

The Sustainable Healthcare Enterprise Foundation (SHEF) Model for Franchised Drug Outlets in Kenya: Evaluation Results

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ACRONYMS

ADDO	accredited drug dispensing outlets
ARI	acute respiratory infection
CEDMAP	Centre for Drug Management and Policy
CFWshops™	Child and Family Wellness Shops
CHW	community health worker
GHC	Ghana cedis
GSMF	Ghana Social Marketing Foundation
KES	Kenya shilling
MSH	Management Sciences for Health
RPM Plus	Rational Pharmaceutical Management Plus Program [MSH]
SEAM	Strategies for Enhancing Access to Medicines
SHEF	Sustainable Healthcare Enterprise Foundation Model
TFDA	Tanzania Food and Drugs Authority
TZS	Tanzanian shilling
USAID	United States Agency for International Development
WHO	World Health Organization

INTRODUCTION TO STRATEGIES FOR ENHANCING ACCESS TO MEDICINES (SEAM)

In September 2000, Management Sciences for Health (MSH) established the Strategies for Enhancing Access to Medicines (SEAM) Program to respond to the challenge of improving access to essential medicines. With funding provided by the Bill & Melinda Gates Foundation, SEAM focused on increasing access by strengthening the systems through which medicines are supplied, as well as on improving the quality of the drug products and pharmaceutical services provided to consumers in developing countries.

Country Assessments

As a first strategic step, SEAM collaborated with the World Health Organization (WHO) in developing a framework to measure pharmaceutical access and worked with local institutions to conduct in-depth assessments in six countries: Brazil (State of Minas Gerais), Cambodia, El Salvador, Ghana, India (State of Rajasthan), and Tanzania. Each country assessment included—

- The current status of access to essential medicines
- The feasibility of implementing various combinations of strategies to improve access
- The likelihood of significant and sustainable increase in access

The SEAM Program used a series of initiatives based on public-private sector collaboration to improve access to essential medicines, including an initiative focused on retail drug sellers serving rural regions. Following a rigorous evaluation process, SEAM chose Ghana and Tanzania to pilot two different models in the private-for-profit pharmaceutical retail sector. In Kenya, SEAM provided limited technical support to an existing franchise program.

The Role of Drug Sellers

In most developing countries, retail drug shops are by far the most common type of facility where medicines can be purchased and are often the principal source of medicines for large segments of the population, particularly in underserved rural areas. These shops, however, are legally authorized to sell only products that do not require a medical prescription; the attendants have minimal or no training on appropriate dispensing of medicines, and the government typically does not provide adequate monitoring, inspection, and control. Although many essential medicines are currently available in drug shops, they are provided without the proper authorization of health authorities, and the quality of these products cannot be ensured.

In Ghana, SEAM helped the not-for-profit GSMF International and its for-profit subsidiary, GSMF Enterprises Limited, to set up the CAREshop[®] franchise for essential medicines, converting selected chemical seller shops into franchised outlets. In this model, the franchiser controls the quality of services and products sold by the franchised outlets, as well as the prices charged.

In Tanzania, SEAM assisted the Tanzania Food and Drugs Authority (TFDA) in creating a new category of government accredited, private drug dispensing outlets, sustained by a mixture of commercial and marketing incentives and local enforcement. Most newly accredited shops were converted from existing drug seller shops that were inadequately controlled and whose operators were often untrained. In this model, the national government controls the quality of services and products sold by the independent accredited drug dispensing outlets (ADDOs), with enforcement carried out in collaboration with health officials at the district and local government levels.

In Kenya, SEAM gave limited technical support to the Sustainable Healthcare Enterprise Foundation (SHEF) in rethinking and strengthening their franchises of essential drug shops operated by community health workers (CHWs) and health clinics operated by nurses. A comparison of the drug shop evaluation indicators in Ghana, Tanzania, and Kenya is provided in Annex 1.

SUMMARY OF THE SHEF FRANCHISE HEALTH CARE MODEL IN KENYA

Background

The majority of Kenyans living in rural areas access their basic essential medicines from private sector shopkeepers in nearby markets. Although the Bamako initiative implemented in Kenya in 1989 established village pharmacies run by CHWs in about 11 of the 72 districts in the country, in large part, the effort was not sustainable. Other organizations have trained CHWs over the years, such as the Anglican Church, PLAN International, and CARE. CHWs trained by these organizations and the government receive residential training of 3 to 6 weeks, and thereafter are expected to provide basic health services such as health education, preventive care, basic first aid, and treatment using a short list of essential medicines.

Problem

CHWs tend to demonstrate a high attrition rate, which has been attributed to the difficulties they have in sustaining their activities without external support. CHWs blame the lack of supervision or mentoring which existed at the beginning of the program, but fell away once donor funds were withdrawn; the high cost of medicines purchased at wholesale pharmacies, giving them very little financial return; the requirement to be mobile in the community, which means that those who are sick may not be able to find them in their time of need; and the lack of continuing education to enable them to use the latest treatment guidelines for illnesses in the community with confidence. And while other private sector drug outlets offer medications at prices most people can afford, the shops are poorly regulated and often dispense medications of dubious quality without proper diagnosis or adequate counseling.

Strategy for Change

The Sustainable Healthcare Enterprise Foundation (SHEF) established the Child and Family Wellness Shops (CFWshops™), franchised outlets with a goal of providing a reliable source of quality assured essential medicines delivered by trained CHWs or nurses who adhere to certain standards of service required by the franchise agreement. The franchise drug shops are operated by CHWs and are able to sell a more limited range of medicines (although co-trimoxazole is included in that limited list), while the clinics are operated by nurses with the ability to sell a wider range of medicines (Annex 2). The franchise clinics have authority to provide a wider range of medicines and health service interventions, and serve as referral points for the CHWs. The franchisee runs a for-profit enterprise on a full-time basis, which provides him or her with an income that is intended to help assure sustainability of the outlet. The franchise system provides standardized training on business and franchise management, medicine and client services management, and critical public health interventions in the community, including child survival interventions for malaria, diarrhea, and acute respiratory infection (ARI). The franchisees are eligible to receive a micro-loan to help cover the costs of four weeks of training, initial drug stock, and equipment and shop infrastructure. Once trained, the franchisees run drug shops/clinics in easily accessible market centers and receive ongoing supervision and mentoring support from field-based supervisors employed by the CFWshops organization. They are

required to adhere to franchise rules for service delivery. The franchisees are licensed by the Ministry of Health, and receive continuing education from SHEF to adhere to national treatment guidelines.

