THE PRIVATE SECTOR AND HEALTH:
A survey of Somaliland private pharmacies
Authors:
Caitlin Mazzilli
Dr. Rehana Ahmed
Austen Davis
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Purpose of report:

- Establish the extent of current operations of private pharmacies in Somaliland in rural and urban areas.
- Describe the pharmaceutical distribution chain.
- Contribute to the body of knowledge and understanding of the Somaliland private health sector and the role it plays in delivering health services.
- Recommend future directions for improvements and opportunity-seizing to contribute to the improved health of the Somaliland population.
### Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>CHD</td>
<td>Child Health Days</td>
</tr>
<tr>
<td>FGD</td>
<td>Focus Group Discussions</td>
</tr>
<tr>
<td>FP</td>
<td>Family Planning</td>
</tr>
<tr>
<td>FSAU</td>
<td>Food Security Analysis Unit</td>
</tr>
<tr>
<td>GPS</td>
<td>Global Positioning System</td>
</tr>
<tr>
<td>HGH</td>
<td>Hargeisa Group Hospital</td>
</tr>
<tr>
<td>IDP</td>
<td>Internally Displaced Person</td>
</tr>
<tr>
<td>IEC</td>
<td>Information Education and Communication</td>
</tr>
<tr>
<td>IRIN</td>
<td>Integrated Regional Information Networks</td>
</tr>
<tr>
<td>MCH</td>
<td>Maternal and Child Health (clinics)</td>
</tr>
<tr>
<td>MD</td>
<td>Medical Doctor</td>
</tr>
<tr>
<td>MDG</td>
<td>Millennium Development Goals</td>
</tr>
<tr>
<td>MoHL</td>
<td>Ministry of Health and Labour</td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
</tr>
<tr>
<td>PSI</td>
<td>Population services International</td>
</tr>
<tr>
<td>RH</td>
<td>Reproductive Health</td>
</tr>
<tr>
<td>SCZ</td>
<td>South Central Zone</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
</tr>
<tr>
<td>VCT</td>
<td>Voluntary Counseling and Testing</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organization</td>
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</table>
Somaliland health facility records indicate that a Somalilander visits a public maternal and child health centre once in eleven years. Access to modern health services remains of critical concern, as well as the quality of services received by those who do visit public facilities.

Anecdotal evidence suggests that for those utilising modern health services, private health services appear to dominate, particularly the use of private pharmacies, but little has been documented regarding their operations. Within the private sector there are numerous levels of private care, but the majority of private facilities offering clinical care are clustered in large cities and are only accessible to the few who can afford them (and indeed, wealthier Somalis fly out of Somalia when they need higher levels of care). Private pharmacies on the other hand, are described as ubiquitous and offer a range of services that are accessible to a much wider proportion of society. Several studies have suggested they are the most used source of health care in Somaliland and other zones of Somalia. Private pharmacies are present in nomadic and settled rural areas, as well as in every corner of urban centres. Pharmacies therefore warrant particular attention, given their accessibility, affordability and utilisation. To date, that attention has been lacking.

This report describes the private pharmacy sector and gives information for influencing programme design, to allow public health actors to consider use of the private pharmacy network as important contributors to attaining public health goals in Somaliland. It is hoped that it will stimulate stakeholder interest in the private health sector, with the potential outcome of adding fresh thinking to current standards of intervention. Through comparison or contextual overlap, it may also assist stakeholders in Puntland and Central South Somalia to reflect on the operations and possibilities for collaboration within their own private sector.

This assessment was designed to gather both primary and secondary data through analysis of pertinent literature and by conducting (1) a Somaliland-wide survey of private pharmacies; (2) a short urban pharmacy client exit survey; and (3) a stakeholder analysis with individuals from the Somalia/land health sector, including pharmaceutical wholesalers. Where possible the different sources of data have been placed together, to offer a comprehensive analysis of each topic.

Key findings include:

- A weak public capacity to develop and implement a strong but facilitative regulatory environment.
- Stakeholders described a variety of quality concerns linked to the weak regulatory environment and felt the failures of the public sector to be the cause of pharmacy proliferation.
The domestic pharmaceutical distribution chain was seen to be short, with the great majority of pharmacies in the six regions purchasing frequent small batches of drugs directly from importers/wholesalers in Burao and Hargeisa. The report finished with recommendations on major future directions in working with the private sector to protect and promote public health. These recommendations revolve around five key areas:

1) There is a need to slowly develop the regulator capacity to both protect the public and support the private sector to function safely and to the benefit of the population of Somaliland.

2) The quality of private pharmacy services can be improved; an urgent need is for training, both in production of those who run pharmacies and staff, as well as for regular refresher training.

3) There is room for intervention from the private sector in promoting accessibility and provision of higher quality services.

4) Address financial barriers to client access.

5) Explore possibilities of regulation and support with other institutions and sectors.

- Some stakeholders suggested opportunities of building on what pharmacies offer, while others were oriented towards building the public authority and out-competing the private sector, through various measures.

- Few institutions were found to support either pre-service training or continuing education for pharmacists. No pharmacists were found. Nurses are permitted to head pharmacies and were the cadre most frequently reported as owning the pharmacies visited.

- Outlets were generally small operations, serving light client loads with small profit margins. To make any profit the pharmacies were extremely efficient in stock management and were open long hours on most days of the week.

- Pharmacies described offering health services beyond the sale of medicines, including injections, blood tests and diagnoses.

- Family-planning methods were sold by one in three of the visited pharmacies. Most pharmacies recognised some demand, but there were insufficient levels of demand or turnover in stock to warrant the risk of carrying products for sale among their capital stock.

- The few urban clients interviewed expressed levels of high satisfaction with the quality of drugs and services.
Some of the working figures (Child Health Days, 2009) have put the urban to rural breakdown at roughly 64% and 36% respectively. These estimates differ substantially from previous estimates of around 45% urban to 55% rural. In either case, livestock remains the backbone of the economy and pastoralism is widespread.

There is low coverage of essential public health interventions in Somaliland, including access to potable water, education and basic health services. A few health indicators are given in Table 1.1.

### 2.1 The Somaliland health sector

#### 2.1.1 Population and health indicators

There are many different population estimates for Somaliland. The official 2008 government estimate was approximately 3,500,000 people. Working figures for other population-based programmes differ, and include 2,000,000 (polio vaccination campaign, 2008) and 2,400,000 (Child Health Days, 2008). The survey team does not take a stance on which population figures are correct. However, programmatic figures for CHDs and polio were used as they disaggregated data to the district level and between urban and rural areas and so were more useful for sampling.

### Table 1.1: Somalia/land health indicators

<table>
<thead>
<tr>
<th>Topic</th>
<th>MDG indicator</th>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child mortality</td>
<td>13</td>
<td>Under-five mortality rate</td>
<td>135/1,000</td>
</tr>
<tr>
<td>(Somaliland)*</td>
<td>14</td>
<td>Infant mortality rate</td>
<td>86/1,000</td>
</tr>
<tr>
<td>Child immunization</td>
<td>15</td>
<td>Measles vaccination by 12 months</td>
<td>18.9</td>
</tr>
<tr>
<td>(Somalia)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maternal mortality</td>
<td>16</td>
<td>Maternal mortality ratio</td>
<td>1,044/100,000</td>
</tr>
<tr>
<td>(Somalia)*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life expectancy at birth</td>
<td>n/a</td>
<td>Male</td>
<td>47</td>
</tr>
<tr>
<td>(Somalia)**</td>
<td>n/a</td>
<td>Female</td>
<td>49</td>
</tr>
</tbody>
</table>

*(Source: Somalia MICS 2006 Report)

According to the MICS survey of 2006, infant, child and maternal mortality rates have improved over the previous period in Somalia, including Somaliland. However, overall coverage of basic public health interventions have not improved over the same period.

2.1.3 Background
Prior to the civil war, the national health system was *different on several accounts. Access to public health care was purportedly free but the rural health system was very poorly developed, leading to wide discrepancies in access and utilisation. The failure of the Barre regime to provide social welfare services to the population and the highly inequitable pattern of social investment (with the lion’s share invested in Mogadishu) contributed to the sense of disenfranchisement that brought on the civil war.

The civil war itself led to the total destruction of health facilities and infrastructure (especially higher-level facilities like referral hospitals), particularly in the northern regions and Somaliland. Many qualified health professionals left the country and the public health authority was dismantled. By the end of the civil war the economy and public sector were in tatters and the private health sector was virtually non-existent.

The public health sector has recovered very slowly and remains highly dependent on international assistance from institutional donors, UN agencies and NGOs, as well as large remittances from the significant Somaliland diaspora, to provide services. There are too few public facilities to provide access at levels recommended by international norms. Frequent stock-outs and inadequate human resources for service provision and management are constant challenges. All reviews of outputs and performance of the public health system show very low levels of performance and consequently low coverage of essential public health interventions, such as immunization, emergency obstetric care, treatment of the major under-five morbidities, etc. In addition, public facilities have instituted a cost-sharing mechanism and therefore there are officially no free health services in

2.1.2 The health system
The Republic of Somaliland has a Ministry of Health and Labour (MoHL) charged with health policy development and service delivery oversight functions. The MoHL is partially decentralised, supporting six regional offices largely responsible for drug supplies, management and supervision of the public health system, as well as surveillance and emergency responses.

The public sector currently consists of:
- 7 hospitals,
- 68 maternal and child health centres, and
- 150 health posts.
All are operated in partnership between the MoHL, NGOs and UN agencies.

The MoHL is intended to similarly oversee operations in the private sector (protective and supportive), but as yet it has a very limited capacity and fewer resources to carry out these functions, and there is limited partner involvement in the area.

The private sector is estimated to comprise about:
- 80 clinics and hospitals as well as
- 779 pharmacies, as presented elsewhere in this report.
Hence the private sector currently offers a more extensive network than the public sector.

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Somaliland, further contributing to the inequity of service provision of the public sector.

The private sector in Somaliland has developed progressively from about 1995. The substantial growth in the sector has been causally linked to the failures of the public sector in providing quality and coverage. Most of what is known so far about the private sector is either anecdotal, or inferred through rapid assessment of a few facilities. The lack of reliable information on skills and practices renders discussion about the sector open to individual experience, speculation, hyperbole and a sense of distrust.

2.1.4 Expenditure
The MoHL presents an annual budget to parliament. The budgeted health allowance has been increasing as a share of total public expenditure over the past few years, but is still roughly 3%, which equates to less than one million USD.

Over 75% of the budget is consumed by very low salaries paid to public employees of the health system and MoHL. There are small amounts left over for coordination, transport and running costs.6

There is no public budget for procurement of medicines or training of health staff professionals. Consequently, the public budget finances only a small proportion of the costs of the public system and the bulk of finances are generated through international support (donors, UN agencies and NGOs), charities, local businessmen, diaspora contributions, and out-of-pocket expenditure owing to the cost-sharing mechanism.7

Out-of-pocket expenditure in accessing the public system means that the population faces charges for health care in the public and private health sectors. The public sector does not always provide value for money, nor is it necessarily more equitable than the private sector (the total costs and satisfaction received by clients of the private sector are often higher than those using the public sector – for different reasons in rural and urban settings).

2.1.5 Current trends in the use of modern health services
Accessibility to any type of modern health services is of critical concern in Somaliland and many Somalilanders do not have the option of choice, especially outside of urban centres. It is a large and sparsely-populated country which poses serious geographical barriers to the provision and use of care. A significant proportion of ill people do not seek any type of modern health care8 9 10 and the available public facilities in Somaliland are poorly attended. Total consumption of these services is even lower than in Puntland or in South Central Somalia. This may be due to lower demand for modern health care in the North West, higher barriers to accessing public health care (including lower quality of public services), or the availability of a more developed and preferred private sector11 12.

Most quantitative analyses of health seeking behaviour indicate that (a) distance, cost of time and transportation and (b) cost of services are the principle barriers to facility use, while qualitative assessments indicate

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often shown that private facilities, including pharmacies, were more used than public ones for treatment of a recent illness. Little is known about why private sector services may be preferred, but it appears that public facilities are having difficulty competing with services on offer from the private sector. As seen in the following section, pharmacies commonly dominate in private health service delivery in Somaliland.

2.2 The Somaliland pharmaceutical sector

It has been suggested that the pharmaceutical sector is the least-investigated segment of the health system in Somalia or Somaliland. Meanwhile, the presence of a number of big pharmaceutical importers coupled with the increase in number, spread and use of pharmacies indicates that the private pharmacy sector has become an important business (and according to some sources, one of the major sources of employment).

2.2.1 Legal environment

The Republic of Somaliland has guidelines in place for private health practices, which include articles on pharmacy and pharmaceutical regulations. In summary, these regulations state that pharmacies:

1) must not have a laboratory on the premises;
2) must have the person in charge being in possession of a pharmacist, MD or professional nurse qualification;
3) must have three-years working experience; and

Similarly, the same MoHL consultancy produced draft rules for the registration of drugs and provided for the eventual oversight by the National Pharmacy Regulatory Authority’s of the process. There is therefore no capacity to carry out meaningful registration of medicines and drug importers operate according to their own discretion35 36.

2.2.2 Drug policy
The World Health Organisation (WHO) recently launched the Somalia Standard Treatment Guidelines and Training Manual on Rational Management and Use of Medicines at the Primary Health Care Level in Somaliland, available in Somali. This includes an essential medicine list, a curriculum on the rational use of drugs and information on procurement, storage and dispensing. It is currently being introduced in public facility training but is also intended to benefit those working in the private sector, such as pharmacies37.

The collection of draft documents prepared in 2001 (including the proposed legislative and regulatory framework) and this WHO-supported essential drugs list and guidelines constitute the backbone of the national drugs policy. There is therefore a rudimentary policy framework, but it remains largely on paper.

During interviews, ministry officials shared the opinion that a competitive, self-regulating private sector is needed, as regulatory authority will remain a challenge for some time to come (see Chapter 5). Public-private partnership initiation has been previously proposed in national health plans38.

4) must obtain MoHL permission to run a pharmacy.

In addition, the pharmacist should distinguish between prescription and non-prescription drugs, while wholesalers are barred from selling drugs on retail. The guidelines further state that MoHL pharmacy permits are to last three years and can be cancelled by the National Health Council for any non-compliance with regulations, which sets the ground for potential enforcement29.

These guidelines and regulatory provisions have not been widely distributed or enforced and it has been previously noted that the private sector is commonly unaware of them30.

In 2001 an external consultant assisted the MoHL to draft a ‘Proclamation of the National Pharmacy Regulatory Authority’ to open the way for its establishment, which was also identified as an objective of the 1999–2003 National Health Plan31. However, there has been stagnation in this regard, resulting in there currently being regulatory provisions without enforcement32 33. Even if progress was made in creating an authority, lack of regulatory control and enforcement capacity of drug outlets are frequently experienced in developing countries and Somaliland should expect to grapple with these same issues34.
In 2008 the MoHL, on their own initiative, surveyed all pharmacies in Hargeisa town. This report is effectively an extension of the MoHL survey (analysed results of the MoHL survey are included in Annex 2). The MoHL survey is testament to the ministry’s recognition that the private pharmacy sector is a major player in the Somaliland health scene and to their commitment to increase their understanding and role in regulating/supporting the sector.

2.2.3 Procurement of drugs

Drugs are imported to Somaliland mainly through international aid organizations and the private sector. The government was not able to procure drugs prior to 1991 and does not do so now. The national referral hospital (Hargeisa Group Hospital) manages a revolving drug fund to procure quality generics for sale at the hospital’s pharmacy (sourced from IDA in Holland). This is currently the only example of public procurement in the whole of Somalia and Somaliland.

International NGOs and UN agencies do not share a common procurement and importation system. UNICEF provides standard drug kits to all MCHs and Health Posts, whether they are operated by NGOs or the MoHL. The WHO and UNFPA also provide some medical supplies, mainly at the hospital level. NGOs procure and supply the facilities they support, often topping up drugs provided through the UN systems. Procurement by the private sector is discussed in more detail in Chapter 4 of this report.

2.2.4 Use of private pharmacies

Many studies in Somaliland have shown that the private sector was more frequently used by the population to treat recent illness, as previously mentioned. When comparing the services offered within the private sector, a number of studies have indicated that the bulk of all private service use is actually sought in private pharmacies.

Pharmacies were found to be the most common source of treatment:

- of potential illnesses amongst IDPs in Hargeisa;
- amongst caregivers of children with fever, cough or diarrhoea in Togdheer;
- amongst caregivers of children with suspected pneumonia in the whole of Somaliland;
- amongst rural inhabitants with fever in Gebiley district; and
- and amongst Somaliland pastoralists when traditional cures fail.

It is clear that a high proportion of the population use private pharmacies for medical care in Somaliland, often

as a first point of consultation\textsuperscript{50} \textsuperscript{51}. Furthermore, many have commented on the increasing presence of these outlets; the dominance of pharmacies within health service delivery has been documented as occurring since 1998\textsuperscript{52} \textsuperscript{53}.

Accessing pharmacies for the purchase of drugs and self-medication has sometimes been equated to a delay factor in appropriate health care seeking\textsuperscript{54}. Without correct knowledge of symptoms, risks of delay and appropriate referral, pharmacies can also perpetuate trends in poor health seeking behaviour. As the first point of care, they have a particular responsibility in early detection of more serious conditions.

\subsection*{2.2.5 Determinants of access to private pharmacies}

Due to their physical presence and opening hours, pharmacies are undoubtedly the most accessible modern health care delivery points in Somaliland. They are located in both nomadic and settled rural areas, as well as in every corner of urban centres. Furthermore they are open for longer and at more appropriate hours.

Relative to other health services, the biggest concern regarding access is therefore cost and quality of care, rather than distance, time or transport costs. There is some documentation on the extent to which the population can afford private pharmacy drugs and services, and how costs might effect dosing and type of treatment received.

In one survey, almost half of nomadic mothers reported that their households could not afford any of the drugs they felt they needed, against about 10\% of urban and 20\% percent of rural mothers\textsuperscript{55}.

