, 98.29% and 53.07% of Kwa Reuben and Viwandani CHVs refer patients to Reuben health centre and Lunga lunga dispensary respectively. However, a trend was observed that about 7% of Viwandani CHVs refer patients to Mama Lucy hospital, especially in cases where a patient requires specialized services unavailable within the settlement. Referrals for treatment outside Mukuru settlement are mainly made by Viwandani CHVs, as evidenced in the data below. This could be attributed by close proximity of Viwandani to these health facilities such as Mama Lucy and Makadara health centre. For instance, Mama Lucy hospital is just 1.3km away from Viwandani settlement.

Table 9 Referral health facilities

Referral health facilities	Settlement		
	Kwa Njenga	Kwa Rueben	Viwandani
Mukuru Health Center	85.45%	0.85%	0.00%
Reuben health center	2.42%	98.29%	1.32%
Lunga Lunga	0.00%	0.85%	53.07%
Mukuru Medical Missioneries	8.48%	0.00%	0.00%
Cana	0.00%	0.00%	8.33%
Olive link	0.00%	0.00%	5.70%
Mama Lucy	0.00%	0.00%	7.02%
Melihelp	0.00%	0.00%	8.77%
Makadara H/C	0.00%	0.00%	9.65%
Mbagathi	0.00%	0.00%	3.51%
AccessAfya	2.42%	0.00%	1.75%
Others	1.21%	0.00%	0.88%
Total	100.00%	100.00%	100.00%

2.12 CHV Compensation and satisfaction

CHV often offer their srevices voluntarily, with minimal or no compensation. Lately, the county government of Nairobi has been making efforts to introduce compensation of CHV services. In Mukuru, 52.1% of CHVs noted that they have received monetary compensation. Females appreared to receive compensation more (53.6%) compared to male (44.9%). An overwhelming proportion of the compensated CHVs (94%) indicated that they had received ksh. 500. Only 6 CHVs had received ksh 2900 and above. The voluntary nature of the service influences the amount compansated to CHVs. FGDs were conducted in Mukuru, and the major challenge flagged by CHVs was the minute compensation. This discourages their service delivery, as they often prioritize to carry out activities that are income generating.

2.13 Relationship with CHEWs

The relationship between CHVs and CHEWs was described to be good, according to 82.1% of the CHVs. An additional 16.1% of the respondents noted that the relationship was excellent. Respondents gave reasons such as good teamwork (18.5%), good communication (12.5%) and an understanding nature (10.5%) as the factors influencing good and excellent relationship with the CHEWs. A relationship between CHVs and CHEWs was evaluated against CHV volunteer

satisfaction. A good proportion (44.68%) of CHVs who had a good relationship with the CHEWS also noted they felt satisfied with their voluntary services. However, 22.34% of CHVs couldn't decide whether they felt satisfied of the voluntary services or not. This indicates that volunteer satisfaction is directly linked to the existing relationships between CHVs and CHEWs.

Table 10: CHV volunteer satisfaction vs relationship with CHEWs

Relationship with the CHEWs	CHV Volunteer Satisfaction (%)					Total (%)
	can't decide	dissatisfied	satisfied	very dissatisfied	very satisfied	
excellent	2.08	3.9	7.53	0	2.6	16.1
good	22.34	11.17	44.68	0.26	3.64	82.08
poor	1.04	0	0.26	0.52	0	1.82
Total	25.46	15.06	52.47	0.78	6.23	100

2.14 CHV Volunteer satisfaction.

About 52.33% of CHVs indicated they were satisfied with their volunteer work, while an additional 6.22% noted they were very satisfied. Nonetheless, 25.65% of CHVs couldn't secede whether they were satisfied or not, while an additional 15.03% mentioned being dissatisfied. Kwa Njenga had the most (30.31%) satisfied CHVs, while Kwa Reuben and Viwandani had high dissatisfied CHVs (6.22% in each settlement). Reduced satisfaction could be attributed to lack of adequate CHV tools, and poor/ no compensation. Improving the CHV welfare, and enhancing communication channels with CHEWs would improve the overall satisfaction rate.

Table 11: CHV Volunteer satisfaction per settlement

Settlement	CHV Volunteer Satisfaction (%)					Total (%)
	can't decide	dissatisfied	satisfied	very dissatisfied	very satisfied	
Kwa Njenga	3.37	2.59	30.31	0	1.3	37.56
Kwa Rueben	12.44	6.22	10.1	0	1.81	30.57
Viwandani	9.84	6.22	11.92	0.78	3.11	31.87
Total	25.65	15.03	52.33	0.78	6.22	100

2.14.1 Reasons for satisfaction

The satisfied and very satisfied CHVs gave a range of reasons to support their feedback. About 51.9% of the respondents derived their satisfaction from volunteering and offering help to their community, an additional 7.7% viewed their role as an opportunity for learning. However, 16.9% of CHVs noted they felt satisfied instead of very satisfied, due to lack of payment for their voluntary services. Female CHVs mainly derived satisfaction from having good working relationships with community members, proper cooperation among the community, improved community health, and access to health services. Male CHVs derived satisfaction from getting to know people, good cooperation from community members, and increased knowledge of community through education.