The SEAM Program gave limited technical assistance to SHEF starting in 2002, assisting in the development of the business plan, operating procedures, training modules, and fundraising initiatives. With the same indicators used for the Ghana and Tanzania drug seller initiatives, SEAM also conducted an endline evaluation of the program in 2004, in collaboration with SHEF, comparing SHEF franchises with grocery stores that sell a limited list of medicines. As SHEF franchises were introduced into market centers which did not have similar outlets, the comparison was made to the prior sources of medicines in the community, which are regular village grocery stores, and in some areas, private health facilities. The evaluation included only the SHEF-franchised drug shops. Because the evaluation included endline data only and since the comparison group of grocery stores only carried a limited number of medicines, the value of the evaluation results is limited.

EVALUATION METHODOLOGY

The evaluation measured (1) franchise performance; (2) impact of CFWshops on the quality of services and on the dimensions of access (geographical accessibility, availability, and affordability); and (3) client perceptions of the CFWshops outlets.

Franchise Performance

The evaluation of franchise performance determined affiliate adherence to standards for stock availability, customer interactions or relations, record keeping, condition of the premises, and availability of key equipment. This information was based on data collected during the monthly franchise supervisory visits. The evaluation of franchise performance also included an analysis of product sales, enrollment/retention, and product acquisition prices based on a review of franchiser records (Table 2 summarizes the core performance indicators, which are based on service characteristics and access dimensions; data sources; comparison groups; and some potential complementary and/or alternative indicators for these performance indicators).

Dimensions of Access

The franchised outlets provide a reliable source of quality assured essential medicines, delivered by a trained health worker who adheres to certain standards of service prescribed by the franchise agreement. The franchisee runs a for-profit enterprise on a full-time basis, which provides him or her with an income that assures sustainability of the initiative. The ongoing supervision support and continuing education also contribute to the sustainability of the venture. Thus the following access indicators were addressed—

- Availability of the short list of essential medicines and services
- Quality of services (appropriateness of dispensing recommendations and communication)
- Affordability
- Acceptability/satisfaction
- Quality of products

Dispensing Practices

The evaluation of appropriateness of dispensing (product recommendation relative to health problem/diagnosis) used a post-only comparison of CFWshops outlets and other shops in the same market for two dispensing scenarios (a caretaker with a sick two-year-old with uncomplicated malaria, and a caretaker with a sick 2-year-old with a non-pneumonia ARI).

Sampling

Each analysis was conducted using data from all facilities opened by July 2003. Baseline measures for accessibility to health care services were collected at approximately 21 sites in

2001 and 2003. For the final evaluation, 35 intervention sites were selected from the Central Province (Kirinyaga, Mbeere, and Embu districts). Control sites were selected from the neighboring Muranga district. The comparison groups and sample sizes are summarized in Table 1.

Table 1. Final Evaluation Comparison Groups and Sample Sizes

Comparison Groups	Intervention Group	Control Group
	Central Province SHEF franchises	Grocery stores in Muranga district
No. of Sampled Facilities	35 SHEF shops	30 grocery stores
Total No. of Facilities	37 SHEF shops <ul style="list-style-type: none">▪ 11 opened in 2000 (1 closed)▪ 16 opened in 2001 (2 closed, 1 reopened in 2003)▪ 12 opened in June/July 2003▪ Summary: 39 opened, 3 closed, 1 reopened. The reopened one would not be included in the study.	

The evaluation of impact on accessibility, availability, affordability, and quality of products and services was based on post-only analysis of outlets that were introduced in the Central region (Kirinyaga, Mbeere, Embu districts) of Kenya. As CFWshops were introduced into market centers that did not have similar outlets, they were compared to prior sources of medicines in the community, which had been determined to be regular village grocery stores, and in some areas, private health facilities.

Data Collection

Data sources and techniques are summarized as follows. The post-intervention data collection was conducted in July 2004.

In-depth Interviews

In-depth interviews of project implementers and stakeholders (such as SHEF, CFWshops outlets, Ministry of Health, Division of Malaria Control, District Medical Officers of Health) and review of project records provided insight on perceived benefits and limitations of the CFWshops franchise initiative, and enablers and constraints to establishment and sustainability of the program.

Supervision Checklist

A standard supervisory checklist was used for monthly site visits.

Shop Survey

Data collectors inspected shelves for product availability, prices, and medicine registration status.

Exit Interview

Exit interviews were used to assess the satisfaction and dissatisfaction of shop clients with services. For the purposes of the interview, “clients” refers to people leaving the shop after having entered to obtain products in the shop. Five clients who purchased medicines were interviewed at each facility. The data collection form was translated into Kiswahili, pilot-tested and refined in Kenya with input from the Centre for Drug Management and Policy (CEDMAP) and the data collectors.

Simulated Client Scenario

The simulated client cases were a purchase at a drug shop by a caretaker of a sick 2-year-old. Data collectors were instructed to conduct two simulated client scenarios at the shops they visited. Two simulated client cases were presented at each facility (one for childhood malaria and one for childhood ARI non-pneumonia). Data collectors recorded the prescribing practices in drug retail shops and determined the cost of treatment as prescribed in the facility. Standard methodology was applied during the scenarios using the Drug Management for Childhood Illness assessment tool developed by RPM Plus.

Outcome Measures

Table 2 describes the outcome indicators that were applied to evaluate the results of the SHEF Franchise program and summarizes the various indicators that relate to access to services and medicines. Each proposed indicator is listed along with the source of the data and the comparison periods.

Table 2. Impact Evaluation of SHEF Franchise: Dimensions, Indicators, Data Sources, and Comparison Groups

Service Characteristics and Access Dimensions	Proposed Indicators	Data Source (Instrument)	Baseline	Comparison Design	Comments
Quality of Services (Appropriateness of recommendations)	Percent encounters where appropriate antimalarial for simple childhood malaria was sold (alternatively, it could be expressed as percent encounters where inappropriate antimalarials were recommended)	Simulated client of a caretaker with a sick two-year-old child with uncomplicated malaria	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district.	<p>Complementary indicators:</p> <ul style="list-style-type: none"> • Percent encounters where appropriate antimalarial was recommended (in case it was not purchased due to insufficient funds) • Percent encounters where attendant asked for more information about the condition presented • Percent encounters where the attendant refers the client to a health center or physician
Quality of Services (Appropriateness of recommendations)	Percent encounters where an antibiotic was sold (inappropriately) for childhood acute respiratory infection (non-pneumonia cough/cold)	Simulated client of a caretaker with a sick two-year-old with ARI (non-pneumonia cough/cold)	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district	<p>Complementary indicators:</p> <ul style="list-style-type: none"> • Percent encounters where attendant asked for more information about the condition presented • Percent encounters where the attendant refers the client to a health center or physician