The acceptability of services provided by pharmacies is not discussed in the literature, although the apparent high utilization speaks of their popularity. Much of this popularity is likely to be due to the fact that pharmacies simply suit the current practices in health seeking, which are largely curative in nature, as well as the value placed on drugs over consultation with a health professional\textsuperscript{56} \textsuperscript{57}.

\textsuperscript{50} FSAU. Hargeisa Returnees and IDP Settlements, Somaliland. Nutrition Survey Report. FSAU/UNICEF/MoHL Somaliland. September 2005
\textsuperscript{57} UNICEF. Multiple Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Somalia, 2006. UNICEF Somalia 2006.
3.1 Private pharmacy survey methodology

3.1.1 Desk review
The desk review consisted largely of grey material from the Somaliland health sector. Materials were collected by accessing the libraries of many of the interviewed stakeholders as well as through internet search engines. A complete bibliography is provided in Annex 3.

3.1.2 Generating a list of private pharmacies: numbers and locations
The generation of the list of Somaliland pharmacies was necessary as part of the sampling frame for the survey. The process of compiling and the list itself is presented in Annex 1 of this report.

3.1.3 Population data and administrative areas
For the purposes of this survey absolute population figures were not important and the survey team takes no position on which population estimates are correct. The Child Health Day (CHD) population estimates were used as an agreed proportional sampling frame disaggregating data to the district level (most recent MoHL/UNICEF/WHO estimates, 2009).

The other reason why CHD data were used was because they stratified the population between urban and rural populations in each region of Somaliland. According to these figures, the population is roughly 63% urban and 37% rural, with varying ratios per region.

At the time of the survey the Regions and District Self-Administration Law number 23/2007 was in effect, which *provided for 42 districts in the six regions of Somaliland. This law framed the understanding of districts for the survey as well as for the pharmacy enumeration exercise.

3.1.4 The sampling frame
The sampling frame for the pharmacy survey was *proposed to be distributed first, relative to the populations of the regions and second, stratified by *urban and rural relative to population distribution within each region.

The sampling frame provided for a higher number of sampled pharmacies in large urban settlements and fewer sampled pharmacies in small urban settlements or rural locations (proportional to population). This ensured that the survey results reflected the types of locations where people actually live and are most likely to access health services.

The stratification between urban and rural areas was used because it was strongly felt that health-seeking behaviour, accessibility and utilization of services in public and private sectors may differ significantly between urban and rural populations. For example, evidence has indicated that one of the major barriers to the use of
3.1.5 Defining urban and rural locations
In order to define an urban or rural location the survey relied on a 2007 classification by the Ministry of Planning which compiled a list of urban *xaafad* (smallest urban unit below the sub-district level) in the four regions of Awdal, Maroodi Jeex, Sahil and Todgheer (see Annex 5). All locations not defined as *xaafad* were assumed to be rural.

Sanaag and Sool were not a part of the 2007 Ministry of Planning profile, therefore a variety of programme planning documents were examined from UNDP, UNICEF and other agencies to define urban locations in the two regions. Consensus of this comparison is proposed in Annex 5.

3.1.6 The questionnaire
A preliminary draft questionnaire was developed in English and shared with the stakeholders who participated in key informant interviews. A second draft was then completed incorporating feedback received. This was translated into Somali and tested in Hargeisa on two occasions prior to finalization.

3.1.7 The interview
Interviews were conducted by a two person (one local and one international) interview team in Awdal, Maroodi Jeex, Sahil and Todgheer. After the local team member was fully trained in questionnaire delivery through implementing the questionnaire in four regions, the local interviewer completed implementation in Sanaag and Sool (the international team member was not given permission to travel to these areas).

Respondents were informed that participation was voluntary and confidential, and gave prior verbal consent. Refusal was very uncommon (less than 5%) and those who accepted tended to answer all questions fully. Unclear responses were verified on site and clarifications immediately sought from respondents.
3.1.8 The analysis
Data was entered and analysed using Excel to produce the figures, charts and tables presented in this report.

3.1.9 Shortcomings and challenges
Several of the rural pharmacies proposed in the original sample were found to be closed on arrival (three in Maroodi Jeeh, two in Togdheer and one in Awdal), mostly due to nomadic movements. It was explained that the pharmacies would only re-open when the pastoralists returned (i.e. they were seasonal pharmacies). In situations such as these, the remaining list of known pharmacies was drawn from to complete the desired sample size.

The actual sample size fell short by nine pharmacies. This was caused by logistical problems sampling in Sanaag (six fewer were sampled than proposed) and Sool (three fewer than proposed). Therefore, while they were included in the survey, pharmacies in the two regions were not fully representative in number and the situation in Sool and Sanaag is under-represented.

The failure to complete all rural questionnaires in Sool and Sanaag resulted in a smaller sample size and hence possible bias for the rural stratum.
3.2 Private pharmacy survey findings

The following section presents the findings of the private pharmacy survey conducted in February and March 2009, as well as supporting findings from the desk review.

3.2.1 Sample description:
Less than half of the sampled pharmacies were located on main roads, such as urban thoroughfares or highways. The following map indicated locations visited, while a complete list of towns is provided in Annex 6.

Figure 2.1 - Pharmacy sampling locations for the Somaliland private pharmacy survey

In nearly two-thirds of the pharmacies, outlet owners were available for interviews. The remaining third was conducted with pharmacy staff.

3.2.2 Legal and market context

Legal and regulatory environment - The Republic of Somaliland has guidelines in place for private health practices, including articles on pharmacy and pharmaceutical regulations.

In summary, these regulations state that pharmacies must (1) not have a laboratory on the premises; (2) have the person in charge possessing a pharmacist, MD or professional nurse qualification; (3) have three-years working experience; and (4) obtain MoHL permission to run a pharmacy. In addition, pharmacists should distinguish between prescription and non-prescription drugs. The guidelines further state that MoHL pharmacy permits last three years and can be cancelled by the National Health Council in response to any non-compliance with regulations, which sets the ground for potential enforcement.

The guidelines and regulatory provisions have not been widely distributed or enforced and it has been previously noted that the private sector is commonly unaware of them.

Once the MoHL permit has been obtained, protocol dictates that owners can register with the municipality for a business license. This should not be done prior to receipt of the MoHL permit as the municipality is not a health body and only oversees taxation matters. However, the 2008 survey of Hargeisa pharmacies showed that this step is often bypassed and pharmacies more often obtain the municipal license without prior approval of the MoHL.

In 2001, an external consultant assisted the MoHL in drafting a Proclamation of the National Pharmacy Regulatory Authority to open way for its establishment, which was also named as a strategy in the 1999-2003 National Health Plan60. There process has stagnated, meaning that there are currently regulatory provisions without enforcement61 62. Even if strides were made towards creating an authority, lack of regulatory control and enforcement capacity of drug outlets are frequently experienced in developing countries and Somaliland is likely to continue facing similar issues63.

The absence of quality control mechanisms undoubtedly allow for negative practices and the sale of sub-standard products in inappropriate quantities and *prescription to persist in the Somaliland pharmaceutical sector. This is poorly documented through systematic quality control studies, but quality of drugs and practices of staff and drug handlers have been repeatedly questioned in the literature64 65 66 67 68.

During this survey, over half of pharmacies (62% of urban, 52% of rural) reported *ever being visited by an employee of the MoHL. Most visits that did occur were linked to recent vaccination campaigns in the area. These visits were not regulatory in nature but rather opportunistic occasions putting a face to the ministry while the vaccination campaign was in the vicinity.

Overall, 90% of urban pharmacies and 67% of rural pharmacies covered by this survey were licensed with the municipality.

**Market environment**

The survey team compiled a list of 718 known pharmacies in Somaliland by means of municipal records, other sources of government information and PSI Somaliland sales records. With information gaps accounted for, the estimate reaches a total of 779 pharmacies (Annex 1). This is more than twice the number of all other modern health care delivery points combined, and implies a dynamic market on the ground.

On average, pharmacies visited had been open for seven years and one in five had opened within the past two years. Rates of closure were not determined, but it has been commonly reported in the literature that pharmacies

 Respondents were asked to estimate the average expenditure of clients per pharmacy purchase, which was higher in urban (2.81 USD) compared to rural pharmacies (1.95 USD). There was a wide range of responses from 0.30 USD to 12.00 USD, but a quarter of all pharmacies reported that clients spend less than one dollar on a typical medicine purchase. By comparison, an evaluation of the revolving drug fund pharmacy at HGH Hospital found that the average cost of a prescription (quality generics sold in full doses and procured tax-free) was 2.62 USD.

Collectively, responses suggest that urban pharmacies might make sales of about 98 USD a day, while rural pharmacies might bring in just half of that at 56 USD a day. The potential profit margin was not indicated but the total amount is likely to be small, given the suggested turnover.

Numbers of clients served in a day ranged from five to 200 in the urban pharmacies, to three to 80 in rural pharmacies, averaging 35 and 29 clients a day respectively. About one in five of pharmacies in both rural and urban areas were very small operations, serving just 10 or fewer clients.

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Business models were highly oriented to sales of medicines, both human and veterinary, and other health-related services. Three-quarters of urban pharmacies sold no items other than drugs intended for humans, while the same proportion of rural pharmacies sold no items other than drugs intended for humans and livestock. Pharmacies did not commonly diversify their sales base by including other items such as food or toiletries, and therefore turnover was not often supplemented by other non-pharmacy sales, as they were not structured to function as general stores.

Operating model
A quarter of pharmacies were owned by individuals who typically owned one to three other pharmacies. However, most proprietors owned one pharmacy as a single small business.

All pharmacies were open at least six days a week, and most pharmacies were open seven days a week, and with very few exceptions were on average open 11 hours a day (over sixty hours a week) in both urban and rural locations.

3.2.3 Human Resources
Overview
Pharmacy survey interviews were conducted with 47 pharmacy owners and 27 staff members. As the survey team arrived unannounced, this shows a relatively high presence of owners being present at the outlets.

On average, pharmacies were staffed by just two people, typically the owner and one other staff member. The total number of people working in the pharmacy was slightly higher in urban (2.3) than in rural (1.5) pharmacies. Staff respondents had worked in the pharmacy for an average of 3.5 years, while slightly over a third had been working for just a year or less.

One third of pharmacies visited reported having a female employee (41% of rural and 30% of urban), while eight percent were actually owned by women.
Respondents were asked to share their own health qualifications as well as those of the owner and other staff, if appropriate. They were also asked to confirm the number of years they took to become qualified. Discretion was used by the survey team if a qualification was impossible to attain within the number of years claimed as having studied. For example, it was fairly common for a respondent to report being a qualified nurse after having studied a total of one year, or a MD to report having studied for a total of two years. Some respondents reported being nurses but could not explain what type of nurse, or claimed that they were made nurses by means of a first-aid course. The survey team only recorded qualifications if the information given was verifiable. Other surveys have similarly reported this challenge when collecting information on health qualifications in the private sector and an assessment of private facilities (including pharmacies) stated that many claims of staff qualifications (even nursing qualifications) were seen as suspect. The 2008 MoHL Hargeisa pharmacy survey found a 20% drop between staff who were reported to have qualifications and those whose qualifications could be supported by certificate or details on the institution and graduation date. About one-third of those who claimed to be medical doctors were unable to substantiate it (Annex 2).

Qualifications

According to the MoHL regulatory provisions, a pharmacy can be headed by a pharmacist, medical doctor or professional nurse. It is reported that there are few trained pharmacists in Somaliland, perhaps as few as four individuals. As of 2008, pre-service institutions capable of graduating pharmacists, pharmacy technicians or pharmacy assistants were not established in Somaliland. The proposed Somaliland Pharmaceutical Corporation (2001) was drafted with the eventual responsibility of “develop[ing] a system for the evaluation, standardization and recognition of all pharmacy and pharmacy related training programmes in Somaliland including continuing pharmacy education in consultation with other stakeholders.” The corporation is not currently in effect.

A review of pre-service training in all of Somalia found that Puntland’s College of Health Sciences in Bossaso was planning to start a pre-service pharmacy course in 2010. When initiated, this would potentially be the nearest training location for Somalilanders.

As shown in Figure 2.4, pharmacies were typically owned by a nurse and additionally staffed by an unqualified person. Eighteen percent of all pharmacies had nobody (neither staff nor owner) with a health qualification. The dominance of nurses in the sector was similarly documented by the 2008 Hargeisa pharmacy survey (Annex 2) and other literature. This trend might be partially explained by the lack of training institutions for other cadres, as well as the particular legal environment which allows it.

Fifteen percent of urban and thirty percent of rural pharmacies were not owned by a health professional of any kind. Owners with health qualifications had studied an average of almost three years to attain them. Those owners who were unqualified had studied a health field for less than a year, or 10½ months on average.

Staff tended to be less qualified than owners. Less than half of staff in the pharmacies had any type of health qualification, while the most common qualification reported was auxiliary nurse. This suggests that it is generally the owner’s knowledge and health expertise which is relied upon to operate the pharmacy.

Staff with health qualifications had completed two years and five months of training to attain them, while staff with no health qualification had attended some health training for an average of just seven weeks.

Time elapsed since last training
Respondents were asked to recall the last time they were trained in a health-related subject. Eight percent of respondents had never attended any training or schooling in a health-related subject, and thus could not reply to the question.

The range of response was very wide (from one month to 44 years ago), reflecting the patchy nature of continuing education for private sector health workers. About 16% of trained respondents in all pharmacies had not received trained in 10 years or more. On average, rural respondents reported having been trained more recently than their urban counterparts. This apparent difference is likely due to the fact that rural pharmacy workers more frequently doubled in public sector facilities where access to training is more regular.

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**Figure 2.4 - Pharmacy personnel health qualifications**

<table>
<thead>
<tr>
<th></th>
<th>Qualified nurse</th>
<th>Auxiliary nurse</th>
<th>MD</th>
<th>Pharmacy technician</th>
<th>Lab technician</th>
<th>Other (dentist, etc)</th>
<th>None</th>
<th>No response</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owners:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>36%</td>
<td>19%</td>
<td>17%</td>
<td>2%</td>
<td>0%</td>
<td>4%</td>
<td>15%</td>
<td>4%</td>
<td>100</td>
</tr>
<tr>
<td>Rural</td>
<td>33%</td>
<td>33%</td>
<td>0%</td>
<td>4%</td>
<td>0%</td>
<td>4%</td>
<td>30%</td>
<td>3%</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>35%</td>
<td>24%</td>
<td>11%</td>
<td>3%</td>
<td>0%</td>
<td>4%</td>
<td>20%</td>
<td>3%</td>
<td>100</td>
</tr>
<tr>
<td>Staff *:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8%</td>
<td>27%</td>
<td>0%</td>
<td>6%</td>
<td>4%</td>
<td>1%</td>
<td>54%</td>
<td>0%</td>
<td>100</td>
</tr>
</tbody>
</table>

*Too few staff were reported in rural pharmacies to provide breakdowns.

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Half of all rural pharmacy respondents reported receiving training during the previous year, while this figure was closer to two years for half of urban respondents. The mean is much higher due to the presence of extreme outliers, such as nurses who graduated 40 years ago but without follow-up training since then.

### Means of learning

Given that most owners and staff were either nurses or without any health qualification, respondents were asked how they managed to learn about the drugs they sell. Self-study by reading pharmaceutical leaflets was the most common way that respondents depended on learning, followed by self-study through other means.

### Figure 2.6 - Respondents’ methods of learning about drugs sold in the pharmacy

It was fairly common for respondents to explain that they simply knew about the drugs from long experience. When this occurred the survey team would try to probe for an actual means of learning, but this was not always possible. Many respondents insisted that they knew the drugs simply because they had been working in a pharmacy for 10 years, because of many years working as a nurse, or a similar explanation. These responses were therefore coded as ‘from experience’ in Figure 2.6.

Another important way of learning was direct transfer or information from owner to staff, or from other peers. This points to a lot of informal on-the-job training with no pre-service or other requirements.
Actual training was only the fifth-most named means of learning about drugs, with the most important method being through self-study.

No respondents mentioned learning from drug representatives, and just a handful expressed learning through different avenues such as from wholesalers or the MoHL. Only six pharmacies reported ever having been visited by the Pharmaceutical Association of Somaliland, all of which were located in Hargeisa and most of which were confined to the centre sub-district of 26 June. The association would ideally be charged with linking pharmacy owners and staff with continuing education, disseminating codes of conduct and otherwise professionalizing the sector82.

3.2.4 Common illnesses presented to pharmacies

Respondents described the presentation of clients’ illnesses in *concordance with morbidity in Somaliland. Respondents were allowed to name more than one type of common illness.

*Figure 2.7*

![Children's illnesses most often presented to pharmacy](image)

**Percent of pharmacies reporting illness**

<table>
<thead>
<tr>
<th>Illness</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gastrointestinal and diarrhea</td>
<td>73%</td>
</tr>
<tr>
<td>Respiratory and colds</td>
<td>66%</td>
</tr>
<tr>
<td>Malnutrition</td>
<td>9%</td>
</tr>
<tr>
<td>Malaria</td>
<td>9%</td>
</tr>
<tr>
<td>Scabies</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
</tr>
</tbody>
</table>

More than one response allowed, total ailments named = 142; average number named = 1.9

In terms of child illnesses there were no major differences between urban or rural areas, with the exception of malaria and scabies which were more frequently presented to rural pharmacies. By far the most common were gastrointestinal and diarrhoeal complaints, followed by respiratory illnesses and colds.

For adults, a high percentage of respiratory and gastrointestinal/diarrhoeal illnesses were also reported. Reports of other commonly presented illnesses spanned a much broader range, from rheumatism to STI treatment. This suggests that adult clients use pharmacies for a large spectrum of health management needs.

3.2.5 Drugs, services and reported practices

**Drug sales**

Respondents were asked about their most frequent sales items, at a later point in the survey. The range in response was quite narrow and it was evident that pharmacies’ core business consisted of sales in antibiotics, pain relievers and vitamins.
Figure 2.9 - Most common drugs sold

Antibiotics were by far the top-selling medicines, especially in rural pharmacies. Ampicillin or amoxicillin in syrup form were frequently mentioned in urban areas, while tablets were more common in rural areas. There was a poor match between the reported presentation of clients with diarrhoea to pharmacy and the sale of anti-diarrhoeals. This might point to the prescription of antibiotics in such cases.