Reasons for satisfaction

| Reason	Value
Other	23.5
No payment	16.9
Learning experience	7.7
Enjoy volunteering/helping community	51.9

(Horizontal axis: 0, 10, 20, 30, 40, 50, 60)

2.14.2 Reasons for dissatisfaction

Approximately 21.55% CHVs were either dissatisfied or very dissatisfied with their roles. The major dissatisfaction (82.1%) stemmed from lack of monetary compensation. About 7.3% of women CHVs expressed safety and security concerns as their major fears while offering their services. Negligible training and minimal engagement in community activities also added to the list of dissatisfied CHVs.

Lack of or minimal compensation among CHVs was a cross cutting concern, as an additional 53.8% of the CHVs who couldn't decide whether they were satisfied or dissatisfied mentioned this as their major impediment. Lack of compensation thereof may directly influence the number of hours a CHV can dedicate for service delivery in a day. It may also impact CHV motivation and ability to be mobile to offer help

Reasons for CHV disatisfaction

Others 13%

No security, can feel unsafe 5%

No payment 82%
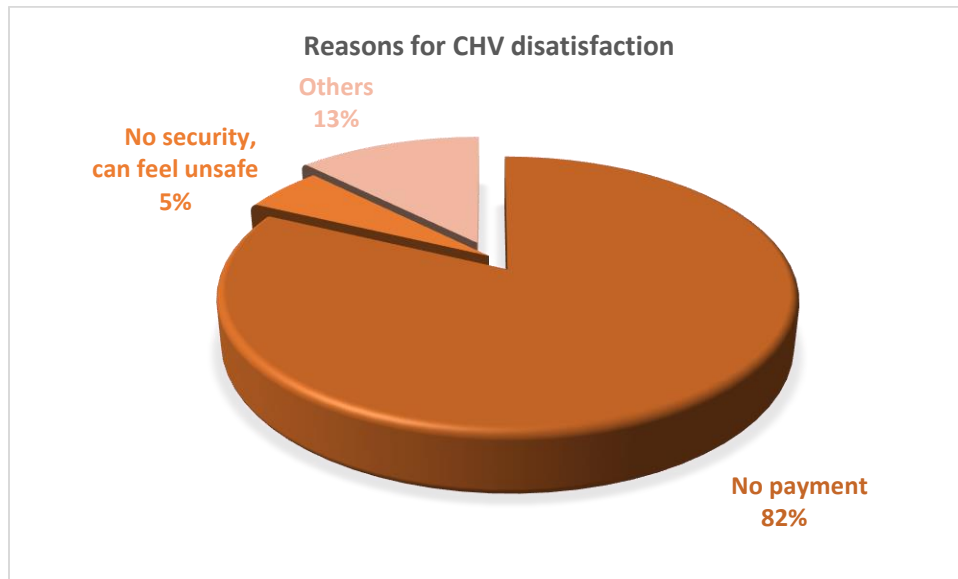
3.0 CHV MAPPING

CHV mapping was carried out in Mukuru S.P.A. Its core purpose was to map the CHV Coverage areas, identify unserved pockets, overstretched CHVs, number of structures a CHV serves, establish Community Health Units (CHUs), CHV representative per unit, number of CHVs per unit and their names. This successful activity was led by CHVs and Muungano representatives, with guidance from urban planners. Mapping was done across the 3 settlements- Mukuru Viwandani, Mukuru kwa Reuben and Mukuru kwa Njenga. It was carried out at segment level, to obtain precise and detailed CHV Data, and for easy coordination of mapping activities. As each segment has a number of villages (2-5), 3 CHVs were selected from each village to attend a Focus Group Discussion, with a fundamental aim of mapping CHV coverage areas. Mapping was carried out for 2 consecutive days in each settlement- 3 segments were mapped per day.

Hard copy aerial images each outlining a segment were printed. They were then used by CHVs to map their coverage areas, unserved pockets, and establish CHU names, CHV representatives and CHVs per unit. The data obtained was then digitized for purposes of spatial illustration of CHVs coverage zones, as illustrated in the map below.

Map 1: CHV coverage areas within Mukuru S.P.A

From the mapping, it was noted that the average CHV coverage is 273 structures. In Mukuru, a structure hosts about 10 dwelling units, which translates to 10 households. This indicates that Mukuru CHVs serve over 1000 households, which is way above the recommended households of 100- 150. Below is a map showing sample structures/ scope that CHVs serve within Mukuru S.P.A

Map 2: Sample coverage areas per CHV

CHV COVERAGE AREAS: MUKURU S.P.A

Legend

- Ngong' River
- Mukuru structures
- Sample coverage 4- 104 structures
- Sample coverage 3- 58 structures
- Sample coverage 2- 147 structures
- Sample coverage 1- 200 structures
- Sample coverage- 273 structures
- CHV Coverage Areas
- Mukuru Villages

1:15,000

0   375   750   1,500 Meters