Evaluation Methodology

Service Characteristics and Access Dimensions	Proposed Indicators	Data Source (Instrument)	Baseline	Comparison Design	Comments
Quality of Services (Dispensing Communications)	Percent encounters where attendant provided instruction to patient/caregiver on how to take/give medication	Simulated client of a caretaker with a sick two -year-old (malaria and ARI non-pneumonia scenario)	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district	Complementary indicator: <ul style="list-style-type: none"> Percent encounters where attendant gave information on possible problems with medication
Quality of Products	Percent of items sampled that are registered with the Kenyan drug authority	Sampling of products to collect label information	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district	Complementary indicator— <ul style="list-style-type: none"> Compliance with franchise-authorized medicines (approved for sale by CHWs)
Availability	Percent of a set of tracer items in stock	Facility stock/shelf inspection	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district	
Affordability	Average percent difference in price to patients between franchise and non-franchise shops, for a set of tracer items	Facility stock/shelf inspection	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district	Complementary indicator— <ul style="list-style-type: none"> Average number of hours (or days) worked to pay for standard course of selected essential medicines
Acceptability/ Satisfaction	Percent of customers who express satisfaction with service	Structured client exit interview	N/A	Post-only comparison of SHEF franchises in Central Province with other drug outlets in Muranga district	To ascertain customer perception of service based on fulfillment of pre-determined criteria

SUMMARY OF RESULTS

The first 11 CFWshops opened in April 2000; as of August 2006, 68 franchise outlets (24 drug shops and 44 clinics) were in operation. All the franchise shops are converting to the clinic model. CFW outlets reported treating over 100,000 patients during the first quarter of 2005, three times the 33,500 patients served during the first quarter of 2004. Approximately 25 percent of all patients utilizing the outlets did so for symptoms of malaria. A summary of SHEF shop assessment results is provided in Annex 3 with full results provided in Annex 4.

Quality of Essential Medicines

- Ninety-one percent of the products on the shelves in the CFWshops were on the product list as approved for sale in the franchise outlets. However, only about 50 percent of the products were documented as being registered in Kenya in both the SHEF shops and the grocery stores.

Quality of Dispensing Services

- In a simulated client scenario of a caretaker with a two-year-old child that has a respiratory infection, 96 percent of the SHEF franchise attendants asked for more information about symptoms; for malaria, the figure was 78 percent. The figures for grocery stores were 26 percent and 39 percent, respectively.
- In a simulated client scenario of a caretaker with a two-year-old child with malaria, 56 percent received an antimalarial from the SHEF franchises compared to 4 percent in the grocery stores; 89 percent of the drug sellers at the SHEF franchises provided instructions on how to take the medicines compared to 30 percent of sellers in grocery stores.

Availability of Essential Medicines

- Of 21 tracer items, 71 percent were available at the SHEF franchises. For the five tracer items that were available in both groceries and franchise shops, average availability was higher in the franchise shops for all five medicines: amodiaquine—70 percent in groceries compared with 89 percent in franchise shops; chlorpheniramine—20 percent compared with 85 percent; mebendazole—17 percent compared with 81 percent; paracetamol—97 percent compared with 100 percent; and tetracycline eye ointment—3 percent compared with 70 percent.

Affordability of Essential Medicines

Although cost can be a major barrier in proper treatment, low cost alone does not mean that the use of medicines is rational. Nonetheless, it is still helpful to compare cost of medicines to evaluate services and assess affordability.

- The average price of the five items found at both outlets was 5.64 Kenyan shillings (KES) at the grocery stores, compared with KES 3.88 at the CFWshops—a difference of 31 percent.
- The median price for malaria treatment was KES 5 at grocery stores (range 1–20) and KES 40 at the SHEF franchises (range 5–92); the median cost for a treatment of ARI was KES 5 at the grocery stores (range 1–650) compared with KES 40 at the SHEF franchises (range 5–100).
- Shoppers interviewed had the same perception regarding medicines prices at both outlets—reporting them as either “cheap” or “reasonable.”

Other Key Lessons Learned

SHEF has many strengths including the expertise of its management team, the value of the services it provides to franchisees and rural populations, and the support it receives from its Board. However, at the time of the 2004 evaluation, SHEF needed to improve its management processes to sustain and expand the program.

Monitoring and Evaluation

- More field data was needed to help inform management when making decisions.
- SHEF lacked an adequate supervision system for outlets, and needed to develop and implement a strong supervision mechanism to enforce franchise rules and improve performance.
- Concrete and standardized performance indicators were needed. It was unclear what should be measured—health impact or financial performance.
- There were insufficient data on outlet stock; therefore, monthly reports were incomplete. SHEF did not have an accurate picture of how the outlets are performing financially, and franchisees could easily purchase substandard products from other suppliers.
- There was little feedback from franchisees on how SHEF should manage the outlets.
- Franchised outlets must stock products delivered by SHEF, which are quality assured and registered. The extent to which only items provided by SHEF are available for sale in the franchise outlet should be included in evaluation measures.
- Training materials needed to be revised. Some training materials were below the level of nurses but above the level of CHWs. Nurses were unchallenged in the training sessions while CHWs could not maintain the pace. Follow-up training was lacking.

Business Practices

- An increased knowledge of general business skills was needed by franchisees to improve awareness of concepts such as supply and demand, customer focus, and advertising.
- Designated marketing staff should be assigned to help SHEF and franchisees.
- Business analysts were needed. There was insufficient financial and business analysis of the outlets. This made it difficult for SHEF to anticipate or detect performance problems and resolve them before they affected cash flow.
- More knowledge on Kenyan geographic markets was needed to aid in site selection. Site selection had been primarily driven by supply motivations, making it difficult to identify good locations for successful outlets.
- Need to increase the identity of franchisees as a group. There was no strong peer pressure to perform as a group. There seemed to be no strong network between the franchisees that allows for interpersonal interaction and opportunities to learn from each other.
- Coordination and synergy needed to be increased between the various departments, regional offices, shops, and clinics. A wide variety of templates were being used to record and store data.
- Shops were losing patients because CHWs were unauthorized to sell certain medicines and were incapable of providing medical services.

Sustainability of the SHEF Franchise Model

- SHEF's target was to open 150 outlets by the end of 2005. This figure was not met, and in fact, opening of new shops was deferred while the business model was reviewed. A greater number of outlets should generate higher revenues from product sales and management fees, which would help to fund central overhead.
- Franchise management fees were not being collected, which contributed to cash flow problems. The SHEF franchise model continued to rely primarily on donor support, which is expected to continue, especially in the near future. The long-term commercial sustainability of the franchise without donor support is unknown.