The survey team asked respondents to describe their typical behaviour when clients ask to buy antibiotics, such as amoxicillin. Similar studies using mock clients in other countries have captured gaps in what drug retailers say they would do and what they actually do. It can therefore be expected that actual behaviours vary from the results shown in Figure 2.10.

Most respondents explained that they would ask for more details of symptoms in order to confirm that amoxicillin would be the appropriate course of action, showing that the majority of pharmacies admitted to diagnosing clients on the spot. There was a large difference in reported behaviour between rural and urban pharmacies. One third of urban pharmacies said antibiotics are not over-the-counter medicines and insisted that the client would not be sold amoxicillin without a prescription. This was hardly found in rural pharmacies (just one), which perhaps reflects their more isolated environments (i.e. there is no nearby provider to give the prescription), as well as a lower distinction between prescription and non-prescription drugs. One in ten rural pharmacies reported that they would simply sell amoxicillin if asked, while no urban pharmacies said they would do so. The survey team found some responses to be quite alarming, for example one retailer explained that they would insist on a prescription for amoxicillin ‘unless the client just wants a little bit.’

A 2001 assessment of the pharmaceutical sectors in Somaliland and Puntland found poor standards of practice overall, with no major differences between private and public prescribers. These included high use of injections and polypharmacy, and there was also common use of brand name medicines over generics85.

Respondents were asked which drugs they believed could help clients’ health the most if made cheaper. By far the most common type of drug named was an antibiotic (by 70% of urban and 80% of rural pharmacies). This might mean that clients have difficulty meeting the costs of antibiotics and might also reflect respondents’ perceptions that antibiotics are very good medicines for health. It would be important to understand whether the positive perception is matched with appropriate caution surrounding over-prescription and incorrect dosing. It is clear however, that antibiotics are by far the top-selling drugs in private pharmacies in both rural and urban areas, and that most respondents do not insist on a prescription.

The second most common type of “drug” named to help clients’ health was vitamins, mostly iron and Vitamin C. There was a strong sense among both urban and rural respondents that vitamins are very beneficial, and were similarly amongst the top-selling drugs reported.

Finally, respondents were asked to describe how they manage situations where a client cannot afford the full course of the medicine he or she needs. Responses showed that pharmacies have mechanisms to deal with clients who lack funds. Most pharmacies used a combination of credit and discounts to handle client inability to pay, but credit was even more common in rural areas. It was frequently expressed that clients known to pharmacy staff would be offered credit, while other individuals would receive a one-off discount to complete the sale. This might explain why more than three-quarters of rural pharmacies offered credit, presuming that they would know most members of their community. Selling smaller doses than the full course needed was reported by 13% of urban and 7% of rural respondents. About 15% of urban pharmacies and no rural pharmacies said that they would send a client away in the event they had insufficient funds.
Essential medicines

A short list of 10 essential medicines was checked in the pharmacies. This included whether the medicine was in stock on the day of the interview, the price per smallest unit, cost per unit, country of origin and expiry date. The medicine had to be in the specified milligrams and form (i.e. injection) to be counted as being in stock, as shown in Figure 2.13. Essential medicines were selected by the revolving drug fund “Hargeisa Group Hospital responsible, and included amoxicillin, omeprazole, co-trimoxazole, ibuprofen, ceftriaxone, metronidazole, cimetidine, diclofenac sodium, sodium chloride and ringer lactate.

On average, pharmacies visited had six out of 10 of the essential medicines checked in stock (seven in urban and four in rural pharmacies). This points to a smaller range of stock in rural pharmacies, as might be expected. An exception was amoxicillin 250 mg capsules, which urban pharmacies often carried in syrup or in 500 mg capsules and therefore appeared to have it less frequently in stock.

Expiry dates were verified for the 10 essential medicines. Over 400 essential drugs were examined and only one case of expired medicine was observed. It was not within the capacity of the survey to establish whether packaging had been tampered with or if drugs had been repackaged to reflect different expiry dates. However, there seemed to be a high level of attention paid to expiry dates overall, and the frequency with which pharmacies restock themselves is testament to caution in this regard. It is possible that the reported restocking practices helped to reduce the presence of expired medicines in the pharmacies visited (see following section).

A brand of ceftriaxone of false origin was frequently seen for sale in Borama and Hargeisa urban pharmacies (15% of all urban pharmacies carried the brand, but none of the rural did so). The manufacturer’s address was listed under an invented location in the USA, but the survey could not determine whether the medicine itself was fake.

Prices of essential medicines that were checked were usually lower in urban pharmacies compared to rural ones, which perhaps attests to the active competition between pharmacies in urban centres.

Few systematic quality control studies have been carried out in Somaliland, although the quality of drugs has been repeatedly questioned in the literature. On the other hand, WHO coordinated the testing of a small sample of drugs from Hargeisa pharmacies at laboratories in Nairobi. Despite concerns, the exercise did not find alarming results.

Stock management

Just eight percent of pharmacies stored drugs in any place other than display shelves, such as in another room, in storage, or in boxes on the floor. Shelving was generally dry and not exposed to the sun, although some locations were hot. The common practice included keeping small stocks, serving small client loads and making frequent trips to restock. This essentially promotes a de-facto first-in, first-out management whereby capital investment in stocks is low and carefully replenished. Such a system promotes low investment in capital stock, high turnover, low rates of expiration and flexible provision of drugs according to demand.
Few respondents reported using an in-out registry for drugs. This is not surprising, since 92% of pharmacies did not keep stocks other than those displayed, and stock-taking would not be a complicated endeavour. If pharmacies kept any documentation, it tended to be a folder of invoices from the purchases made at the wholesaler.

**Drug purchasing**

Pharmacy respondents were asked to describe the channels through which they obtain the drugs they sell. Almost all (97%) reported buying primarily directly from importing companies, while just two pharmacies bought from middlemen wholesalers. None reported buying from larger pharmacies. There is little literature detailing pharmaceutical distribution chains in Africa in general, but Somaliland’s chain seems comparatively direct due to the lack of middlemen between importers and pharmacies\(^91\). Importers and wholesalers are described in Chapter 3 of this report.

Whether in remote rural locations or in urban areas, all pharmacies but one regularly sent their own staff to purchase from importers. About a quarter noted that they supplement stocks by organizing casual deliveries or by purchasing from hawkers. On the other hand, many respondents said that drug hawkers were available to them, but that they never buy from them. Hawkers were described as individuals who carry a selection of drugs to sell to pharmacies and were seen by the survey team on a few occasions. Respondents’ low reported use of hawkers therefore raised the question as to where these individuals were finding their markets, and the survey remained inconclusive about the role of hawkers in the pharmaceutical distribution chain.

### Figure 2.13 - Select essential medicines in private pharmacies (n=74)

<table>
<thead>
<tr>
<th>Essential Medicine</th>
<th>Amoxicillin 250mg/ cap</th>
<th>Omeprazole 20mg</th>
<th>Co-trimoxazole 400mg +80mg</th>
<th>Ibuprofen 400mg film coated</th>
<th>Ceftriaxon 1g, powder for injection</th>
<th>Metronidazole 5mg/ml, 100ml for injection</th>
<th>Cimetidine 200mg/2ml for injection</th>
<th>Diclofenac sodium 75mg/3ml for injection</th>
<th>Sodium chloride 0.9% 500ml bag IV not included</th>
<th>Ringer lactate 500ml btl IV not included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacies Urban</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>with drug in Rural</td>
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<tr>
<td>stock (%): Total</td>
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<tr>
<td>Average price per unit:</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most common country of origin:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Pharmacies located outside of these two cities therefore required staff or owners to travel substantial distances to restock, on average 110 kilometres, which was typically done once every two weeks. By comparison, pharmacies in Burao and Hargeisa enjoyed the convenience of proximity and consequently restocked on average twice a week. All respondents said they purchased from several wholesalers so as to shop around for the best prices, which again attests to their concentration and suggests active competition between importers.

Figure 2.15 - Patterns in drug purchasing for pharmacies inside Hargeisa/Burao cities, compared to those in the rest of Somaliland (n=74)

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance travelled to wholesaler</th>
<th>Visits per month</th>
<th>Number of wholesalers used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hargeisa/Burao pharmacies (n=32)</td>
<td>2.5 k</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>Other pharmacies (n=42)</td>
<td>110 k</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>
At any location, reported restocking practices were very regular. Only a small proportion of pharmacies (five percent), mostly rural, restocked less than once a month. This is coherent with the fact that few pharmacies stored drugs anywhere other than on the display shelves.

**Services, resources and amenities**

Just 12% of respondents said that the pharmacy only sold drugs without offering any other health services, such as injections. Urban pharmacies offered a wider range of additional services, while rural pharmacies more often offered particular services such as house calls and birth attendance. Other services included maternity, male circumcision, setting bones, hepatitis vaccinations or specialist services like optometry.

<table>
<thead>
<tr>
<th>Services</th>
<th>Urban</th>
<th>Rural</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injections</td>
<td>89%</td>
<td>78%</td>
<td>85%</td>
</tr>
<tr>
<td>Stitches &amp; dressings</td>
<td>70%</td>
<td>74%</td>
<td>72%</td>
</tr>
<tr>
<td>House calls</td>
<td>43%</td>
<td>63%</td>
<td>50%</td>
</tr>
<tr>
<td>Blood tests</td>
<td>28%</td>
<td>30%</td>
<td>28%</td>
</tr>
<tr>
<td>Urinalysis</td>
<td>23%</td>
<td>26%</td>
<td>24%</td>
</tr>
<tr>
<td>Attend births</td>
<td>2%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>17%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>Drug sales only</td>
<td>9%</td>
<td>19%</td>
<td>12%</td>
</tr>
</tbody>
</table>

A quarter of pharmacies, mostly urban, were advertising laboratories. This is contrary to the regulatory provisions of the MoHL, which state that laboratories and pharmacies should not be conjoined. The 2008 MoHL Hargeisa pharmacy survey found that about one in five pharmacies had laboratories and the majority of these had obtained the MoHL permit (59.5%), suggesting either that these regulatory provisions are not considered when extending MoHL permits, or that pharmacies simply opened laboratories after attaining the permit.

Urban pharmacies were almost all located in brick buildings and tended to have quite spacious premises. Rural pharmacies were often smaller and more varied in building materials and types (from brick to traditional mud, *Agal* or simple tin shacks). Most pharmacies (82%) had private spaces for injections or consultations (the rest tended to serve across a window counter). This was usually a sectioned off area with a curtain, offering more visual than auditory privacy.

Rural pharmacies had less equipment and fewer amenities or resources available to them, compared to urban pharmacies visited.
3.2.6 Connections to other health providers and facilities

Thirty percent of pharmacies had at least one staff member who worked in another health facility, almost always in the public sector. This was similar for both rural (33%) and urban (27%) respondents.

More than half of urban pharmacies reported that clients often presented prescriptions, and about 90% said that clients had prescriptions at least sometimes. It would appear that clients do go to both private and public clinical service providers, and are referred to the private sector for the purchase of medicines. In rural pharmacies the presentation of written prescriptions was far less common, with half of respondents reporting that clients never presented them.
Urban respondents described a much higher presentation of prescriptions originating from the private sector, compared to their rural counterparts. This speaks to the greater availability and use of clinical private services in urban areas. Meanwhile, rural respondents more frequently filled prescriptions from the public sector, which might suggest that clients at rural public facilities face more stock-outs (or lack of desired drugs) and are more often sent to a private pharmacy to acquire drugs. Respondents were asked if and to where they refer clients when they feel they cannot address their health needs. Almost all respondents (97%) responded that they regularly refer clients. Urban respondents did so according to types of complaint, using a mix of private providers, specialists and public services. Rural respondents simply referred the client to the nearest public facility (either MCH or regional hospital; health posts were never mentioned).
3.2.7 Family planning

The pharmacy survey included a section dedicated to family planning, in recognition that these products are subject to different barriers, perceptions and demand patterns than other types of products. Very little is known about the extent of private sector involvement in overall RH services in Somaliland.

Figure 2.20 - Family planning method availability (n=74)

<table>
<thead>
<tr>
<th></th>
<th>Sells oral contraceptives*</th>
<th>Sells injectables*</th>
<th>Sells condoms*</th>
<th>Sells any FP method*</th>
<th>Clients ask about FP in pharmacy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>40%</td>
<td>9%</td>
<td>11%</td>
<td>43%</td>
<td>77%</td>
</tr>
<tr>
<td>Rural</td>
<td>11%</td>
<td>4%</td>
<td>0%</td>
<td>11%</td>
<td>37%</td>
</tr>
<tr>
<td>Total</td>
<td>30%</td>
<td>7%</td>
<td>7%</td>
<td>31%</td>
<td>62%</td>
</tr>
</tbody>
</table>

* Had method for sale on day of survey

While 62% of pharmacies reported that clients ask about FP, just 31% sold methods of FP, with oral contraceptives the most commonly found method of FP available. There were differences in responses shared by urban and rural respondents whereby rural pharmacies had less FP availability, and fewer reported that clients ask about the methods.

Pharmacies carried only two types of oral contraceptive; the most common was the generic (Schering), and Prudence from Ethiopia was available in a small number of locations in Awdal and Maroodi Jeeh. All injectables were Depo-Provera brand. The five pharmacies which sold injectables also provided the injection service and had private injection areas available. Condom brands were not checked by the survey team, but were said to originate from Ethiopia and China.

Figure 2.21 - Price and turnover of FP methods (n=23)

<table>
<thead>
<tr>
<th>FP method</th>
<th>Average price</th>
<th>Average number sold per month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral contraceptives (n= 24)</td>
<td>4200 / cycle (0.628 USD)</td>
<td>13 cycles</td>
</tr>
<tr>
<td>Injectable (n= 5)</td>
<td>6600 / injection (0.985 USD)</td>
<td>4 injections</td>
</tr>
<tr>
<td>Condoms (n= 5)</td>
<td>700 / piece (0.104 USD)</td>
<td>24 pieces</td>
</tr>
</tbody>
</table>

(Note: N based on count of method not pharmacy. Some pharmacies carried more than one type of oral contraceptive. Price calculated at 6,700 Somaliland Shillings to 1 USD)
On average, oral contraceptives were selling for about sixty US cents per cycle, while the three-month injectable sold for one US dollar and condoms were about 10 US cents each. All methods seemed to have a slow turnover in pharmacies which sold them.

Nearly 70% of respondents reported not selling any FP methods at all, and were asked why they did not. Rural and urban responses were largely the same. The most common reason for not selling FP was said to be low demand; therefore, while 61% reported that clients ask about FP in the pharmacy, it appears that many respondents did not perceive demand to be high enough keep FP in stock. Only 16% of respondents said that they did not sell FP due to conflicting beliefs.

Figure 2.22 - Reasons given for not selling FP amongst 69% of all pharmacies

All respondents were asked whether they would recommend FP methods to clients. The question was poorly formulated, in that it often confused the respondents to say whether they would prescribe FP or not. The figure is therefore unreliable, but the majority of respondents answered positively. This merely indicates that pharmacy staff and owners who felt very negatively about FP were in the minority.

Respondents were also asked where they purchase FP commodities. One quarter of those selling FP said that they specifically bought the methods from hawkers, while the others reported buying commodities from wholesalers. This shows that FP is being imported to Somaliland through private companies, but also hints at the possibility of the hawker trade supplying these particular commodities from Ethiopia (one brand of OC, Depo-Provera and all condoms originated from Ethiopia).

When asked if and to where respondents refer clients wanting family planning services, urban and rural pharmacies were matched in sending clients to the public sector, usually to Mother and Child Health (MCH) centres. This indicates that MCHs are seen as the expected source of FP/RH services over and above options in the private sector. Meanwhile, a 1998 assessment of private reproductive health services held focus group discussions with women's groups which revealed that the women overall would prefer to access RH services in the private sector.

Compared to general referrals, respondents more commonly reported not sending clients anywhere to access FP services. Non-referral jumped from 4% to 19% in rural pharmacies when FP was the specified health need.

### 3.3 Private pharmacy survey conclusions

The following section puts forth a number of conclusions based on key findings of the private pharmacy survey. These conclusions are discussed more extensively in Chapter 6.

**Conclusion 1:** Pharmacies are extremely relevant in terms of access.

**Conclusion 2:** Private pharmacies are small but competitive operations.

**Conclusion 3:** Private pharmacies have a high proportion of professional owners – but refresher training of the private pharmacy owners and staff is imperative.

**Conclusion 4:** There are potential strengths in the composition of human resources.

**Conclusion 5:** Pharmacies work in connection with the rest of the health sector.

**Conclusion 6:** Pharmacies are generally not opposed to selling FP methods.

**Conclusion 7:** The regulatory environment is extremely weak.
As described in para. 1.2.4, the use of private pharmacies has been shown to be high across various cross-sections of Somaliland. Their extensive presence on the ground, from nomadic and settled rural areas to the biggest urban centres, is further testimony to their popularity and viability.

The following section present results from a limited number of interviews (38) with urban pharmacy clients. The exit survey was intended to deepen the relevance of other findings in this report by briefly indicating the profile of urban clients and what drives their choice in seeking care in private pharmacies. In addition, desk review materials have been added when relevant to describing the population’s interaction with pharmacies.

4.1 Client exit survey methodology

4.1.1 Sampling

In total, 38 urban pharmacy clients were successfully interviewed outside of 17 pharmacies located in the three biggest cities visited for the pharmacy survey: Borama, Burao and Hargeisa. Rural pharmacy clients were not interviewed.

To be eligible for interview, clients had to be buying medicine on the day of the survey, be at least 15 years of age and express verbal consent. Many clients were children 14 or younger and were not interviewed.

This sampling was opportunistic and not representative of the general population or the total universe of pharmacy users. The findings only suggest what type of information might emerge regarding the profile and perspectives of urban pharmacy clients. A more robust sampling frame and methodology would need to be created to generate stronger data.

4.1.2 The interview

While the pharmacy survey interview was underway inside, another interviewer took the opportunity to speak with any available pharmacy clients outside outlets in Borama, Burao and Hargeisa. Interviews were conducted in Somali by a local interviewer and a structured questionnaire of 14 questions was used to gather information.

4.1.3 Challenges and shortcomings

It was common for the interviewer to find no clients present on location during the approximate half-hour duration of visit. In such cases, the interviewer was forced to move on to the next location as all activities were carried out in tandem with the pharmacy survey team.

In rural locations even fewer clients were found at the time of the pharmacy survey interview. The arrival of the research team in small villages disrupted normal activities to the extent that pharmacy clients could not be easily identified. It was deemed that the method was
inappropriate for rural data collection, and therefore only urban clients were interviewed.

4.2 Client exit survey findings

4.2.1 Description of the clients
The resulting sample was composed of 16 men and 22 women, with a mean age of 29. About 45% (17/38) said they had no education, while the rest had at least some schooling.

Figure 3.1 - Drug purchase decision making amongst urban clients buying medicine on day of survey (n=38)

It appears from both the client interviews and from pharmacy interview findings that the practice of presenting prescriptions is quite common in Somaliland urban centres. Four out of 10 clients had prescriptions, while two out of 10 were buying medicine they had used before or used regularly.

A further 10% of clients interviewed were buying drugs based on pharmacists’ advice; slightly fewer said they were purchasing medicine on a health professional’s advice, but lacked the actual prescription.

About a third of clients were buying medicine for another person by proxy, and two-thirds said they were buying for themselves. Many children aged 14 years or younger were purchasing medicine, but were not interviewed due to the selection criteria. It might be presumed that these purchases were often made by proxy for a family member.

4.2.2 Decision-making for drug purchases
The clients were asked whether they had a prescription and if not, how they knew what medicine to buy. Responses are shown in Figure 3.1.

Very few clients relied on word of mouth or informal ways of deciding what to buy.

4.2.3 Decision-making when using a private pharmacy
Pharmacy clients were asked why they chose to visit a pharmacy instead of a public facility. These were all urban clients, interviewed within a short distance of public facilities. Nevertheless, the largest single reason for choosing a private pharmacy was said to be distance, indicating that the clients found the pharmacy access to be convenient.
While clients were not asked to reveal the complaints they sought to treat, severity of illness is likely to be a strong factor in the choice of service provider, increasing the willingness to go further to seek more trusted medical input. The use of public facilities ‘only when one is sick enough’ has been documented in the literature\(^93\). Meanwhile, the pharmacy survey in Chapter 2 found that adults use the pharmacy for a wide range of ailments.

**Figure 3.2 - Urban clients’ reasons for using the pharmacy (n=38)**

<table>
<thead>
<tr>
<th>Quality related reasons</th>
<th>Access related reasons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of service/drugs</td>
<td>Reputation</td>
</tr>
<tr>
<td>Why a private pharmacy instead of a public facility?</td>
<td>27%</td>
</tr>
<tr>
<td>Why this pharmacy over any other pharmacy?</td>
<td>35%</td>
</tr>
</tbody>
</table>

If distance and time are combined, these two reasons account for half (49%) of all responses regarding the choice of a pharmacy over a public facility. The other half relate to perceptions and experiences of quality, including reputation and the availability of drugs. No respondents said they were motivated by price.

In a 2005 survey amongst IPDs in Hargeisa district, respondents in focus group discussions explained that as they must pay for public health facilities due to the cost-sharing mechanism, they could just as well use the same money on comparatively efficient private pharmacy services\(^94\). Clients were then asked why they had chosen a particular pharmacy over any other pharmacy in town (all locations had multiple pharmacies). In this instance perceived quality, including the pharmacy’s reputation and availability of drugs, was more important in selecting a particular pharmacy as reported by 65% of respondents.

Distance was the reason given by a third, and price was mentioned by almost none of the interviewed clients.

**4.2.4 Perceptions of quality and price**

When asked to rate the cost of drugs and services from a private pharmacy, most clients said the costs were acceptable to them while 16% said that meeting costs is difficult.

While rating quality of drugs and services from a private pharmacy, more than two-thirds of clients said that quality is good, while almost a third said that it is acceptable and none said that it is poor.

It should be remembered that responses from this client exit survey come from a self-selected group who had already accepted to use the pharmacy and therefore do not cover those excluded from the pharmacy by price or lack of trust.

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Clients were also asked to rate pharmacy staff and services along different criteria, which gave similarly positive feedback as shown in Figure 3.3. In particular, three-quarters of interviewees expressed that the advice they receive from a pharmacy matters ‘very much’ in family health decisions.

**Figure 3.3 - Client estimation of pharmacy services (n=38)**

<table>
<thead>
<tr>
<th>The extent to which:</th>
<th>Little</th>
<th>Somewhat</th>
<th>Very much</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pharmacy is able to meet health needs</td>
<td>5%</td>
<td>30%</td>
<td>65%</td>
<td>100%</td>
</tr>
<tr>
<td>Pharmacy staff are knowledgeable</td>
<td>19%</td>
<td>19%</td>
<td>62%</td>
<td>100%</td>
</tr>
<tr>
<td>Pharmacy advice matters in health decisions</td>
<td>5%</td>
<td>19%</td>
<td>76%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The sense of quality from clients’ perspectives has rarely been explored in the literature. One focused group discussion revealed that pharmacies may be perceived to be of high quality because health specialists often operate their own private pharmacies⁹⁵.

On the other hand, health stakeholders have repeatedly expressed alarm due to the absence of regulation and presumed irrational and profit-driven behaviour of pharmacies. In recent years, the *Somaliland Times* has printed two editorials focused on lack of quality controls in pharmacies, which may hint at the spread of this concern amongst certain strata of the public.

The acceptability of services provided by pharmacies is not discussed in the literature, although the apparent high utilization speaks of their popularity. Much of this popularity is likely to be due to the fact that pharmacies simply suit current health-seeking practices, which are largely curative in nature, as well as the value placed on drugs over consultation with a health professional⁹⁶ ⁹⁷.

**Interventions targeting pharmacy clients:**

A 2008 literature review of 16 interventions to improve drug seller performance in Africa found that strong interventions include a community information component, as client knowledge is an important determinant of the outcome when drugs are bought from a pharmacy.

The review did not identify any studies evaluating socioeconomic groups that benefited most from the interventions, while there was evidence that they had impact in generally poor communities.

This survey’s desk review did not find reference to initiatives targeted at improving Somaliland pharmacy client knowledge or behaviour, past or present.

### 4.3 Client exit survey conclusions

The following section presents a number of conclusions based on findings of the client exit survey and desk review. These are discussed further in Chapter 6.

**Conclusion 1:** Pharmacies were not the only point of care for urban clients.

**Conclusion 2:** Urban clients used the private over the public sector for both convenience and quality reasons.

**Conclusion 3:** There was a high degree of trust and satisfaction amongst urban pharmacy users.

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⁹⁷ UNICEF. *Multiple Cluster Surveys (MICS) and Millennium Development Goals (MDG) Indicators, Somalia, 2006. UNICEF Somalia 2006.*
5.1 Distribution chain description methodology

5.1.1 Desk review
The desk review sought to collect information on the pharmaceutical distribution chain in Somaliland. Any relevant documentation was used to piece together an overall picture of procurement and wholesaling. Recommendations on improvements have been consolidated.

5.1.2 Importer interviews
The desk review failed to identify materials relevant to private importers and wholesalers who, in fact, dominate the distribution chain. The survey team therefore interviewed four pharmaceutical importing companies in order to obtain more detail on operations. Interviews took place in October 2008 in Hargeisa, using a short questionnaire of eight questions (Annex 9).

5.2 Distribution chain description

5.2.1 Legal environment
In 2001 UNICEF seconded a consultant to assist the Republic of Somaliland’s MoHL in drafting rules for the registration of drugs. The simultaneously proposed National Pharmacy Regulatory Authority was to be assigned responsibility to oversee the process subsequent to creation of the authority. However this has not taken place, and there is no capacity to carry out meaningful registration of medicines, with pharmaceutical importers operating according to their own discretion.

The government has meanwhile issued some guidelines for private health practices, outlining regulatory provisions. These state that pharmaceutical wholesalers are barred from retail selling of drugs.

The companies interviewed included:

- Libaan & Iiman Medical Wholesalers
- Mubarak Medical Wholesalers
- Shaafici Pharmaceutical Trading Company
- Burhan Pharmaceutical Trading Company

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5.2.2 Importation of drugs

There are estimated to be seven major pharmaceutical importing agencies in Somaliland, four of which were interviewed by the survey team in October 2008 and probably represent the greater share of the market.

Drugs are imported into Somaliland mainly through the private sector and international aid organizations. The government was unable to procure drugs prior to 1991, and does not do so now.\(^1\)

The national referral hospital (Hargeisa Group Hospital) manages a revolving drug fund using financial support from Comic Relief and some technical assistance from Tropical Health and Education Trust (THET). The fund brings in quality generic medicines, receives a tax waiver on importation and manages to sell prescriptions at a price about 35% less than their equivalents in private pharmacies, despite a mark-up of 70%\(^2\). The intention is that the fund replenishes itself by means of the cost-sharing mechanism with HGH patients. This is currently the only example of public procurement in the whole of Somalia and Somaliland; it is currently limited to the one public hospital and it fills 80 to 100 prescriptions a day.

International NGOs and UN agencies do not share a common procurement and importation system, which suggests the possibility of many parallel systems. Meanwhile, UNICEF provides standard drug kits to all MCHs and Health Posts, whether these are operated by NGOs or the MoHL.

Private sector importers are located primarily in Hargeisa and pay importation taxes through the port of Berbera. Many of the importers find markets over the border and are thus not selling only to Somaliland markets.\(^3\)

Reviewing taxation information in Berbera could give an indication of the total value of pharmaceuticals brought in by companies, but this would fail to capture how much remains in Somaliland. However, it is evident that private procurement is the most substantial mechanism at this time.

The predominant distributors could not be identified, because companies named by importers were expansive. They reported purchasing from multiple manufacturers and distributors in Europe, Asia, Africa and the Arab world. Three of the four used at least 10 different channels to import drugs, while the smallest only used three distributors. It is clear that these Somaliland-based importers are clued into a market purchasing from all corners of the globe, and maintain their own decision-making about what exactly to import.

One importer described that they have a particularly strong purchasing relationship with an Egyptian distributor, which influences what they buy and makes it easier to keep on top of ordering. The rest of the drug purchasing is influenced by demand and selected from amongst the best offers. Another described that they keep a seasonal and monthly database of sales in order to predict changes in demand, thereby ensuring they have the right range of drugs available in appropriate quantities. However, all of them reported stock-outs as a normal occurrence.

Half of the companies interviewed also imported veterinary medicines.

5.2.3 Wholesaling to Somaliland pharmacies

According to the municipality, Hargeisa had 16 pharmaceutical wholesalers operating as of 2006. Population Services International (PSI)/Somaliland maintains a Somaliland-wide list of about the same number of wholesalers.

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While much of the market may lie over borders, Somaliland importers typically maintain wholesaling functions to pharmacy retailers. There is little literature detailing private pharmaceutical distribution chains in Africa in general, but Somaliland’s chain seems comparatively direct due to the common lack of a middleman between importers and pharmacies\textsuperscript{105}.

All importers interviewed were wholesaling directly to pharmacies. The head offices of these companies were all located within a few hundred meters of each other in a section of the 26 June sub-district in Hargeisa.

Each importer maintained a busy front room for direct sales to pharmacy retailers, and a large storage area for pharmaceuticals and offices at the back. As many wholesalers are concentrated in the area, pharmacy retailers can shop around for best prices and source drugs from multiple importers.

Figure 4.1 shows the approximate breakdown of sales by destination, according to interviewees. Three out of the four importers reported doing a greater share of business selling to customers abroad, compared to selling to Somaliland pharmacy retailers.

Figure 4.1: Share of local and cross-border sales of four Hargeisa pharmaceutical importers

<table>
<thead>
<tr>
<th>Wholesaler</th>
<th>Estimated % of sales to Somaliland pharmacies</th>
<th>Estimated % of sales to destinations abroad</th>
<th>Main destination of sales abroad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler 1</td>
<td>40%</td>
<td>60%</td>
<td>Somalia (SCZ)</td>
</tr>
<tr>
<td>Wholesaler 2</td>
<td>75%</td>
<td>25%</td>
<td>Somalia (Puntland)</td>
</tr>
<tr>
<td>Wholesaler 3</td>
<td>30%</td>
<td>70%</td>
<td>Ethiopia</td>
</tr>
<tr>
<td>Wholesaler 4</td>
<td>30%</td>
<td>70%</td>
<td>Ethiopia</td>
</tr>
</tbody>
</table>

The volume of drugs in transit to bigger markets in the Horn of Africa surely allows for a greater range of medicines and brands than might otherwise be available in the relatively small Republic of Somaliland. This scenario probably increases the turnover of stocks.

Importers did not have a system for delivering drugs to pharmacies, but relied on pharmacy staff to come to their outlet points to procure medicines. One importer mentioned that the company would send a few deliveries around Hargeisa only.

Three importers had warehouses in other parts of Somaliland, either in Burao (serving the whole of the east of Somaliland) or well-positioned to sell across the border into Ethiopia and Puntland (such as Lasaanod or Wajaale). Importers currently known to operate in both Hargeisa and Burao include Alla Aamin Drug Wholesalers, Libaan & liman Medical Wholesalers, Mubarak Medical Wholesalers and Shaafici Pharmaceutical Trading Company. As seen in the pharmacy survey, wholesalers in these two towns were by far the most-used by retailers compared to any other location in Somaliland.

Two importers reported having a refrigerated area for drugs that required it, while the other two specified that they did not import drugs needing refrigeration.

5.2.4 Recommendations from the literature

Much of the literature has advocated for public procurement mechanisms to be put in place. Consolidation in procurement may offer opportunities for smoothing supply and reducing costs, while increasing standardization. The potential competitive advantage of pooling drug orders to purchase quality generic medicines has been pointed out\(^{106,107}\). This could have the effect of driving out private procurement of essential medicines, leaving the private sector to procure specialty medicines. However, in Somaliland with its small population and private wholesalers who procure for a much larger market, the advantages may accrue to the private sector rather than the public sector.

Recommendations on improving the private distribution chain were not identified by the desk review, as most were focused on driving them out of the market through building up public procurement. It should also be noted that driving them out of the market will be difficult, considering their lower reliance on Somaliland sales as well as the more expansive private health sector.

5.3 Distribution chain conclusions

The following section suggests a number of conclusions based on this description of the pharmaceutical chain in Somaliland, as gathered from importer interviews and the desk review. These are discussed more fully in Chapter 6.

**Conclusion 1:** Somaliland pharmaceutical importers run a significant business, offering competitiveness and some degree of quality control.

**Conclusion 2:** The distribution chain in Somaliland is short and localized.

**Conclusion 3:** Pharmaceutical sales agents do not appear active, leaving the field open to public intervention.

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A 2008 literature review of 16 interventions to improve drug seller performance in Africa found that interventions with the widest stakeholder buy-in were more successful\textsuperscript{108}.

Key informant interviews were conducted to document (a) stakeholder ideas for improvements and interventions, and (b) prevailing attitudes amongst stakeholders regarding the potential value of working with private pharmacies. Through the desk review, the main players, previous interventions and recommendations are described.

### 6.1 Stakeholder analysis methodology

#### 6.1.1 Key informant interviews

A short questionnaire was developed to guide key informant interviews held on October 2008 with 17 Nairobi and Hargeisa-based stakeholders from the Somalia/land health sector.\textsuperscript{109} Informants were asked seven questions regarding the current role and future opportunity of private pharmacies in Somaliland. These interviews were recorded with permission and transcribed to ensure accuracy during analysis. The questionnaire and list of stakeholders are provided in Annexes 4 and 10.

#### 6.1.2 Desk review

The desk review attempted to collect documentation of previous or current interventions undertaken by stakeholders to improve the performance of the pharmaceutical sector, as well as relevant recommendations which have appeared in the literature in recent years.

### 6.2 Stakeholder analysis findings

#### 6.2.1 View on the current role of pharmacies in Somaliland in the health sector

About half of informants expressed the view that pharmacies have come to fill the wide gaps in access to (public) health services. These informants tended to accept that pharmacies respond to the population’s need but underscored that they are not ideal providers. Rather, their proliferation was seen to be the result of other failures in the health sector and a number of stakeholders specifically linked it to failure of public facilities. The available literature has similarly emphasized that pharmacies are not regulated, while acknowledging their presence on the ground as evidence of the significant role they must play in delivery of the health...
services\textsuperscript{110 111 112}. During interviews, MoHL officials shared the opinion that private facilities and pharmacies are important contributors to health service delivery, especially due to the fact that the government cannot extend all services to the population at this time.

This dynamic presence of pharmacies (or drug shops) was seen to be typical of a protracted crisis whereby public authority has collapsed, or is very weak. In comparable contexts, the role of private pharmacies lessened following significant investment in reconstruction of public authority and welfare institutions, as they were consequently driven out of business.

All in all, this reflected a better-than-nothing attitude with regard to private pharmacies in the current context. However, this view might underestimate some of the particular advantages pharmacies can offer, which make them popular. It may also lead some stakeholders to wait for public sector revival instead of looking to intervene in the private sector. Meanwhile, one study reported that a large majority of Somalis respondents in the diaspora felt that the private sector presents the only way for sustainable health care to succeed\textsuperscript{113}.

Four informants were convinced that pharmacies are actually providing most of the modern health services in Somaliland and that their recognition as major players in health is long overdue. These informants tended to express the opinion that, regardless of shortcomings, services are taking place at these outlets and will continue to do so unfettered, and that there are major opportunities for enhancing public welfare via these pharmacies.

The remaining informants emphasized that pharmacies have a key role as a first port of call or entry point for modern health care. They saw that the outlets have a particular advantage in the dissemination of health information, advice and referral. This perspective focused on what pharmacies are uniquely good at offering, viz. wide access to a space where people first come to talk about their health concerns, and where health seeking behaviour may be influenced.

6.2.2 Estimation of pharmacies’ contribution to the health of Somalilanders

Informants were more prepared to say that pharmacies play a major role in the health sector, than they were to say they have positive impact on people’s health, which points to a critical concern for current quality and standard of practices. This concern must be addressed to win stakeholder support for pharmacy-oriented interventions.