NEXT STEPS

As part of their plan to review the CFWshop business model, SHEF will consider the following activities—

- Successful conversion of all shops to the clinic model
- Possibility of franchisor-owned clinics versus nurse/operator-owned clinics
- Introducing marketing and strengthening training practices
- Increasing efficiency of operational planning and management
- Improving business analysis and financial management of the organization
- Deciding the extent to which commercial sustainability is as important as the social benefit of the program
- Greater control of services/products provided
- Training and supervision strategy
- Addressing requirements of pharmacy and nursing practice regulators/associations
- Need for full-scale evaluation of clinic model
- Investment capital/donor support
- Developing performance indicators by which SHEF should be measured
- Preparing a realistic five-year business plan and budget to expand the organization

ANNEX 1: COMPARISON OF DRUG SHOP EVALUATION INDICATORS: GHANA, TANZANIA, KENYA

COUNTRY	GHANA	TANZANIA	KENYA
PROGRAM I: Private-for-profit Sector	CAREshop Franchise	Accredited Dispensing Drug Outlet (ADDO) Network	Sustainable Healthcare Enterprise Foundation (SHEF)/ Cry for the World (CFW)
Program Target	250 CAREshop outlets established by mid-2005 <i>Program achievement: 263 CAREshop outlets by July 2005; 300 scheduled by end of 2005</i>	80 ADDOs accredited and operating in Ruvuma by mid-2005 <i>Program achievement: 160 ADDOs operating by July 2005</i>	200 franchised outlets by 2005 <i>Program achievement: 65 franchised outlets by July 2005</i>
Demonstration/Pilot Regions	Volta, Eastern, Brong-Ahafo Regions <i>(Brong-Ahafo was later dropped from the evaluation)</i>	Ruvuma	Central Region—Kirinyaga, Mbeere, Embu districts
Comparison/Control Regions	Western Region	Singida	Muranga district
Baseline	August 2003—Pilot region	March 2003—Pilot and Control regions	N/A
Endline	October/November 2004	October/November 2004	August 2004
Design for Performance and Impact Evaluation	<ul style="list-style-type: none"> • Pre-post comparison of CAREshop outlets in Eastern and Volta Region (38 baseline and 50 endline) • Post-only comparison of CAREshop outlets in Eastern and Volta Region (90 baseline and 55 endline) with another group of licensed chemical seller (LCS) shops in Western Region (46) 	Pre-post comparison of ADDOs (50 endline) with: <ul style="list-style-type: none"> • DLDBs in Ruvuma demonstration region (70 baseline) • DLDBs in control districts in Singida (76 baseline and 60 endline) 	<ul style="list-style-type: none"> • Post-only comparison of SHEF franchises (27) in the pilot region against private retail outlets (grocery stores) in the control area (30)

COUNTRY	GHANA	TANZANIA	KENYA
PROGRAM I: Private-for-profit Sector	CAREshop Franchise	Accredited Dispensing Drug Outlet (ADDO) Network	Sustainable Healthcare Enterprise Foundation (SHEF)/ Cry for the World (CFW)
Quality of Services (Appropriateness of Recommendations)	<ul style="list-style-type: none"> percent encounters where appropriate antimalarial¹ for simple malaria was sold CAREshop baseline: 27 percent CAREshop endline: 35 percent Test baseline (Eastern/Volta): 26 percent Test endline (Eastern/Volta): 45 percent Control endline (LCS Western): 50 percent Percent encounters where an antibiotic was inappropriately sold for upper respiratory tract infection CAREshop endline: 0 percent Test endline (Eastern/Volta): 9 percent Control endline (LCS Western): 10 percent 	<ul style="list-style-type: none"> percent encounters where appropriate first line antimalarial² was sold for treatment of malaria Test baseline (Ruvuma): 16 percent Test endline (Ruvuma): 32 percent Control baseline (Singida): 29 percent Control endline (Singida): 48 percent Percent encounters where an antibiotic was inappropriately dispensed or recommended for childhood upper respiratory tract infection 2001 DLDBs: 39 percent Test ADDOs (Ruvuma): 14 percent Control DLDBs (Singida): 25 percent 	<ul style="list-style-type: none"> percent encounters where appropriate antimalarial² for simple malaria was sold SHEF shops: 15 percent Grocery stores: 0 percent Percent encounters where an antibiotic was inappropriately sold for childhood acute respiratory infection SHEF shops: 7 percent Grocery stores: 0 percent
Quality of Services (Dispensing Communication)	<ul style="list-style-type: none"> Percent encounters where attendant provided instruction to patient/caregiver on how to take/give medication <u>Malaria:</u> 	<ul style="list-style-type: none"> Percent encounters where attendant provided instruction to patient/caregiver on how to take/give medication <u>Malaria:</u> 	<ul style="list-style-type: none"> Percent encounters where attendant provided instruction to patient/caregiver on how to take/give medication <u>Malaria:</u>

¹ Chloroquine

² Sulfadoxine-pyrimethamine

Annex 1: Comparison of Drug Shop Evaluation Indicators: Ghana, Tanzania, Kenya

COUNTRY	GHANA	TANZANIA	KENYA
PROGRAM I: Private-for-profit Sector	CAREshop Franchise	Accredited Dispensing Drug Outlet (ADDO) Network	Sustainable Healthcare Enterprise Foundation (SHEF)/ Cry for the World (CFW)
	<p>CAREshop baseline: 94 percent CAREshop endline: 85 percent Test baseline (Eastern/Volta): 94 percent Test endline (Eastern/Volta): 83 percent Control endline (LCS Western): 79 percent <u>URTI:</u> CAREshop endline: 96 percent Test endline (Eastern/Volta): 76 percent Control endline (LCS Western): 82 percent</p>	<p>Test baseline (Ruvuma): 81 percent Test endline (Ruvuma): 60 percent Control baseline (Singida): 77 percent Control endline (Singida): 77 percent <u>URTI:</u> 2001 Assessment: 88 percent Test endline (Ruvuma): 78 percent Control endline (Singida): 78 percent</p>	<p>SHEF shops: 89 percent Grocery stores: 30 percent <u>URTI:</u> SHEF shops: 74 percent Grocery stores: 22 percent</p>
Quality of Products	<ul style="list-style-type: none"> Percent products stocked that are registered with the Ghana drug registration authority CAREshop: 50 percent LCS (Eastern/Volta): 50 percent LCS (Western): 47 percent 	<ul style="list-style-type: none"> Percent of items sampled that are registered with the TFDA or locally manufactured Test baseline (Ruvuma): 74 percent Test endline (Ruvuma): 98 percent Control baseline (Singida): 70 percent Control endline (Singida): 90 percent 	<ul style="list-style-type: none"> Percent of items sampled that are registered with the Kenyan drug authority SHEF shops: 48 percent Grocery stores: 47 percent
Availability	<ul style="list-style-type: none"> Percent of a set of tracer items in stock³ 	<ul style="list-style-type: none"> Percent of a set of tracer items in stock (Part I and Part II medicines)⁴ 	<ul style="list-style-type: none"> Percent of a set of tracer items in stock⁵

³ Full tracer list included items not approved for sale in CAREshops, which decreased from baseline to endline—reflecting greater adherence to legal guidelines. Also, certain products were in short supply for long periods throughout the region (e.g., bed nets, SP, oral contraceptives).