Others pointed to the importance of accessing essential medicines locally as an important contribution to health, especially when considering access challenges and chronic stock-outs seen in the public network. It was also mentioned that pharmacies can manage simple cases such as fever or pain, which would not otherwise reach a health facility. People have better opportunities of getting on with their daily lives as these smaller burdens on health are reduced.

Informants felt that pharmacies often have fairly neutral effects on health, such as selling vitamins and cough syrup that might waste money, but serve demand. Two informants mentioned that part of health care is providing people with a place to go and be heard regarding their health issues, which may have little impact but still gives people a sense of care.

Meanwhile, several others were of the opinion that there is every type of inappropriate provider behaviour going on in the pharmacies, and one person even knew of a case where a Hargeisa pharmacy client died following an injection. About a quarter of stakeholders responded with serious concerns regarding the overselling of antibiotics and sub-therapeutic doses, as well as poor attention to infection prevention.

6.2.3 Views on access to pharmacies by rural and nomadic people

In the words of one informant - “Pharmacies have to make a profit in one way or another. If they are in the rural areas then it shows they are making sales, so that fact alone somehow shows the reach. People there are using them.”

When asked to what extent pharmacies are accessed by rural and nomadic people, the response seemed to depend on where informants were located. Somaliland-based informants were more aware that pharmacies exist in remote locations and emphasized that access is the number one strength that they offer. One of these informants described how traditional healers have been known to work in tandem with pharmacies to provide for their clients, which further indicates some of the potential reach they have into communities. Meanwhile, most Nairobi-based informants believed pharmacies were confined to urban areas and that rural and nomadic people would be unlikely to travel to the city to access one and would be even less likely to have the money to pay, while a few others were unsure of the levels of access for these groups.

6.2.4 Perceived opportunities offered by pharmacies

The most common opportunity mentioned by stakeholders involved training and regulation, although it would seem that these are not actually opportunities that pharmacies offer, but rather what needs to be done to improve concerns about quality. It is possible that stakeholders have difficulty looking at the more positive aspects, when pharmacies continue to operate in such an uncontrolled environment.

About a third of informants felt that the biggest opportunity is to build on what pharmacies already offer, i.e. expanding access to selected important treatments. As one informant put it - “The bottom line is, we could work on improving the public sector for the next 15 years and we would still be nowhere in terms of access.”

Others noted that outlets already enjoy apparent popularity and credibility with the population and that this is no small advantage. Two informants explained that going to the pharmacy appears to be a basic behaviour, and therefore the opportunity is to think how people could be better linked with basic health services and information at that point of contact. Some felt that it was time to consider how to incorporate them into the greater health system, which can build capacity at pharmacy level while helping to ensure a continuum of care for clients.

Similarly, some reports in the literature concluded that the wide presence of pharmacies on the ground represents an untapped resource, while emphasizing that the existing infrastructure is proof of sustainability. There have been several calls to harness the opportunity.

6.2.5 Perceived challenges presented by pharmacies

Many informants said that the biggest challenge with pharmacies is getting them to move in any way against their profits. Three informants shared the feeling that these providers are businessmen rather than health professionals, i.e. expanding access to selected important treatments. As one informant put it - “The bottom line is, we could work on improving the public sector for the next 15 years and we would still be nowhere in terms of access.”

Others noted that outlets already enjoy apparent popularity and credibility with the population and that this is no small advantage. Two informants explained that going to the pharmacy appears to be a basic behaviour, and therefore the opportunity is to think how people could be better linked with basic health services and information at that point of contact. Some felt that it was time to consider how to incorporate them into the greater health system, which can build capacity at pharmacy level while helping to ensure a continuum of care for clients.

Similarly, some reports in the literature concluded that the wide presence of pharmacies on the ground represents an untapped resource, while emphasizing that the existing infrastructure is proof of sustainability. There have been several calls to harness the opportunity.


professionals, and therefore mobilizing them to meet public health goals will not suit their motivations. Clearly, incentives would have to be introduced to promote public behaviour of the private sector, but the public sector does not demonstrate optimal behaviour either.

Interestingly, one informant suggested that stakeholder scepticism regarding private pharmacies can be a challenge in itself, as it denies the possibility of overlap between profit-seeking, quality of care and socially beneficial outcomes. Another noted that getting stakeholders to buy into programmes involving the lower-range private sector has frequently been amongst the biggest challenges in other countries. Resistance can often be driven by the upper echelons of the health system, such as medical doctors or qualified pharmacists who deem it inappropriate to work with drug sellers wrongly selling prescription-only drugs.

Many other stakeholders stressed that the main challenge does not lie with the pharmacies per se, but in the weak environment of regulation and training institutions. Two informants shared the view that low government regulating capacity will remain a challenge for a long time to come, and therefore other mechanisms to effect pharmacy staff behaviour change must be examined. As one informant put it - "We’ll have to look at changing behaviour with incentives rather than enforcement."

A smaller number of Somaliland-based informants shared the view that a major challenge is the sheer number of pharmacies; it was commonly expressed that there are too many in operation. Some explained that this equates with a challenge to the quality of services they provide, as in the words of one informant, “[Pharmacy staff] abandon the rational use of medicine and respond immediately to the demand of the client in light of the competition.”

Informants who have been involved in supporting public facilities described substantial challenges relating to human resources in their experience. They suspected that pharmacies would face the same issues of very low capacity of qualified nurses and other certified health staff, let alone the further issue of completely unqualified staff.

One informant felt that the current pharmacy outlet ‘sector’ is a purely home-grown, locally developed system of procuring and distributing drugs. As it is out of the hands of any officials, government or otherwise, it will be a substantial challenge to gain leverage within such a system developed by a network of individuals.

6.2.6 Awareness of a replicable model for Somaliland

About half of stakeholders interviewed were unaware of a model to consider in the case of Somaliland private pharmacies.

Amongst the other half, most described a model which would introduce training, certification and regulation. It was suggested that providers be made to pay for mandatory certification, or that registration with the Somaliland Pharmaceutical Association be linked to certification prerequisites.

Four stakeholders named the social franchise model for Somaliland, which would involve gathering selected pharmacies into a network, training them and then incentivizing them through various means to maintain quality standards. One informant felt that this might even cause quality improvements in pharmacies outside the network, considering the environment of tight competition in Somaliland.

An informant who has worked on drug shop interventions in other countries advised “You need to really be aware of what the likely impact of a certain desirable change would be on the profit and sales. If you are going to have a negative impact, how are you going to then give them another incentive to balance that? I am not
sure anyone has quite worked out how to do that. But you must be aware of it."

6.2.7 Ability of NGOs/UN to carry out public health interventions with pharmacies

While some informants felt there is room to explore a public-private partnership option, there was confusion as to what this might look like when the normal oversight functions of government are seriously challenged or non-existent. NGOs and the UN can offer training and guidance, but it was repeatedly said that only the MoHL can serve as the regulatory body. One person felt it was completely useless to even train pharmacy staff in the absence of clear policy, rules and regulation for their operations.

It was the Ministry’s point of view that a competitive, self-regulating private sector is needed, as regulatory authority will remain a challenge for some time to come. Furthermore, public private partnership initiation has been previously proposed in national health plans116.

Another informant pointed out that there is an international shift towards programmes involving pharmacies and drug shops in Africa and Asia, and that these programmes are usually run by NGOs. There is a lot that can be done but support must be won early on from the MoHL and other key stakeholders, to avoid them sabotaging the process during later stages. It was advised to begin with strong evidence that shows that people are using the outlets to manage their health, as well as an outline of some behaviours that need changing. This should be combined with examples of what other countries have done in recent years to improve pharmacy performance.

Lastly, one informant was involved in a WHO-led programme that trained about 30 pharmacies on TB recognition and referral. In that experience, pharmacies were very receptive to training as they said they often feel overwhelmed by chronically ill patients who do not respond to treatments such as antibiotics that they offer them. The informant concluded that opportunities to work with the sector have not been sufficiently tapped. “Pharmacies are the predominant means of accessing health care, and if you want to improve public health then I think it’s worth investing and intervening in that predominant behaviour, to affect it for the best.”

6.2.8 Stakeholder interventions thus far

Actual interventions to improve the pharmaceutical sector have been very few. However, the MoHL has demonstrated its keen interest by independently commissioning the 2008 Hargeisa pharmacy survey, the results of which can be found in Annex 2. This recent action shows that the Ministry is serious about the need to gear up interventions with private pharmacies.

With regard to international stakeholders, WHO has taken the lead in developing the Somalia Standard Treatment Guidelines and Training Manual on Rational Management and Use of Medicines at the Primary Health Care Level, with training now underway in public health facilities. In addition, WHO previously trained private pharmacy staff in detection and appropriate referral for TB, and ensured quality control in the central medical stores117.

Regarding regulatory capacity-building at the national level, UNICEF seconded a consultant to assist the MoHL in drafting a national drug policy, the Proclamation of the National Pharmacy Regulatory Authority and other essential documents, as previously discussed. However this has not led to major advancements in and these documents have remained reference materials since 2001.

In addition, an informant made reference to a 1990s UNICEF-supported programme that encouraged


The dominant recommendation in the literature has been for regulatory capacity-building and technical support to national health authorities. Other recommendations have focused on making training available to private pharmacy owners and staff on essential drug concepts, rational use of drugs and proper storage practices. The distribution of job aids, posters and self-reference materials has also been suggested.

PSI/Somaliland works with pharmacies retailing their range of socially marketed products, such as water tabs (Biyo Sifeeye) and bednets (Badbaado). This programme has so far been oriented towards pharmacies as sales and distribution points, and has not ventured into improving drug quality or practices.

Somaliland also has a national Pharmaceutical Association with a constitution and chairperson, but it has little *barter for membership or capacity to professionalize the sector as yet.

No other interventions were identified which have taken place to date to improve the pharmaceutical sector's performance in Somaliland. Any failure to include programmes or trainings has not been intentional.

6.2.9 Summary of recommendations from the literature

During the past decade many different reports, assessments and surveys have recommended various ways of improving the pharmaceutical sector in Somaliland. This offers yet another insight into stakeholders' sense of the best course of action.

The dominant recommendation in the literature has been for regulatory capacity-building and technical support to national health authorities.

Other recommendations have focused on making training available to private pharmacy owners and staff on essential drug concepts, rational use of drugs and proper storage practices. The distribution of job aids, posters and self-reference materials has also been suggested.

References:

119 Wango K/ German Red Cross Regional Office. Midterm Evaluation of the tsunami rehabilitation program (Integrated Health Program) Somaliland. International Federation of Red Cross and Red Crescent Nairobi Kenya 2008
132 WHO Somalia. Assessment Study of the Quality
Some have reflected on how to use the pharmaceutical sector to the benefit of the health system at large. A number of reports have sought to develop pharmacies into health information points and to build up their ability to improve health seeking behaviour. This would involve strengthening referral practices and using pharmacies to spread important health messages to their clients, as they are often the first point of contact with modern health care\textsuperscript{133} \textsuperscript{134} \textsuperscript{135}.

The introduction of incentives to encourage quality improvements has also been recommended, as has the development of a pharmacy franchise\textsuperscript{136} \textsuperscript{137}.

There have been recommendations for an efficient public procurement system, to exercise the competitive advantage of pooling drug orders and of accessing quality standardized generic medicines tax free\textsuperscript{138}. This could have the effect of driving out the private procurement of essential medicines and leaving the private sector to procure specialty medicines, and is further discussed in Chapter 4. However, a drugs specialist working on the RDF in HGH has indicated there is no sustainable business model to do so at this time\textsuperscript{139}.

Lastly, a greater commitment to conduct quality control analysis of the drugs on the market has been advocated\textsuperscript{140}.

6.3 Stakeholder analysis conclusions

The following section presents a number of conclusions based on findings of the stakeholder interviews and desk review. These are discussed more fully in Chapter 6.

Conclusion 1: Scepticism of private pharmacies is strong amongst some stakeholders.

Conclusion 2: Pharmacies have a niche role in the health sector, according to other stakeholders.

Conclusion 3: The MoHL has demonstrated interest in intervening in the private pharmacy sector.

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Conclusions: a summary

The following section offers a collective view of the conclusions and future directions presented in the report.

**Conclusion 1: Pharmacies are extremely relevant in terms of access**

- The private sector offers a more extensive network than the public sector. With an estimated 779 outlets in Somaliland (compared to 68 MCHs, 150 health posts, four district hospitals and six regional hospitals, or a total of 228 public facilities and an additional 80 private clinics), pharmacies represent about three times the number of all other modern health care delivery points combined, and numbers are still increasing.

- Because of their location/s and opening hours, pharmacies are undoubtedly the most accessible modern health care delivery points in Somaliland. They are located in both nomadic and settled rural areas as well as in every corner of urban centres, and are usually available to clients for over sixty hours a week (compared to an estimated 10 to 25 hours for public facilities).

- Public facility records have shown that on average a Somalilander visits an MCH once in 11 years. By extrapolating from the pharmacy survey findings and applying the same population figures used to calculate annual MCH visits, this very roughly indicates that the average Somalilander visits a pharmacy 3.8 times a year. Whatever the accuracy of this predictive estimate might be, it is clear that private pharmacies are well utilized. Public sector records indicate use of modern services that are extremely low, but when this data is combined with utilization of private facilities it seems that consumption of modern health care is actually quite high, surpassing the international objective of 1.5 visits per person per year.

**Figure 6.1 - Speculative indication of annual visits to Somaliland pharmacies**

<table>
<thead>
<tr>
<th></th>
<th>Clients a day</th>
<th>Days a week</th>
<th>Weeks a year*</th>
<th>Total no. pharmacies**</th>
<th>Client visits a year</th>
<th>Yearly visits per capita***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>35</td>
<td>6</td>
<td>46</td>
<td>602</td>
<td>5,815,320</td>
<td>5</td>
</tr>
<tr>
<td>Rural</td>
<td>27</td>
<td>6</td>
<td>38</td>
<td>174</td>
<td>1,071,144</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6,886,464</td>
<td>3.8</td>
</tr>
</tbody>
</table>

*Assuming four weeks closing at Ramadan and two more throughout the year in urban areas; assuming additional closing weeks due to nomadic movements affecting rural pharmacies.

**Based on the Somaliland Pharmacy List (Annex 1).

*** Calculated with population estimates used in the National Primary Health Management Information Report, for consistency. Urban and rural distribution of 64% and 36% respectively, used according to MoHL/UNICEF/WHO CHD 2009 figures.

Using the same calculations we estimated that there are major inequities in consumption between urban (five visits a year per capita) and rural areas (1.6 visits a year per capita). While rural clients evidently face higher barriers in accessing pharmacies, consumption in these areas still compares favourably with international standards.

- On the other hand, there were reported problems with purchasing power. Urban pharmacy owners ranked client inability to pay as a greater business challenge than competition with other pharmacies. This might indicate that a proportion of the population cannot access private pharmacies due to cost considerations; however, given the cost-sharing mechanisms, this would similarly apply to access to public sector services.

- Most pharmacies offered a combination of discounts and credit to manage clients’ inability to pay. This might raise questions as to what the public sector facilities offer when cost-sharing fees cannot be met. Private access might potentially be more flexible in some cases, due to the credit financing option.

**Conclusion 2: Private pharmacies are small but competitive operations**

- Most pharmacies served low client loads with small financial turnover and were not part of a chain. Owners tended to work in the pharmacy with just one assistant staff or family member.

- Pharmacies seem to have tight cash flows, managing capital stock carefully to avoid waste (efficient but labour intensive). All stock is kept on the shelf and replenished regularly, according to what was sold. However, pharmacies may not be able to invest in slow moving stock, equipment or training, even if there is some demand (e.g. contraceptives). A public intervention should not expect major investment by pharmacy owners, as profit margins are too small.

- Major external investment in such small businesses would likely be disproportional to the operating model.

- Despite low turnover, pharmacies were specialized outlets which did not typically diversify beyond human and veterinary medicines and health-related services.

- Pharmacies almost always offered more health services than just drug sales, such as injections, stitches or house calls.
overwhelmingly reported to be an antibiotic. There was a poor match between the reported presentation of clients with diarrhoea to a pharmacy and the sale of anti-diarrhoeals. This might point to the prescription of antibiotics in such cases. There is a definite risk of poor prescription practices involving the over-prescription and incorrect dosing of antibiotics and this poses a threat to public health.

Conclusion 4: There are potential strengths in the composition of human resources

- One third of pharmacies visited reported having a female employee (41% of rural and 30% of urban areas), while 8% were actually owned by women.
- Nurses dominate the private pharmacy sector, which might assist in promoting access to certain basic health services using pharmacies.
- There was a fairly low turnover of staff (3.5 years on average). Limited and targeted training investment is therefore less likely to be wasted.

Conclusion 5: Pharmacies work in connection to the rest of the health sector

- Most urban and some rural pharmacies regularly received written prescriptions from other facilities and providers.
- Some urban pharmacies reported enforcing the need for prescription.
- The great majority of pharmacies referred clients to other facilities when they could not address their health needs.
- Thirty percent of owners/staff doubled in another health facility, usually serving in the public sector.

Conclusion 6: Pharmacies are generally not opposed to selling FP methods

- Over a third of pharmacies were already selling...
at least one method of FP (condoms, oral contraceptives or injectables).

- The most common reason to not sell FP was low demand.
- Only 16% of those not selling FP reported that they were opposed to doing so.

**Conclusion 7: The regulatory environment is extremely weak**

- A regulatory framework exists but it is not used or disseminated. Furthermore, it has not been revised for nearly a decade.
- A regulatory enforcement body does not currently exist. Regulation enforcement is likely to be a problem for some time to come.
- Eighteen percent of all pharmacies had no one, neither staff nor owner, with a health qualification, although sale of antibiotics and injections was nearly universal.
- Despite the weak regulatory environment, findings were better than expected: most owners were qualified health professionals; almost no expired medicines were found amongst those checked; advice and prescription were sought; and referrals were made, but the concept of prescription enforcement was relatively low, particularly in rural areas.