⁴ According to Tanzania regulation, Part II medicines are non-prescription medicines and may be sold without a prescription by DLDBs (Part II shops) or pharmacies (Part I shops). Part I medicines are prescription only, and at baseline, were only allowed to be dispensed against a prescription by Part I shops.

COUNTRY	GHANA	TANZANIA	KENYA
PROGRAM I: Private-for-profit Sector	CAREshop Franchise	Accredited Dispensing Drug Outlet (ADDO) Network	Sustainable Healthcare Enterprise Foundation (SHEF)/ Cry for the World (CFW)
	CAREshop baseline: 66 percent CAREshop endline: 55 percent Test baseline (Eastern/Volta): 59 percent Test endline (Eastern/Volta): 46 percent Control endline (LCS Western): 55 percent	Test baseline (Ruvuma): 61 percent Test endline (Ruvuma): 80 percent Control baseline (Singida): 47 percent Control endline (Singida): 53 percent	SHEF shops: 71 percent Grocery stores: 10 percent
Affordability	<ul style="list-style-type: none"> Average percent difference in price to patients between franchise and non-franchise shops, for a set of tracer items (endline only) CAREshop median: 4,872 Ghana cedis (GHC) Test median (Eastern/Volta): 5,012 GHC (+3 percent) Control median (LCS Western): 2,762 GHC (-43percent) <u>Malaria treatment median cost:</u> CAREshop median: 5,250 GHC Test Region median (Eastern/Volta): 4,742 GHC Control Region median (LCS Western): 7,185 GHC 	<ul style="list-style-type: none"> Average percent difference in price to patients between ADDOs and DLDBs, for a set of tracer items (endline only) 0 percent (Median cost 195 Tanzanian shillings (TZS) in Test Region (Ruvuma) and Control Region (Singida)) <u>Malaria treatment median cost:</u> Test Region (Ruvuma): TZS 200 Control Region (Singida) TZS 500 <u>URTI treatment median cost:</u> Test Region (Ruvuma): TZS 900 Control Region (Singida): TZS 1,000 	<ul style="list-style-type: none"> Average percent difference in price to patients between franchise and non-franchise shops, for a set of tracer items 31 percent more at grocery stores than SHEF shops (5.64 Kenyan shillings (KES) compared with KES 3.88) Only 5 items were found at both outlets. <u>Malaria treatment median cost:</u> SHEF shops: KES 40 Grocery stores: KES 5 <u>URTI treatment median cost:</u> SHEF shops: KES 40

Regulations were revised that allowed ADDOs to sell certain Part I medicines. At the time of the endline survey, all of the Part I items on the tracer list were approved for sale in ADDOs, but were not approved for sale by DLDBs.

⁵ Only five items on the tracer list were found at the grocery stores (amodiaquine, chlorpheniramine, mebendazole, paracetamol tabs, tetracycline eye ointment).

Annex 1: Comparison of Drug Shop Evaluation Indicators: Ghana, Tanzania, Kenya

COUNTRY	GHANA	TANZANIA	KENYA
PROGRAM I: Private-for-profit Sector	CAREshop Franchise	Accredited Dispensing Drug Outlet (ADDO) Network	Sustainable Healthcare Enterprise Foundation (SHEF)/ Cry for the World (CFW)
	<p><u>URTI treatment median cost:</u> CAREshop median: 8,000 GHC Test Region median (Eastern/Volta): 7,500 GHC Control Region median (LCS Western): 7,500 GHC</p>		<p>Grocery stores: KES 5</p>
<p>Acceptability/Satisfaction (percent of customers who express satisfaction with service)</p>	<p><u>CAREshop</u> Average: 5 percent Good: 84 percent Excellent: 10 percent <u>Test Region (Eastern/Volta)</u> Average: 10 percent Good: 89 percent Excellent: 1 percent <u>Control Region endline (LCS Western)</u> Poor: 1 percent Average: 13 percent Good: 83 percent Excellent: 2 percent</p>	<p><i>Test Region (Ruvuma) percent— Control Region (Singida) percent</i> Average: 4—12 Good: 83—84 Excellent: 13—4</p>	<p><u>SHEF shops</u> Poor: 0 percent Good: 60 percent Excellent: 40 percent <u>Grocery stores</u> Poor: 1 percent Good: 63 percent Excellent: 36 percent</p>

ANNEX 2: MEDICINES AUTHORIZED TO BE PROVIDED AT SHEF OUTLETS

Drug List for Shops	
Item Description	Strength
MALARIA	
Amodiaquin Suspension 50 mg/5 ml	50 mg/5 ml
Amodiaquin Tabs 200 mg	200 mg
NETS	
Mosquito Net 5*6 ft Green Square Pc	
Mosquito Net 5*6 ft White Round Pc	
Mosquito Net 5*6 ft Blue Round Pc	
NETS RETREATMENT	
Power Tabs Pc	
Cotrimoxazole Suspension 200/40 mg per 5 ml	200/40 mg per 5ml
Cotrimoxazole Tabs (Adult) 400/80 mg	400/80 mg
Cotrimoxazole (Pediatric) Tabs 200/40 mg	200/40 mg
RESPIRATORY TRACT CONDITIONS	
Antiseptic throat lozenges	
Chlorpheniramine Syrup 2 mg/5 ml	2 mg/5 ml
Chlorpheniramine Tabs 4 mg	4 mg
Trihistamine Syrup	
Vicks Kingo	
Anti-asthmatic Tabs (franol)	
Salbutamol Syrup 2 mg/5 mL	2 mg/5 ml
Salbutamol Tabs 4 mg	4 mg
FEVER, PAIN, AND INFLAMMATION	
Acetylsalicylic acid (Aspirin) Tabs 300 mg	300 mg
Analgesic Balm	
Ibuprofen Tabs	200
Paracetamol Susp 120 mg per 5mL	120 mg/5 ml
Paracetamol Tabs 500 mg	500 mg
EPIGASTRIC PAIN AND HYPERACIDITY	
Magnesium Trisilicate Suspension	
Magnesium Trisilicate Tabs	
WORMS	
Levamisole Syrup 40 mg per 5 mL	40 mg/5 ml
Levamisole Tabs 40 mg	40 mg
Mebendazole Syrup 100 mg per 5 ml	100 mg/5 ml
Mebendazole Tabs 100 mg	100 mg
Metronidazole Suspension 200 mg per 5 ml	200 mg/5 ml
Metronidazole Tabs 400 mg	400 mg
Tinidazole Tabs 500 mg	500 mg
Tinidazole Tabs 500 mg	500 mg
FUNGAL INFECTIONS	
Whitfield Ointment 6%/3%	6%/3%
WOUNDS AND BURNS	
Chlorhexidine/Cetrimide (Dilute 10 ml to 1 L)	
Gentian Violet Crystals	
Methylated Spirit	
Povidone-iodine (20 mL undiluted for wounds)	
EYE CONDITIONS	
Tetracycline Eye Ointment 1%	1%

Drug List for Shops	
Item Description	Strength
Ferrous & B Complex Syrup	
Ferrous Sulphate Tabs 200 mg	200 mg
Folic Acid Tabs 5 mg	5 mg
SUPPLEMENTS	
Multivitamin Syrup	
Multivitamin Tabs	
Vitamin C (Ascorbic Acid) Tablets 200 mg	200 mg
Oral Rehydration Salts (ORS)	
REPRODUCTIVE HEALTH	
Trust Condoms 3/Pkt	
Femiplan Pills Cycle	
STATIONERY	
Cash Sale Book	
Daily Patient Register	
Referral Book	
Requisition Book	
Patient TCA (Small) Cards	
Patients Big Cards	
Stock Cards	
MEDICAL AND SURGICAL SUPPLIES	
Cotton Wool	
Dispensing envelopes (Paper)	
Gauze swabs nonsterile 4x4 100/Pck	
Gauze W.O.W Bandage 3"	
Gloves heavy duty	
Gloves latex N/S large	
Labels (Oral products) 35x70 mm 200	
Medicine Spoons	
Plastic bottles 120 ml	
Sanitary Pads (Always)	
Strapping Zinc Oxide	
MEDICAL EQUIPMENT	
Tablet Counter	
Thermometer	
Dressing Forceps	
Gallipot	
Kidney Dish	
Measuring cylinder plastic	
Measuring jug plastic	
Weighing scale	
OTHER HEALTH COMMODITIES	
Scotts Emulsion 100 ml Regular	
Scotts Emulsion 100 ml Orange	
Eno Satchets Lemon 48's	
Lucozade Drink Small 20 0mL	
Dettol 100 ml	
Vaseline Petroleum Jelly 25 g	
Vaseline Petroleum Jelly 50 g	
Colgate Toothbrush Premier	
Colgate Toothpaste Triple Action 25 ml	
Colgate Toothpaste Triple Action 50 ml	

Drug List for Shops	
Item Description	Strength
Imperial Leather Soap Std 100 g	
Imperial Leather Soap Bath 150 g	
Premier Toilet Soap Yellow	
Robb Ointment Dispenser 7g	
Robb Ointment Dispenser 4 g	

Drug List for Clinic	
Item Description	Strength
MALARIA	
Amodiaquin Suspension	50 mg/5 L
Amodiaquin Tabs	200 mg
Artesunate/Amodiaquine Tablets	500/25 mg
Artemether/Lumefathrine	500/25 mg
Quinine Injection	600mg/2ml (I.M)
Quinine Drops	20%w/v 15ml
Quinine Sulphate	300mg Tabs
Quinine Injection	600mg/2ml
NETS	
Mosquito Net 5*6 ft Green Square Pc	
Mosquito Net 5*6 ft Blue Round Pc	
Mosquito Net 5*6 ft White Round Pc	
NETS RETREATMENT	
Power Tabs Pc	
Amoxicillin Capsules	250 mg
Amoxicillin Syrup	125 mg/5 ml
Cotrimoxazole Suspension	200/40 mg
Cotrimoxazole Tabs (Adult)	400//80 mg
Cotrimoxazole (Pediatric) Tabs	200/40 mg
Doxycycline Caps	100 mg
Norfloxacin Tabs	400 mg
Penicillin Benzyl injection	1 m.u.
Pen.Benzathine inj.	2.4 m.u
Pen.Procaine for inj.	4.8 m.u
RESPIRATORY TRACT CONDITIONS	
Antiseptic throat lozenges	
Chlorpheniramine Syrup	2 mg/5 ml
Chlorpheniramine Tabs	4 mg
Trihistamine Syrup	
Vicks Kingo	
Anti-asthmatic Tabs (franol)	
Salbutamol Syrup	2 mg/5 ml
Salbutamol Tabs	4 mg
FEVER, PAIN, AND INFLAMMATION	
Acetylsalicylic acid (Aspirin) Tabs	300 mg
Analgesic Balm	
Ibuprofen Tabs	200 mg
Indomethacin Caps	25 mg
Paracetamol Susp	120 mg/5 ml
Paracetamol Tabs	500 mg
EPIGASTRIC PAIN AND HYPERACIDITY	

Drug List for Clinic	
Item Description	Strength
Magnesium Trisilicate Suspension	
Magnesium Trisilicate Tabs	
WORMS	
Levamisole Syrup	40 mg/5 ml
Levamisole Tabs	40 mg
Mebendazole Syrup	100 mg/5 ml
Mebendazole Tabs	100 mg
Metronidazole Suspension	200 mg/5 ml
Metronidazole Tabs	400 mg
Tinidazole Tabs	500 mg
Tinidazole Tabs	500 mg
FUNGAL INFECTIONS	
Clotrimazole cream	1%
Clotrimazole oral paint	1%
Clotrimazole Pessaries	200 mg
Whitfield Ointment	6%/3%
ALLERGIC SKIN CONDITIONS	
Hydrocortisone Ointment	1%
WOUNDS AND BURNS	
Antibiotic dusting powder (Grabacin)	
Silver sulphadiazine	1%
LOCAL ANAESTHETIC	
Lignocaine injection	2%
Chlorhexidine/Cetrimide (Dilute 10 ml to 1 L)	
Gentian Violet Crystals	
Methylated Spirit	
Povidone-iodine (20 ml undiluted for wounds)	
EYE CONDITIONS	
Tetracycline Eye Ointment	1%
Ferrous & B Complex Syrup	
Ferrous Sulphate Tabs	
Folic Acid Tabs	
SUPPLEMENTS	
Multivitamin Syrup	
Multivitamin Tabs	
Vitamin B Complex Tablets	
Vitamin C (Ascorbic Acid) Tablets	200 mg
EMESIS	
Promethazine Tabs	2 mg
Oral Rehydration Salts (ORS)	
Diadis Tabs (for HIV/AIDS cases only)	
Adrenaline Injection	1 mg/ml
Aminophilline Injection	250 mg/10 ml
Chlorpheniramine Injection	10 mg/5 ml
Diazepam inj	20 mg/2 ml
Hydrocortisone inj	100 mg
Paracetamol inj	150 mg/ml
Promethazine inj B124	50 mg/2 ml
REPRODUCTIVE HEALTH	
Trust Condoms 3/Pkt	
Femiplan Pills Cycle	