**Conclusion 8: Pharmacies were not the only point of care for urban clients**

- Many clients (4/10) had prescriptions.
- Some clients were purchasing repeat medications (2/10) which may have been previously prescribed.

**Conclusion 9: Urban clients used the private over the public sector, for both convenience and quality reasons**

- Responses regarding private pharmacy choice were equally split between convenience (distance or time) and quality (of service/drugs, reputation, and availability of drugs).

**Conclusion 10: There was a high degree of trust and satisfaction amongst urban pharmacy users**

- All clients said quality was good or acceptable.
- Most clients (84%) said prices were good or acceptable (non-users were not surveyed).
- Two-thirds felt that private pharmacies were very able to meet their family health needs.
- Nearly two-thirds felt that pharmacy staff were very knowledgeable.
- Three-quarters expressed the belief that advice from pharmacy staff very much matters in their family health decisions (i.e. they purchase more than a product, as they receive diagnosis and recommendations on treatment).
- Health seeking behaviour studies show high use of pharmacies across Somaliland, Puntland and Somalia.

**Conclusion 11: Somaliland pharmaceutical importers run a significant business, offering competitiveness and some degree of quality control**

- Companies reported selling to markets throughout the Horn of Africa. This fact likely contributes to faster turnover of stocks and a wider availability of medicine types and brands than might be expected for a small domestic population.
- There is often a public advantage in the procurement and distribution of bulk quality generic medicines that can drive the private sector to the provision of marginal and specialist services. In Somaliland, importers and wholesalers of drugs serve the Ethiopian and Somali market as well as the Somaliland market. Therefore, the private sector may exercise a competitive advantage over the public sector as they are able to aggregate greater demand and the private distribution channels are more...
opportunities for intervening to promote public welfare.

- There was wide distrust regarding skills, practices and quality of drugs at the pharmacy level. Training and regulation were the biggest preoccupations of stakeholders regarding intervention in the private pharmacy sector.
- Half of all stakeholders were unaware of models to intervene in the private pharmacy sector, suggesting low knowledge of successful initiatives involving drug sellers in other countries.
- International stakeholders were more sceptical than national stakeholders.

**Conclusion 15:** Pharmacies have a niche role in the health sector, according to other stakeholders

- Many other stakeholders expressed that pharmacies are the first line of contact and most accessible of health services. Amongst those who were more positive about pharmacies, it was frequently felt that referral, passing on promotional health messages and influencing health seeking behaviour, were potential key tasks for pharmacies.

**Conclusion 16:** The MoHL has demonstrated an interest in intervening in the private pharmacy sector

- In 2008, the MoHL independently began a process of evaluating pharmacy operations.
- Ministry informants valued the role of the private sector in extending health services to the people, given current public limitations.
8.1 Develop capacity of regulators

There is a need to gradually develop capacity of regulators, to both protect the public and support the private sector in functioning safely, for the benefit of the population of Somaliland.

1. Revise and update pharmacy (private sector) regulatory provisions.
2. Create user-friendly version.
3. Disseminate regulation along with a clear message of its advantages.
5. Conduct quality control testing of pharmaceuticals, to promote safety in the private sector beyond the scope of retailers.
6. Collect reliable data for benchmarking progress.
7. Invest in the Pharmaceutical Association, developing their programme of registering and training pharmacy owners and staff and keeping updated records.
8.2 Training of pharmaceutical staff

The quality of private pharmacy services can be improved; an urgent need is for training, both in production of those who run pharmacies and staff, as well as regular refresher training.

1. Include pharmacy training in both pre- and in-service training of health professionals. Pre-service training for a wide range of health professionals is one of the most important interventions, as it ensures a continuous supply of trained and motivated providers. Continuing in-service education is an effective strategy of updating skills and knowledge and should be part of re-certification of health professionals.

2. Training for early disease detection, referral and promotion of health can be a particular niche for pharmacies, as they are often the first point of health information contact for clients.

3. Strengthen the Pharmaceutical Association of Somaliland as a regulatory and professional body.

8.3 Promotion of accessibility and quality

There is room to intervene in the private sector to promote accessibility and higher quality service provision.

1. Use pharmacies to create a health information network, as the population’s first and most regular contact with modern health care.

2. Pharmacies are many and disaggregated and wholesalers are few. Use wholesalers as a point of intervention to distribute IEC, promotional and training materials such as the WHO clinical treatment guidelines.

3. Look into training and incentivization of private pharmacies to change/increase behaviour in critical public functions. For example: (a) increase availability and sales of ORS + zinc in treatment of diarrhoea; (b) look into promoting sales of effective vitamins (in a country with a high degree of malnutrition and low dietary diversity, consumption of multivitamins is a positive behaviour open to commercial abuse); and (c) publicly subsidise procurement and stocking of FP methods.

4. Train female staff on counselling of breast-feeding and use of FP.

5. Develop referral networks by identifying nearest clinics.

6. Use competition to drive quality improvements across the sector.

7. Look at social franchising of quality providers.
8.4 Address financial barriers to client access

1. Obtain donor commitment to break financial barriers for low-income clients, for example with voucher schemes or social health insurance schemes for preventative services.
2. Subsidize a select range of quality products.
3. Use social marketing and franchising approaches to brand products and promote quality service provision.
4. Build community knowledge to reduce self-medication, incomplete dosing or unnecessary medicine preferences (i.e. injections, syrups) by branding full-course medicines and raising awareness (especially regarding

8.5 Possibilities of regulation and support with other institutions and sectors

1. Look for possible interactions with other ministries and the Presidents Office in terms of establishing levels of possible regulation.
2. Explore potentials for linking with the veterinary sector (regulation, social marketing, training).
The survey team did not visit either Puntland or CSZ during the Somaliland Private Pharmacy Situation Analysis. Many stakeholders familiar with the other zones will nevertheless be able to recognize areas of commonality, as well as clear differences compared to findings presented in this report.

Part of the problem with generalizations is that key stakeholders do not have a good overview of the private sector, tending towards mistrust of private sector services. Real evidence will be needed to promote interest and action.

This section has attempted to review relevant literature on the pharmaceutical sector in Puntland and CSZ, in order to assist readers to make better-informed judgments on transferability of the situation analysis presented in this report.

**Overview**

Health seeking behaviour studies have shown the importance of pharmacies being located in a variety of locations, amongst diverse cross-sections of Somalia - although the phenomenon is perhaps less well-documented than in Somaliland.\(^{142}\)

Referring to all zones, a 2003 WHO funding proposal claimed that ‘self-medication through private drug sellers is a common way of healthcare in Somalia today’, while a 2001 Somalia pharmaceutical situation analysis concluded that pharmaceuticals were big business in all parts of Somalia\(^ {143} \)\(^ {144} \). However, as of 2008 no pre-service pharmacist training was on offer in any zone\(^ {145} \).

In 1998, WHO Somalia commissioned a three-zone survey of private facilities to assess quality aspects of reproductive health services in the sector. This included interviews with 80 pharmacies across all zones. The report concluded by stating that there were no major differences in terms of human resources, that pharmacy staff all lacked basic training in the field of drugs and almost no actual pharmacists were found anywhere. It also found that pharmacies were present in high numbers, doing ‘booming businesses’, and were carrying out ‘the lion’s share’ of all curative services in all zones. This particular study therefore pointed to more similarities than differences in zonal pharmacy operations\(^ {146} \).

A recent mapping exercise of health facilities in one district of each zone found that pharmacies outnumbered public facilities in all three (Gebiley, Garowe-Burtinle...
and Merca), with an average of 3,108 inhabitants per pharmacy compared to an average of 11,667 per public facility. This was said to point to the prolific nature of the private sector in all areas sampled\textsuperscript{147}.

**Puntland**

In 2001, another WHO Somalia commissioned study assessed the pharmaceutical sector through various methods, including interviews with pharmacy owners. The survey drew considerable parallels between the pharmacy situation in Somaliland and Puntland. Both zones were said to have taken the first steps towards regulation in the form of creating relevant policy and strategy documents. However both zonal administrations were similarly reported to lack the capacity to actively enforce the frameworks they had developed due to limited financial resources and technical assistance.\textsuperscript{148}

The same study counted private pharmacies, which resulted in a higher figure in Puntland (667 pharmacies compared to 484 estimated in Somaliland). Gaacyo, Garowe and Bosasso alone were attributed with having nearly 600 pharmacies. Some smaller urban centres and rural towns such as Jeriban, Eyl, Dangoroyo and Bander Baila were also said to have outlets. The 2001 survey roughly agrees with trends seen in this situation analysis and might indicate that Puntland pharmacies are operating in a similarly competitive market.

A 1998 UNICEF MICS survey in Puntland pointed to the dominance of pharmacies as the first line of care for a sick child. Of those who sought care, three-quarters of caregivers took the child to the private sector and two-thirds specifically went to a private pharmacy\textsuperscript{149}. Private pharmacy use was also particularly high when seeking treatment for malaria. Of the more than 1,000 survey respondents, 51\% said they had visited a pharmacy at least once in the previous six months, indicating frequent and regular access compared to any other health facility type. However, focus group discussions also revealed quality concerns amongst the public\textsuperscript{150}.

The high use of pharmacies found by the survey would testify to similar popularity of these services amongst Puntland communities. Evidence of pharmacies distributed outside major urban centres suggests a distribution like that seen in Somaliland\textsuperscript{151}. A study which visited private and public health facilities in Gebiley (Somaliland) and Garowe-Burtinle (Puntland) drew parallels between the population distributions and locations of private health service providers\textsuperscript{152}.

In summary, overall these findings mimic what the situation analysis has found in Somaliland, including (a) no regulation enforcement despite regulatory provisions, (b) low use and coverage of public services and a preference for private services, particularly pharmacy services, and (c) high numbers of outlet locations, including rural areas, serving a low-density population.

**Central South Zone**

One IRIN report from 2000 stated that “the [private pharmacy] problem is the same all over Somalia, but especially so in Mogadishu. IRIN counted 392 pharmacies on the main roads of Mogadishu alone.”\textsuperscript{153}

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\textsuperscript{147} Noor AM, Rage AR, Moonen B, and Snow RW. *Health service providers in Somalia: Their readiness to provide malaria case-management*. Malaria Journal 2009, 8:100. May 2009


\textsuperscript{152} Noor AM, Rage AR, Moonen B, and Snow RW. *Health service providers in Somalia: Their readiness to provide malaria case-management*. Malaria Journal 2009, 8:100. May 2009

\textsuperscript{153} IRIN. *Somalia: A health system in crisis*. UN Integrated Regional Information Network [allAfrica.com]. 20 December 2000
Mogadishu pharmacies were further described by the IRIN report as improperly storing drugs and having expired drugs for sale. Another report mentioned the repackaging of expired drugs of Asian origins in European wrappings for sale in Mogadishu’s Bakaaraha market. This was not the general observation of the Somaliland survey team.

In 2001, a WHO Somalia-commissioned study assessed the pharmaceutical sector, including interviews with pharmacy owners. Due to security restrictions the survey only covered Baidoa in CSZ, while multiple locations were visited in the other two zones. The author described that drugs were often being sold at ‘table pharmacies’ or peddled in small quantities on the street in Baidoa, unlike the other two zones. This echoes the reference made to the selling of drugs in the Mogadishu market environment. Nevertheless, anecdotal reports from locally-based service providers estimated that over 200 private pharmacies were operational in Baidoa in 2008, so open-air drug peddling is certainly not the only way drugs are being sold.

Stakeholders more familiar with CSZ shared the view that pharmacies offer one of the only areas of economic activity outside of the traditional food and subsistence commodities markets, and are a major source of employment. They felt that any intervention perceived to be interfering with pharmacy activities would be extraordinarily challenging due to the lack of alternative opportunities for productive investment.

The literature review did not identify estimated numbers of pharmacies in rural CSZ, as has been done for Somaliland and indicated in Puntland. A 2007 FSAU report noted that health services in the CSZ rural areas


160 Personal communication, Dr Annie Sparrow, Medical Coordinator CRS.
Conclusion

This report cannot draw substantive conclusions about the private pharmacy sector in Puntland and Central South Zone.

However, recommendations pertaining to establishing and disseminating a regulatory framework and code of conduct, as well as including important pharmaceutical elements in nurses’ training, apply to all zones. Opportunities for intervention to promote the public good are all likely to hold across the board, especially in Puntland where similarities in public and private sectors seem most consistent.
The generation of a list of all pharmacies in Somaliland was necessary as part of the sampling frame for the survey but was also an important output in its own right.

**Methodology**

The list of pharmacy numbers and locations in Somaliland was compiled through two principle means.

First, the Ministry of the Interior assisted in providing contact details for as many district-level municipal offices that it had on record. While municipalities have no role in terms of regulation, these bodies license pharmacies for tax registration as they do all businesses. Municipal offices were therefore contacted to gather the licensing information regarding the number of pharmacies and location of each, and this information formed the basis of the compiled list.

Many of the municipal contact persons were aware that their districts contained unlicensed pharmacies, especially those in the more rural municipalities. If they could share the location of the known unlicensed pharmacy, the information was included since the survey was interested in the total number of pharmacies in Somaliland. However, unlicensed pharmacies are most likely under-represented in the final list.

A total of 6 district municipalities were not reached despite multiple efforts. These included Lassanod (Sool), Bulaxaar (Sahil), Daarasalaam (Maroodi Jeeh), Xasan Gelle (Togdheer), and Lughaye and Zeylac (Awdal). Estimates have been made in these cases through comparison to similar districts in terms of a) population size and b) the district letter grade denoted by the Regions and District Self-Administration Law number 23/2007.

Then, the list was cross-referenced with PSI Somaliland’s records to fill any gaps. PSI has relationships with pharmacies as retailers for PSI social marketing products, and a few of these locations were added when missing from the municipal data or when the district had not been reached.

Pharmacy numbers in Hargeisa were provided by the findings of the February 2008 MoH survey (see annex 2) as the most accurate count available, including both licensed and unlicensed outlets.
<table>
<thead>
<tr>
<th>Region</th>
<th>Known</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awdal</td>
<td>165</td>
<td>779</td>
</tr>
<tr>
<td>Baki</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Booda</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cali 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbadar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hargeisa</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jirjiy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khadi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laasqoray</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mirac</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Baki</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risalay</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Togdheer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Warsameagal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xabbashawaal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yagoori</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zalasow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zobair</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**According to district municipal offices and Population Services International - Somaliland**
The Somaliland Ministry of Health and Labour was concerned at the high number of pharmacies in Hargeisa and therefore carried out an evaluation with the intention of selecting some to close down. This process of evaluation produced new data about Hargeisa pharmacies as presented in the following analysis.

**Methodology:**
In February 2008, the Ministry sent out foot teams to identify and describe every pharmacy in the city of Hargeisa. Wherever possible, pharmacy staff or owners were interviewed to fill out a short survey questionnaire. If the pharmacy was closed, only the pharmacy location and name was recorded.

There was a high proportion of uncompleted survey questions which has been recorded as ‘no response’ in the data below. This was caused by pharmacies being closed (4 percent), but it also appears that some foot teams did not feel they had to complete all the questions if an evaluation could be more quickly reached.

**Overall description:**
In total, 261 pharmacies were identified by these foot teams in the city of roughly 630,000 inhabitants. This represents one-third of all the pharmacies in Somaliland according to the estimates presented elsewhere in this report.

Two-thirds of all the Hargeisa pharmacies were located in 26 June and Gaacan Libaax sub-districts alone, which overlaps with the locations of the majority of pharmaceutical wholesalers and importer headquarters.

Most of the pharmacies were brick structures (85 percent), had waste removal and a latrine. Just half had a water supply. The survey did not record electricity supply, but the great majority of Hargeisa pharmacies have connections to the city grid.
The majority of all pharmacies (78%) had some kind of separate injection room to ensure privacy, while consultation rooms were less frequent (39%), suggesting more visual than auditory privacy in the pharmacies. One in seven pharmacies also offered lab services.

The survey team took note of the approximate distance to the nearest next pharmacy. This ranged from one meter to one kilometer, but the median distance was just 50 meters. Pharmacies in Hargeisa clearly operate in a tightly competitive – if not saturated – market.

Permits and licenses:
The intended licensing procedure is for pharmacies to first request a MoHL permit, which should entail quality regulation checks and measures. Once this is granted, a municipal license can be acquired which serves to register for business tax.

As seen previously in Figure 2, one in seven pharmacies offered lab services. The Republic of Somaliland’s Guidelines for Private Health Practices specifies that laboratories are not to be attached to pharmacies. However, most pharmacies with laboratories had obtained the MoHL permit (59.5%), suggesting either that these regulatory provisions are not being considered when extending MoHL permits or that pharmacies simply open laboratories after attaining the permit.

Human resources:
The questionnaire inquired into the type of health professionals working in the pharmacy, but did not distinguish whose qualification was being noted (i.e. staff, owner). It also did not collect information on a second health professional who might work in the pharmacy. Therefore, responses might indicate the
highest qualification in the pharmacy, the qualification of the respondent or of the owner\textsuperscript{167}.

The findings are indicated in the figure below.

*Figure Annex 4 - Health professionals in Hargeisa pharmacies, including those with supporting documents*

<table>
<thead>
<tr>
<th>Type of health professional</th>
<th>Pharmacies having health professional</th>
<th>Pharmacies having health professional with supporting documents*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse (Qual./ Aux./ Midw.)</td>
<td>54.0%</td>
<td>41.4%</td>
</tr>
<tr>
<td>Medical doctor</td>
<td>16.9%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Pharmacist/Pharmacologist</td>
<td>2.3%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Dentist/dental technician</td>
<td>1.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Lab technician</td>
<td>1.5%</td>
<td>1.5%</td>
</tr>
<tr>
<td>Any</td>
<td>76.2%</td>
<td>54.0%</td>
</tr>
<tr>
<td>None</td>
<td>16.5%</td>
<td>34.5% **</td>
</tr>
<tr>
<td>No response</td>
<td>7.3%</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

N=261

\textsuperscript{*}Respondents named an appropriate professional institution and graduation date, and/or said they would be able to produce a certificate.

\textsuperscript{**}Short training certificates such as for first aid courses, were named by 11.5% of respondents but did not count as supporting documentation of a health professional.