Drug List for Clinic	
Item Description	Strength
NEEDLES AND SYRINGES	
Needles G21	
Needles G23	
Syringes 2 ml	
Syringes 5 ml	
STATIONERY	
Cash Sale Book	
Daily Patient Register	
Referral Book	
Requisition Book	
Patient TCA (Small) Cards	
Patients Big Cards	
Stock Cards	
MEDICAL AND SURGICAL SUPPLIES	
Cotton Wool	
Dispensing envelopes (Paper)	
Gauze swabs non sterile 4x4 100/Pck	
Gauze W.O.W Bandage 3"	
Gloves heavy duty	
Gloves Plastic Disposable Medium	
Gloves latex N/S large	
Gloves sterile 7.5	
Labels (Oral products) 35x70 mm 200	
Plastic bottles 120 ml	
Medicine Spoons	
Sanitary Pads (Always)	
Spatulas	
Strapping Zinc Oxide	
MEDICAL EQUIPMENT	
Tablet Counter	
Thermometer	
Measuring cylinder plastic	
Measuring jug plastic	
Dressing Kit	
Weighing scale	
OTHER HEALTH COMMODITIES	
Scotts Emulsion 100 ml Regular	
Scotts Emulsion 100 ml Orange	
Eno Sachets Lemon 48's	
Lucozade Drink Small 200 ml	
Dettol 100 ml	
Vaseline Petroleum Jelly 25 g	
Vaseline Petroleum Jelly 50 g	
Colgate Toothbrush Premier	
Colgate Toothpaste Triple Action 25 ml	
Colgate Toothpaste Triple Action 50 ml	
Imperial Leather Soap Std 100 g	
Imperial Leather Soap Bath 150 g	
Premier Toilet Soap Yellow	
Robb Ointment Dispenser 7g	
Robb Ointment Dispenser 4 g	

ANNEX 3: SUMMARY OF SHEF SHOP ASSESSMENT RESULTS

Service Characteristics and Access Dimensions	Proposed Indicators	Study Comparison Design	Complementary Indicators
Quality of Services (Appropriateness of recommendations)	<p>Percent encounters where appropriate antimalarial⁶ for simple malaria was sold SHEF shops: 15 percent Grocery stores: 0 percent</p> <p>(Any antimalarial sold— SHEF shops: 56 percent Grocery stores: 4 percent)</p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p> <p>Post-only comparison of 27 SHEF Franchises in Central Province with 30 grocery stores in Muranga district</p>	<p>Percent encounters where attendant asked for more information about the condition presented (symptoms) SHEF shops: 78 percent Grocery stores: 39 percent</p> <p>Percent encounters where the attendant refers the client to a health center or physician SHEF shops: 19 percent Grocery stores: 60 percent</p>
Quality of Services (Appropriateness of Recommendations)	<p>Percent encounters where an antibiotic was sold for childhood URTI SHEF shops: 7 percent Grocery stores: 0 percent</p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p> <p>Post-only comparison of 27 SHEF Franchises in Central Province with 30 grocery stores in Muranga district</p>	<p>Percent encounters where attendant asked for more information about the condition presented (symptoms) SHEF shops: 96 percent Grocery stores: 26 percent</p> <p>Percent encounters where the attendant refers the client to a health center or physician. SHEF shops: 19 percent Grocery stores: 64 percent</p>
Quality of Services (Dispensing Communications)	<p>Percent encounters where attendant provided instruction to patient/caregiver on how to take/give medication <u>Malaria:</u> SHEF shops: 89 percent</p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p>	<p>Percent encounters where attendant gave information on possible problems with medication <u>Malaria:</u> SHEF shops: 15 percent Grocery stores: 0 percent</p>

⁶ Sufadoxine-pyrimethamine

Service Characteristics and Access Dimensions	Proposed Indicators	Study Comparison Design	Complementary Indicators
	<p>Grocery stores: 30 percent</p> <p><u>URTI:</u> SHEF shops: 74 percent Grocery stores: 22 percent</p>	<p>Post-only comparison of 27 SHEF franchises in Central Province with 30 grocery stores in Muranga district</p>	<p><u>URTI:</u> SHEF shops: 23 percent Grocery stores: 0 percent</p>
Affordability	<p>Average percent difference in price to patients between franchise and non-franchise shops, for a set of tracer items 31 percent more at grocery stores than SHEF shops (KES 5.64 compared with KES 3.88) Only 5 items were found at both outlets. <u>Malaria treatment median cost:</u> SHEF shops: KES 40 Grocery stores: KES 5 <u>URTI treatment median cost:</u> SHEF shops: KES 40 Grocery stores: KES 5</p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p> <p>Post-only comparison of 27 SHEF franchises in Central Province with 30 grocery stores in Muranga district</p>	
Availability	<p>Percent of a set of tracer items in stock SHEF shops: 71 percent Grocery stores: 10 percent⁷</p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p> <p>Post-only comparison of 27 SHEF franchises in Central Province with 30 grocery stores in Muranga district</p>	
Acceptability/Satisfaction	<p>Percent of customers who express satisfaction with service <u>Customer rating of overall quality of experience:</u> <u>Percent of customers that rated their</u></p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p>	

⁷ Only five items on the tracer list were found at the grocery stores (amodiaquine, chlorpheniramine, mebendazole, paracetamol tabs, tetracycline eye ointment)