There was approximately a 20% percent drop between those who reported to have qualifications and those whose qualifications could be supported by certificate or details on the institution and graduation date. About one-third of those who claimed to be medical doctors were not able to substantiate it, representing a substantial gap.

The pharmacy survey presented in this report (Chapter 2) also observed that reported qualifications were not always probable, given the supporting information (total years studied). Other surveys have similarly reported this challenge when collecting information on health qualifications in the private sector and an assessment of private facilities including pharmacies stated that many claims of staff qualifications (even nursing qualifications) were felt to be suspect\textsuperscript{168} 169.

\textsuperscript{167} In the experience of the pharmacy survey (chapter 2), this was commonly found to be one and the same: the respondent was commonly the owner and owners had higher qualification levels than staff.


34. Noor AM, Rage AR, Moonen B, and Snow RW. *Health service providers in Somalia: Their readiness to provide malaria case-management*. Malaria Journal 2009, 8:100. May 2009

35. Wango K/ German Red Cross Regional Office. *Midterm Evaluation of the tsunami rehabilitation program (Integrated Health Program) Somaliland*. International Federation of Red Cross and Red Crescent Nairobi Kenya 2008


### KEY INFORMANTS LIST FOR STAKEHOLDER AND WHOLESALER SURVEYS

<table>
<thead>
<tr>
<th>Agency/Body</th>
<th>Interviewee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic Relief Services</td>
<td>Dr. Annie Sparrow</td>
</tr>
<tr>
<td>COOPI</td>
<td>Ms. Miresi Busana, Dr. Anne Maria Silvergaard</td>
</tr>
<tr>
<td>EC</td>
<td>Ms. Edda Costarelli</td>
</tr>
<tr>
<td>Hargeisa Group Hospital</td>
<td>Dr. Yassin</td>
</tr>
<tr>
<td>Italian Cooperation</td>
<td>Mr. Renato Correggia</td>
</tr>
<tr>
<td>Kenya Medical Research Institute</td>
<td>Dr. Catherine Goodman</td>
</tr>
<tr>
<td>MoHL</td>
<td>Mr. Khadar, Dr. Ali Sheikh</td>
</tr>
<tr>
<td>Save the Children UK</td>
<td>Dr. Nadeem Jan</td>
</tr>
<tr>
<td>UNICEF Somalia</td>
<td>Mr. Austen Davis</td>
</tr>
<tr>
<td>UNOPS Somali Support Secretariat</td>
<td>Dr. Kamran Mashhadi</td>
</tr>
<tr>
<td>Somaliland Medical Association</td>
<td>Dr. Ismail</td>
</tr>
<tr>
<td>Somaliland Pharmaceutical Association</td>
<td>Mr. Mohamed H. Dahir</td>
</tr>
<tr>
<td>SRCS</td>
<td>Ms. Kaltuun Hussein Dahir</td>
</tr>
<tr>
<td>WHO Somalia</td>
<td>Dr. Adenrele Koleade, Dr. Himayun Rizwan, Dr. Marthe Everard</td>
</tr>
<tr>
<td>Wholesalers - Importers</td>
<td>Libaan &amp; Imam Medical Wholesalers, Mubarak Medical Wholesalers,</td>
</tr>
<tr>
<td></td>
<td>Shaafici Pharmaceutical Trading Company, Burhan Pharmaceutical Trading Company</td>
</tr>
</tbody>
</table>
Table A. Awdal/Maroodi-Jeeh/Sahil/Togdheer

<table>
<thead>
<tr>
<th>Region</th>
<th>Urban locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awdal</td>
<td>Borama, Boon, Baki, Lughaya, Zeylac</td>
</tr>
<tr>
<td>Maroodi-Jeeh</td>
<td>Hargeisa, Gabley, Arbsiyo, Tog Wajaale</td>
</tr>
<tr>
<td>Sahil</td>
<td>Berbera, Sheikh</td>
</tr>
<tr>
<td>Togdheer</td>
<td>Burao, Odweyne, Buhodle</td>
</tr>
</tbody>
</table>

Table A has been taken from the 2007 Somaliland Ministry of Planning list of districts containing one or more urban *xaafad* (smallest sub-district unit) in Awdal, Maroodi-Jeeh, Sahil and Togdheer.

Table B. Sanaag/Sool

<table>
<thead>
<tr>
<th>Region</th>
<th>Urban locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sanaag</td>
<td>Erigavo, Badhan, Ceel Afwein, Laasqoray</td>
</tr>
<tr>
<td>Sool</td>
<td>Lassanod, Caynabo, Taleh, Xudun</td>
</tr>
</tbody>
</table>

Table B shows the pharmacy survey team’s proposed urban or potentially locations in Sanaag and Sool. Sanaag and Sool were not a part of the 2007 Ministry of Planning profile, therefore a variety of programme planning documents were examined from UNDP, UNICEF and other agencies to define urban locations in the two regions.
<table>
<thead>
<tr>
<th>Region</th>
<th>Urban</th>
<th>No.</th>
<th>Rural</th>
<th>No.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Awdal</td>
<td>Boon</td>
<td>1</td>
<td>Dila</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Borama</td>
<td>5</td>
<td>Jirjir</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Magalo Cad</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Magalo Qaloc</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Qolujeed</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tulli</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Maroodi Jeeh</td>
<td>Arabsiyo</td>
<td>1</td>
<td>Abaarso</td>
<td>closed</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Gebiley</td>
<td>3</td>
<td>Dacar-buduq</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hargeisa</td>
<td>21</td>
<td>Dhimbiryuale</td>
<td>closed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ijaara</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Kalabaydh</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Qoolcaday</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Salaxley</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Taasya</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Toon</td>
<td>closed</td>
<td></td>
</tr>
<tr>
<td>Sahil</td>
<td>Berbera</td>
<td>1</td>
<td>Huddisa</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Sheikh</td>
<td>1</td>
<td>Laaso Dacawo</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sheikh Abdal</td>
<td>1</td>
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</tr>
<tr>
<td>Todgheer</td>
<td>Burco</td>
<td>11</td>
<td>Beer</td>
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<td>18</td>
</tr>
<tr>
<td></td>
<td>Odweyne</td>
<td>2</td>
<td>El Hume</td>
<td>closed</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Ooryale</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Qunbahar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Shansha Cade</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Warcimraan</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yirowe</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sanaag</td>
<td>El Afwein</td>
<td>1</td>
<td>Fadhibaab</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Sool</td>
<td>Lassanod</td>
<td>2</td>
<td>Adhicadays</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Oog</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Wadaamagoy</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Yagoori</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>47</td>
<td>27</td>
<td></td>
<td>74</td>
</tr>
</tbody>
</table>
**SECTION I: OUTLET OBSERVATIONS**

<table>
<thead>
<tr>
<th>TAARIKH:</th>
<th>Ogolaasho ma haystaa:</th>
<th>Haa</th>
<th>Maya</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date:</td>
<td>Permission Granted:</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>GPS pressed:</td>
<td>Survey number:</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**REFUSAL:**
If the provider refused, why? (Circle one answer and end interview. If provider is busy with heavy client load, ask for a time he would prefer to be interviewed.)

Haddii u adeeg-bixiyuhu diido, muxuu u diiday? (calaamadi jawaab keliya waraysigana jooji, haddiise uu mashquul ku yahay macmiil badan, waydii wakhtiga u door bidayo in la waraysto.

1. Client load – Macmiil badan oo joogta
2. Thinks it’s an inspection / nervous about license – wuxuu moodayaa baadhitaan/wuxuu ka werwersan yahay qabaar rukhsadda
3. Not interested – ma xiiseynayo
4. Refuses to give reason – wuu diiday inuu sabab sheego
5. Other (Describe) – sababo kale (faahfaahi)

1.1 Magaca Farmasiga: Name of Outlet:

1.2 Gobolka: Region:

<table>
<thead>
<tr>
<th>Adwal</th>
<th>Mahoodi-J</th>
<th>Togdheer</th>
<th>Saaxil</th>
<th>Sool</th>
<th>Sanaag</th>
</tr>
</thead>
</table>

1.3 Magaalada: Town: Degmada: District:

1.4 Miiska mafarshku halkuu yaallaa? Where is the counter located?

<table>
<thead>
<tr>
<th>Window Daaqad</th>
<th>Front Xagga hor</th>
<th>Middle Dhexda</th>
<th>Back Xagga dambe</th>
</tr>
</thead>
</table>

1.5 Nooca meesha u Farmasigu ku yaal. Location type.

<table>
<thead>
<tr>
<th>Urban Magaalo</th>
<th>Rural Town</th>
<th>Meel miyi ah</th>
</tr>
</thead>
</table>

1.6 Farmasigu ma wuxuu ku yaallaa waddo weyn? Is the outlet located on a main road?

<table>
<thead>
<tr>
<th>Y - Haa</th>
<th>N - Maya</th>
</tr>
</thead>
</table>

1.7 Ma ku yaallaan farriimo xayaysiis ah ama hal-ku-dhegyo muujinaya macluumaad Caafimaad? Maxay u taagan yihiiin ama xayaysinayaan?

Are there promotional health/IEC messages present? For what?

<table>
<thead>
<tr>
<th>N</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maya</td>
<td>Haa</td>
</tr>
</tbody>
</table>
1.8 Ma ku yaallaan xayaysiis dawooyin ama alaab kale? Maxay u taagan yihiiin ama xayaysiinayaan? Are there promotional drug advertisements or materials present? For what?

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Y</th>
</tr>
</thead>
</table>

1.9 M jiraan adeeyo caafimaad oo kale oo Xayaysiin loogu sameeyay? Waa maxay?
Are there other health services being advertised? What?

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Y</th>
</tr>
</thead>
</table>

SECTION II: ACCESS

2.1 Imisa maalmood ayay meheraddaadu furan yahay todobaadkiiba? How many days a week are you open?

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
</table>

2.2 Imisa saacaddood gelinka hore/gelinka dambe? How many hours in the morning/afternoon?

<table>
<thead>
<tr>
<th></th>
<th>Morn – Gelinka hore</th>
<th>Aft – Gelinka dambe</th>
</tr>
</thead>
</table>

2.3 Ilaa imisa macmiil ayaad u adeegtaan maalintiiba?
About how many clients do you serve per day?

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
</table>

2.4 Intee in leeg ayay badanaa idiin yimaadaan macmiisha reer miyiga ihi si ay halkan dawooyin uga iibsadaan? How often do clients from rural areas come in to buy drugs here?

<table>
<thead>
<tr>
<th></th>
<th>Never/seldom</th>
<th>Sometimes</th>
<th>Often.</th>
<th>Usually/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marnaba/in yar</td>
<td>Marmar</td>
<td>Badanaa</td>
<td>Had iyo jeer.</td>
</tr>
</tbody>
</table>

2.5 Intee in leeg ayay badanaa idiin yimaadaan macmiisha reer guuraaga ihi si ay halkan dawooyin uga iibsadaan? How often do nomadic clients come in to buy drugs here?

<table>
<thead>
<tr>
<th></th>
<th>Never/seldom</th>
<th>Sometimes</th>
<th>Often.</th>
<th>Usually/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Marnaba/in yar</td>
<td>Marmar</td>
<td>Badanaa</td>
<td>Had iyo jeer.</td>
</tr>
</tbody>
</table>

2.6 Waa kee cudurka ugu badan ee ay macmiishiinu ka cawdaan marka ay idiin yimaadaan? Carruur/Qaan-gaadh?
What is the most common ailment clients complain of when they come in? for children/adults?

<table>
<thead>
<tr>
<th></th>
<th>Children: Respiratory</th>
<th>Gastrointestinal</th>
<th>Eyes/ears/nose</th>
<th>Common cold</th>
<th>Pain</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Carruur: Feedha</td>
<td>Caloosha</td>
<td>Indhaha/dhegaha/sanka</td>
<td>Duri</td>
<td>Xanuun</td>
<td>Kuwa kale</td>
</tr>
<tr>
<td></td>
<td>Adult. Respiratory</td>
<td>Gastrointestinal</td>
<td>Eyes/ears/nose</td>
<td>Common cold</td>
<td>Pain</td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td>Qaan-gaadh. Feedha</td>
<td>Caloosha</td>
<td>Indhaha/dhegaha/sanka</td>
<td>Duri</td>
<td>Xanuun</td>
<td>Kuwa kale</td>
</tr>
</tbody>
</table>

2.7 Isku celcelis, imisa ayuu macmiilku kharash ahaan bixiyaa marka u yimaado?
On average, how much does a client spend when they come in?

Somaliland Shillings
2.8 Macmiishu intee in leeg ayay idiiinla yimaadaan waraaq dhakhtar u soo qoray? Haday sitaan yaa u soo qoray? How often do clients come with a written prescription? If so, from where?

<table>
<thead>
<tr>
<th>Never/seldom</th>
<th>Sometimes</th>
<th>Often.</th>
<th>Usually/Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marnaba/in yar</td>
<td>Marmar</td>
<td>Badanaa</td>
<td>Had iyo jeer.</td>
</tr>
</tbody>
</table>

| Priv. fac | Pub. fac | Other : |

2.9 Adiga aragtidaada, dawadee ayaa haddii la jebyo qiimeheeda, macmiishiina caafimaadkooda aad wax uga tari lahayd? In your opinion which drug, if made cheaper, would help your clients’ health the most?

SECTION III: OUTLET AS PART OF A HEALTH NETWORK

3.1 Kumaa la waraysanayaa? Who is being interviewed?

Staff-Shaqqaale, Owner Mulkiile

3.2 Mulkiiluhu miyuu farmasiyo kale leeyahay? Imisa farmasii?

Does the owner have other pharmacies? How many?

<table>
<thead>
<tr>
<th>N</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number:</td>
<td></td>
</tr>
</tbody>
</table>

3.3 Mulkiiluhu ma ninbaa mise waa haweenay? Is the owner male?

Male | Female

3.4 Mulkiiluhu miyuu leeyahay waxbarasho caafimaad? Haddii uu leeyahay waa maxay aqoontaasi? Imisa sanadood ayuu baranayey?

Does the owner have a qualification in health? If so, what? How many years?

| N | Y | # year | Lab Tech. | Aux.Nurse | Q.Nurse | MD | Pharm | Midw | Other |

3.5 Farmasigani rukhsad ma ka haystaa Dawladda hoose? Is this outlet licensed with the municipality?

Y | N

3.6 Imisa qof ayaa ka shaqeeya meheraddan markaad adiguna isku darto? How many people work in this outlet, including yourself?

3.7 Shaqaalaha dumar ma ku jiraan, waa imisa tiradoodu? How many are (or are any) women?
HADDII AANU MULKIILAHAYN: If respondent is not the owner:

3.8 Adigu aqoon caafimaad ma leedahay? Haddii aad leedahay, maxaad baratay? Imisa sanadood ayaad baranaysay?
Do you have a qualification in health? If yes, what? How many years?

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td># year</td>
<td>Lab Tec.</td>
<td>Aux.Nurse</td>
<td>Q.Nurse</td>
<td>MD</td>
</tr>
</tbody>
</table>

HADDII LABA QOF IN KA BADANI KA SHAQAYSO FARMASIGA: if more than 2 staff:

3.9 Ma jiraa qof kale oo meheraddan ka shaqeya oo leh aqoon caafimaad? (waa maxay shahaaddada u sarraysa ee u haysto)
Does anyone else working in this outlet have a qualification in health? (by highest qualification)

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td># year</td>
<td>Lab Tech.</td>
<td>Aux.Nurse</td>
<td>Q.Nurse</td>
<td>MD</td>
</tr>
</tbody>
</table>

3.10 Goormay ahay markii ugu dambaysay ee ad tababar la xidhiidha caafimaadka qaadatay?(Imisa sanno ama bilood ka hor)
When was the last time you were trained in a health-related topic? (in years past or months past)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Years: Sannado</td>
<td>Months: Bilo</td>
</tr>
</tbody>
</table>

3.11 Miyaad ka shaqaysaa meel kale oo ku lug leh adeegyada caafimaadka? Haddii ay jirto, waa noocma? Do you work in another health related facility? If so, what type?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td>Pub. fac</td>
<td>Priv. fac</td>
<td>Lab.</td>
<td>Other:</td>
</tr>
</tbody>
</table>

3.12 Ma jiraan shaqaale kale oo ka shaqeya adeegyada caafimaad ee kale?
Do other staff work in other health facilities?

<p>| | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td>Pub. fac</td>
<td>Priv. fac</td>
<td>Lab.</td>
<td>Other:</td>
</tr>
</tbody>
</table>

3.13 Imisa sanadood ayuu farmasigani shaqaynayay?
How many years has this pharmacy been in operation?

HADDII AANU MULKIILAHAYN: If respondent is not the owner

3.14 Imisa sanadood ayaad meheraddan ka shaqaynaysay?
How many years has the respondent worked in this outlet?

3.15 Meheraddani miyay ku xidhantahay xarun caafimaad oo mucayan ah?
Is this outlet connected to any particular health facility? What type?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
<td>Pub.</td>
<td>Priv. Gaar</td>
<td>Lab.</td>
</tr>
<tr>
<td>Haa</td>
<td>Maya</td>
<td>Dawlada</td>
<td>Shaybaadh</td>
<td>Kuwa kale;</td>
</tr>
</tbody>
</table>
3.16 Goormay ahayd markii ugu dambaysay eea aydin soo boqdeen cid ka socota Wasaaradda Caafimaadka, Ururka Farmasiyada ama cid kale oo kale oo u xilsaaran nidaaminta hawlaha caafimaadka?

When did you last receive a visit from the MoHL, the Pharm Assn or a regulatory body?

<table>
<thead>
<tr>
<th>Date: Taariikh:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MoH PAS Other:</td>
</tr>
<tr>
<td>Wasd. Caaf. Ururka Farmasiyada Meelo kale:</td>
</tr>
</tbody>
</table>

3.17 (Magaalada) Halkeed ka sooibsataan dawooyinka ad farmasigan ku iibisan? Where do you buy drugs you sell in this outlet? (town, ie, Hargeisa)

3.18 Meelaha ad dawooyinka ka soo iibsataan ma waxad ku tilmaami kartaa soo-dejiyayaal, mise gacan-dhexe, mise farmasiyo kale?

Are the locations you buy drugs best described as importers, middlemen or other pharmacies?

| Importer- Soo-dejiyeyaal | Middle – Gacan-dhexe | Pharm – Farmasi akle |

3.19 Imisa kilometer ayuu idin jiraa qiyaastii? How far is that in kilometers?

3.20 Ma jiraa hab dawooyinka la idiinku keenaa idikoo halkiina jooga?

Do you have a way to get the drugs delivered to the outlet?

| Y N |

3.21 Haddii aanay jirin, ma adiga ama shaqaalahaa aya safra oo soo iibiya dawooyinka?

If not, do you or other staff travel to buy them from that location?

| Y N |

3.22 Muddoo intee ah ayaad dawooyinka dib ugu soo iibsataa markay kaa dhammaadaan?

How frequently do you buy/restock drugs?

| /Week | /Month |

3.23 Imisa meelood ayaad ka iibsataan dawooyinka? From how many sources do you buy drugs?

3.24 Ma leedihii diiwaan ad ku qortaan dawooyinka idinka baxa iyo kuwa soo gala?

Do you keep an in/out registry for drugs?

| Y N |
3.25 Sidee ayaad badanaa u heshaa ama yaad ka heshaa aqoon ku saabsan dawooyinka ad iibisaan? How do you learn most often about the drugs that you sell?

- Self-study- Wax-is-baris
- Wholesalers- Jumladlaha
- Pharmaceutical leaflets- waraaqaha dawooyinka ku dhex jira
- Drug representatives- Wakiilada dwooyinka
- MoH – Wasaaradda Caafimaadka
- NGOs/UN – Hay’ado aan dawli ahayn/Qaramada midoobay
- Previous/other health experience – Waayo-aragnimo hore ama kale oo caafimaadka ku saabsan
- Colleagues/peers in health – Saaxiibbo ama dad aanu caafimaadka ka wada shaqayno
- Other: Kuwa kale:

3.26 Waa tee dawada ugu iibka badan ee ad iibisaan? What is most common drug that you sell?

3.27 Waa maxay adeegyada caafimaad ee aan ahayn ibibinta dawooyinka ee ad qabataan? What other health services do you provide, besides selling drugs?

<table>
<thead>
<tr>
<th>House call</th>
<th>Attend births</th>
<th>Urinalysis</th>
<th>Blood tests</th>
<th>Injections</th>
<th>Dressings</th>
<th>Other:</th>
</tr>
</thead>
</table>

3.28 Alaabo kale ma iibisaan oo aan ahayn dawooyinka dadka? What other goods do you sell, besides medicines for humans?

- Veterinary medicines – Dawada xoolaha
- Food stuffs  Cuntooyin
- Agricultural products – Wax soo saarka beeraha
- Toiletries – Alaabta loo isticmaaqa suuliyada
- Chemicals – kiimiko
- Household items – Alaabta guryaha lagu isticmaalo
- Other: - Alaabo kale: Nothing

3.29 Meheraddani ma leedahay…? Does this outlet have….?

<table>
<thead>
<tr>
<th>Biyo Water:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Laydh: Electricity:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Miisaanno: Scales for people</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>
Qalabka dhiig-karka lagu qiyaaso: Blood pressure monitor:
Y    N

Talaajad Refrigerator: operating?
Y    N

Maykaraskoob Microscope:
Y    N

Qalabka dhiigga cabbira Haemacue:
Y    N

3.30 (Sidee baad dawooyinka u kaydisaan?ka codso in uu ku tuso)
(How are the drugs kept? Ask to see and observe)

<table>
<thead>
<tr>
<th>Floor</th>
<th>separate room</th>
<th>Sun</th>
<th>Humid</th>
<th>Shelves</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dhul</td>
<td>Ool gaar ah</td>
<td>Meel qorax</td>
<td>Meel hawadu qoyan tahay</td>
<td>Kabadho</td>
<td>Meelo kale</td>
</tr>
</tbody>
</table>

3.31 Tirada qolalka gaarka ah ee aad leedahay waa imisa (tusaale qolka la-talinta dadka, istoodhka)? How many rooms do you have which are private (eg consultation room, storage)?

Scenarios- Client interactions

3.32 Marka macmiilku dalbado (Amoxicillin), maxaad samaysaa?

When a client requests (Amoxicillin), what do you do?

- Waraaq dhakhtar baan weydiiyaa - Asks for the client to have a prescription-
- Waxan u diraa rug caafimaad ama dhakhtar - Refers to health facility or doctor-
- Su’aalo badan ayaan ka weydiiyaa calamadaha xanuunkiisa/waxan isku dayaa inaan ogaado baahidiisa/cudurka haya - Asks more about symptoms/seeks to confirm the need/diagnose-
- Toos buu dawooyin uga ibiyyaa - Sells the medication directly –
- Wax kale ayaan sameeyaa: Other:

3.33 Marka macmiilku aanu wada ibsan karayn dawooyinka uu u baahanyahay oo dhan, maxaad yeeshaa? If a client cannot afford the full-course of the medicine that they need, what do you do?

- Farmasi kale ayaan u dirnaa Refer to another facility –
- Wax baan ka dhinnaa qiimaha Offer discount –
- Waanu amaahinnaa Offer credit –
- In yar baanu ka iibnaa Sell smaller dose –
- Waxba kama qabanno Do nothing –
- Wax kale ayaan samaynaa: Other:
3.34 Ma dhacday marna inaad macmiil u dirto Xarun caafimaad. Haddii ay jawaabtu tahay haa,
Do you ever refer clients to other health facilities? If yes, where?

<table>
<thead>
<tr>
<th>Priv. doc</th>
<th>Priv. clinic</th>
<th>Priv. lab</th>
<th>Health post</th>
<th>MCH</th>
<th>Other public</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td>Dhakhtar gaar ah</td>
<td>Xarun caafimaad gaar ah</td>
<td>Shaybaadh gaar ah</td>
<td>Goob caafimaad</td>
</tr>
</tbody>
</table>

3.35 Tee baa ah caqabadda ugu weyn ee ganacsigaaga ka hortimaadda: Macmiilka oo awoodi kari waaya inuu qimaha dawada bixiyo, mise tartanka ka dhexeeya farmasiyada. Which is more challenging to your business: clients’ inability to pay, or competition with other pharmacies?

Pay Comp Both
Hayn la’aanta Tartanka

SECTION IV: ESSENTIAL MEDICINES

4.1 Maanta x, y iyo z miyay kaydka kuu yaallaan?
Today to you these medicines in stock? If so, how much are you selling each at the smallest unit?

<table>
<thead>
<tr>
<th>Drug</th>
<th>Yes</th>
<th>No</th>
<th>Unit</th>
<th>Price</th>
<th>Origin</th>
<th>Expiry Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amoxicillin 250mg Capsule</td>
<td></td>
<td></td>
<td>Capsule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Omeprazole 20mg Capsule</td>
<td></td>
<td></td>
<td>Capsule</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Co-trimoxazole 400mg+80mg Tablet</td>
<td></td>
<td></td>
<td>Tablet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ibuprofen 200mg film coated Tablet</td>
<td></td>
<td></td>
<td>Tablet</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ceftriaxon 1g, powder for injection Vial</td>
<td></td>
<td></td>
<td>Vial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metronidazole 5mg/ml, 100ml, for injection Vial</td>
<td></td>
<td></td>
<td>Vial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cimetidine 200mg/2ml, for injection Amp</td>
<td></td>
<td></td>
<td>Amp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diclofenac sodium 75mg/3ml, for injection Amp</td>
<td></td>
<td></td>
<td>Amp</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium chloride 0.9%, 500ml laminate bag, IV not included Bottle</td>
<td></td>
<td></td>
<td>Bottle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ringer lactate 500ml btl with nipple, IV not included Bottle</td>
<td></td>
<td></td>
<td>Bottle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyvidone iodine 10% solution, 200ml Bottle</td>
<td></td>
<td></td>
<td>Bottle</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION V: FAMILY PLANNING SECTION

5.1 Dadku halkan ma idin weydiyaan wax ku saabsan kala-korinta carruurta?

Do people ask about family planning here?

| Y | N |

5.2 Ma haysaan dawooyin/qalab/ama adeeg ku saabsan kala korinta carruurta? Kuwee baad haysaan? Shirkadde baa samaysay? Waa imisa qiimohoodu?

Do you have any contraceptives in stock? Which methods? Brands? Cost? Service Delivery?

| Y | N |

<table>
<thead>
<tr>
<th>Methods</th>
<th>(Calaaamadda shirkadda) Brands</th>
<th>(Qiimaha) Price</th>
<th>(Imisa ayaa la iibiyeey maalintiiba) How many sold/day</th>
<th>(Imisa ayaa la iibiyeey bishiiba) How many sold/month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pills</td>
<td>Kiniin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inject</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Condoms</td>
<td>Kondhom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other:</td>
<td>Wax kale</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3 Haddii ad iibiso xageed ka soo iibsataa kiniinka iyo irbadaha? (ku dar faahfaahin hadday Jirto)

If sold, where do you buy pills and injectables? (Include any details in other)

<table>
<thead>
<tr>
<th>Pills Kiniin</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wholesaler-Jumladie</td>
<td>Hawker-Dilaal</td>
<td>Other: Kuwo kale:</td>
</tr>
<tr>
<td>2</td>
<td>Wholesaler</td>
<td>Hawker</td>
<td>Other:</td>
</tr>
<tr>
<td>3</td>
<td>Wholesaler</td>
<td>Hawker</td>
<td>Other:</td>
</tr>
<tr>
<td>4</td>
<td>Wholesaler</td>
<td>Hawker</td>
<td>Other:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inject-Irbado</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesaler</td>
<td>Hawker</td>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>
5.4 Haddii dawooyinka kala-korinta carruurta aana iibin waa maxay sababtu?
If FP is not sold, why not?

<table>
<thead>
<tr>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dalab ma laha: No demand –</td>
</tr>
<tr>
<td>Waan la helin: Not available –</td>
</tr>
<tr>
<td>Waan ka soo hor jeedaa kala-korinta carruurta ama ka hortagga uuraysiga: Opposed to FP –</td>
</tr>
<tr>
<td>Proximity to free source (MCH etc)</td>
</tr>
<tr>
<td>Fear of misuse/ perceived as dangerous</td>
</tr>
<tr>
<td>Ma yaaqaan: Don’t know –</td>
</tr>
</tbody>
</table>

5.5 Ma xarumo caafimaad oo kale ayaad u dirtaan macmiilka u baahan adeegyada kala-korinta caruurta? Waa halkee?
Do you refer to another health facility when clients need FP services? Where?

<table>
<thead>
<tr>
<th>Referral</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Haa</td>
<td>Maya</td>
</tr>
<tr>
<td>Where</td>
<td>private</td>
</tr>
<tr>
<td></td>
<td>public</td>
</tr>
<tr>
<td>Meesha</td>
<td>Gaar loo leeyahay</td>
</tr>
<tr>
<td>Meel dawladeed</td>
<td></td>
</tr>
</tbody>
</table>

5.6 Ma ku talin lahayd in la qaato? Would you recommend FP?

<table>
<thead>
<tr>
<th>Y</th>
<th>N</th>
</tr>
</thead>
</table>

PHOTOS      Y      N
Waraysiga Macmiisha

Taariikh (Date): ___________________________  Gender:  M  F  Lab  Dhedig

__________________________

Gobol (Region):

<table>
<thead>
<tr>
<th>Adwal</th>
<th>Mahoodi - J</th>
<th>Togdheer</th>
<th>Saaxil</th>
<th>Sool</th>
<th>Sanaag</th>
</tr>
</thead>
</table>

Magaalo (Town):

Farmasiga iyo lambarka serfeyga ee la siiyay:
(Pharmacy and corresponding survey number)

Waraysi ma ogolaaday? (Interview granted?)

| Y: | Haa | N: | Maya: |

1) Maanta ma dawooyin baad iibsanaysaa? (Are you buying medicine today?)

| Y | N |

2) Dawada ma adiga naftaada ayaa isticmaalayaa? (Is the medicine for yourself?)

| Y | N |

3) Hadday jawaabtu haa tahay, ma haysata waraaq dhakhtar kuu soo qoray?
(If buying medicine, do you have a prescription?)

| Y | N |

4) Hadday jawaabtu maya tahay, sidee baad u garan kartaa waxaad doonayso inaad ilbsato?
(If no, how do you know what you want to buy?)

| Hore ayuu u isticmaalay/dawooyin hore oo an ku ceshanayo (Used before/ repeat medication) |
| Saaxiib/ehel ayaa igulaula taliyay (Friend/Relative recommended/ word of mouth) |
| Talada farmasiska (Pharmacist’s advice) |
| Talada dhakhtarka/kalkaalisada (Doctor/Nurse advice) |
| Kuwo kale (Other): |

CLIENT EXIT SURVEY QUESTIONNAIRE
5) Maxaad farmasi gaar loo leeyahay u timid halkii aad xarun caafimaad dadweyne ka tegi lahayd?
(Why did you come to a private pharmacy instead of a public facility?)

| Nooca adeegga/tayada dawooyinka (Quality of service/drugs) – |
| Dawooyinka aan u baahanahay ayaa laga helaa (Drugs are available) – |
| Sumcad wanaag (Reputation) – |
| Wakhtiga (Time) – |
| Dhowaanshaha (Distance) – |
| Kuwo kale (Other): |

6) Maxaad farmasigan uga dooratay farmasiyada kale?
(Why did you choose this pharmacy over any other pharmacy?)

| Adeeg wanaag/Tayada dawooyinka (Quality of service/drugs) – |
| Dawooyinka an u baahanahay ayaa laga helaa (Drugs are available) – |
| Sumcad wanaag/Dadkaa ammaana (Reputation/Word of mouth) – |
| Wakhtiga (Time) – |
| Dhowaanshaha (Distance) – |
| Qiimaha (Price) – |
| Kuwo kale (Other) – |

7) Sideed u qiyaastaa culayska ad kala kulanto qiimaha dawooyinka iyo adeegyada farmasiga gaar loo leeyahay? (Fudud, la aqbali karo ama adag)
(How do you rate the difficulty of meeting the cost for drugs and services from a private pharmacy? (Easy, acceptable or difficult))

| Fudud (Easy) | La aqbali karo (Acceptable) | Adag (Difficult) |

8) Sideed u qiyaastaa nooca dawooyinka iyo adeegyada ad ka hesho farmasi gaar loo leeyahay
(How do you rate the quality of drugs and services you obtain from a private pharmacy? (Poor, acceptable or good))

| Liidata (Poor)- | la aqbali karo (Acceptable) | Wanaagsan (Good) |

9) Guud ahaan, ilaa xadkee ayaad dareemaysaa infarmasiga gaar loo leeyahay inuu awoodi karo buuxinta baahiyahaaga caafimaad (in yar, iska fiican ama aad u fiican)
(Overall, up to which extent do you feel that a private pharmacy is able to meet your health needs? (little, somewhat or very))

| In yar (Little) | Iska fiican (Somewhat) | Aad u fiican (Very) |

10) Ra’ygaa, ilaa xadkee bay aqoonta shaqaalaha farmasigu gaadhsiiyay tahay (Yar, iska yara fiican ama aad u fiican)
(In your opinion, how knowledgeable is the pharmacy staff about drugs and Services that they offer? (little, somewhat or very))

| In yar (Little) | Iska fiican (Somewhat) | Aad u fiican (Very) |
11) Ra'yiigaaga, ilaa xadkee bay talooyinka farmasiga lagaa siiyaa ay muhiim ugu yiihin gaadhista go'aanno caafimaad adiga iyo qoyskaaguba? (in yar, meel dhexaad ama aad)
(In your opinion, how important is the advice you receive in a pharmacy in making health decisions for you and your family? (little, somewhat or very))

<table>
<thead>
<tr>
<th>In yar (Little)</th>
<th>Iska fiican (Somewhat)</th>
<th>Aad u fiican (Very)</th>
</tr>
</thead>
</table>

12) Imisa jir ayaad tahay? (sanadah) (How old are you? (years))

13) Tacliinta ilaa heerkee ayaad ka gaadhay? (What level of schooling have you completed?)

<table>
<thead>
<tr>
<th>Tacliin ma lihi/Dugsiga hoose ma dhamaysan (None/less than primary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woxoogaa dugsiga hoose ah (Some primary)</td>
</tr>
<tr>
<td>Dugsiga hoose ayaan dhamaystay (Primary completed)</td>
</tr>
<tr>
<td>Woxooga dugsiga sare ah (Some secondary)</td>
</tr>
<tr>
<td>Dugsiga sare ayaan dhamaystay (Secondary completed)</td>
</tr>
<tr>
<td>Woxoogaa dugsiga sare ka dambaysa Jaamacad/koolej (Some post-secondary (uni/college))</td>
</tr>
<tr>
<td>Waxaan qaatay Digree Jaamacadeed (Post-secondary degree acquired)</td>
</tr>
<tr>
<td>Waxbarasho jaamacadeed oo dheeraad ah (Further graduate studies)</td>
</tr>
</tbody>
</table>
WHOLESALE INTERVIEW GUIDE

Name:          City:          Date:

1. From where do you import drugs? List all (country, company)

2. How do you decide what to buy?

3. Do you have other warehouse locations for wholesale? Where?

4. What percentage of the drugs you import do you sell to other countries? Which countries?

5. How much of your business do you do directly with retail pharmacies?

6. Do you have a delivery system to pharmacies?

7. Do you have a refrigerated area for those drugs that require it?

8. How often do you experience stock-outs?
1. What do you think is the current role of pharmacies in Somaliland in relation to the health sector?

2. To what extent do you think pharmacies contribute to the health of Somalilanders?

3. To what extent do you think pharmacies are accessed by rural and nomadic people?

4. What do you think are the biggest opportunities that the pharmacies offer?

5. What are the biggest challenges?

6. Are you aware of a model or part of a model you would like to see replicated in Somaliland?

7. To what extent can NGOs and UN agencies work with pharmacies to design public health interventions?