Annex 3: Summary of SHEF Shop Assessment Results

Service Characteristics and Access Dimensions	Proposed Indicators	Study Comparison Design	Complementary Indicators
	<p>satisfaction with the services at SHEF shops as: Poor = 0 percent Good = 60 percent Excellent = 40 percent</p> <p>Grocery stores Poor = 1 percent Good = 63 percent Excellent = 36 percent</p>	<p>Post-only comparison of 27 SHEF franchises in Central Province with 30 grocery stores in Muranga district</p>	
Quality of Products	<p>Percent of items sampled that are registered with the Kenyan drug authority SHEF shops: 48 percent Grocery stores: 47 percent</p>	<p>Baseline None</p> <hr/> <p>Endline August 2004</p> <p>Post-only comparison of 27 SHEF franchises in Central Province with 30 grocery stores in Muranga district</p>	<p>Compliance with franchise-authorized medicines (approved for sale by CHWs) SHEF shops: 91 percent of products approved for sale</p>

ANNEX 4: FULL RESULTS OF SHEF EVALUATION

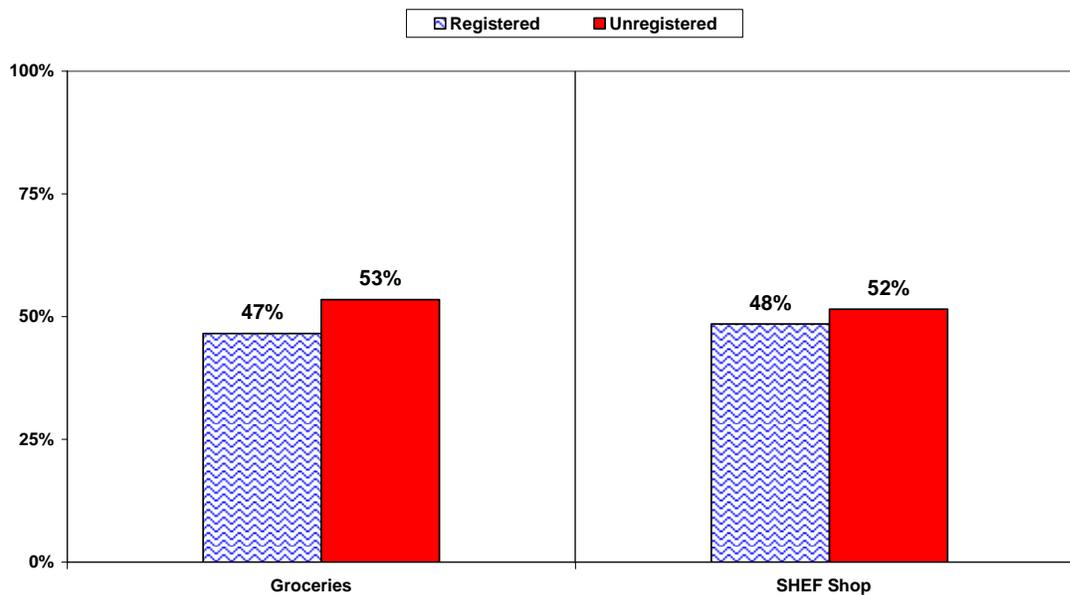
Quality of Products Findings:

Comparison of percent of Products Registered at Groceries and SHEF Franchises

Registration Status	Grocery Store	SHEF Franchise
Registered	47%	48%
Not Registered	53%	52%
Total	100%	100%

* Note: Items were considered not registered when there was no Registration Number nor a Registration Status listed with the Pharmacy and Poisons Board.

Comparison of Percent Registered and Not Registered Drugs at Groceries and SHEF Franchises, August 2004

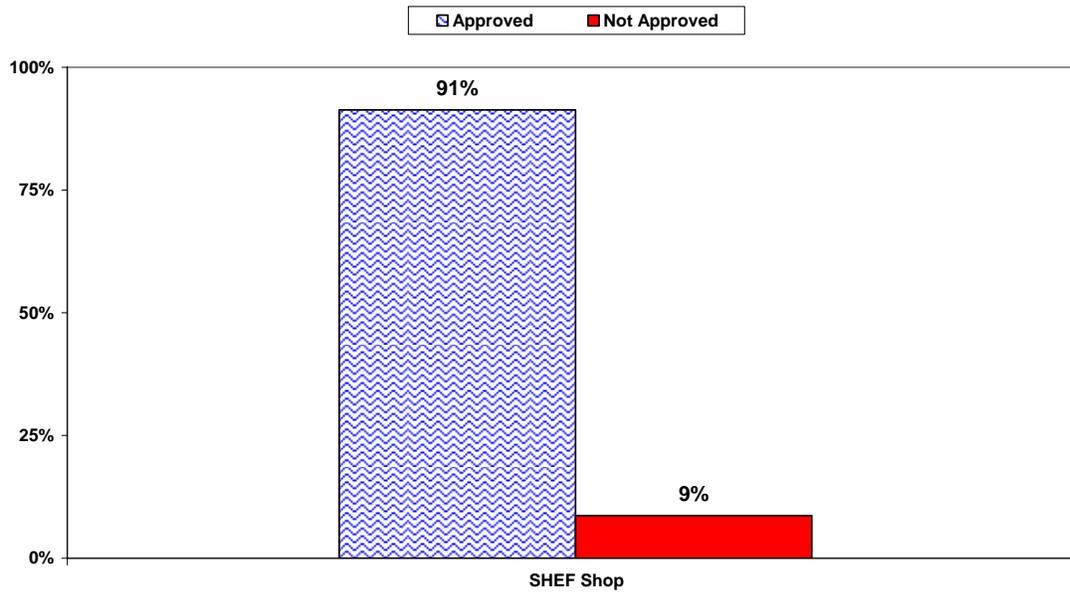


Percent of Products Observed That Are Approved for Sale in SHEF Franchises

Approved for Sale?	SHEF Franchise	
	# Approved	% Approved
Yes	211	91
No	20	9
Total	231	100%

* Note: Products were compared to March 2004 SHEF Product List

**Percent Items Observed that Were Approved for Sale in SHEF Franchises,
According to March 2004 SHEF Product List**



Findings from exit interviews with clients on perceived quality of products:

Medicine Sale Characteristics

Grocery Client Responses: 7

SHEF Client Responses: 75

Indicates more clients visited SHEF franchises for medicine purchases.

Question	Respondent Rating Scale	Grocery Store	SHEF
The quality of the DRUGS you purchased	Poor	0%	0%
	Good	29%	51%
	Excellent	29%	32%
	Don't know	43%	17%

Product Sale Characteristics

Grocery Client Responses: 84

SHEF Client Responses: 8

Indicates more clients visited grocery stores for non-medicine or other product purchases.

Question	Respondent Rating Scale	Grocery Store	SHEF
The quality of the PRODUCTS you purchased	Poor	0%	0%
	Good	73%	100%
	Excellent	27%	0%

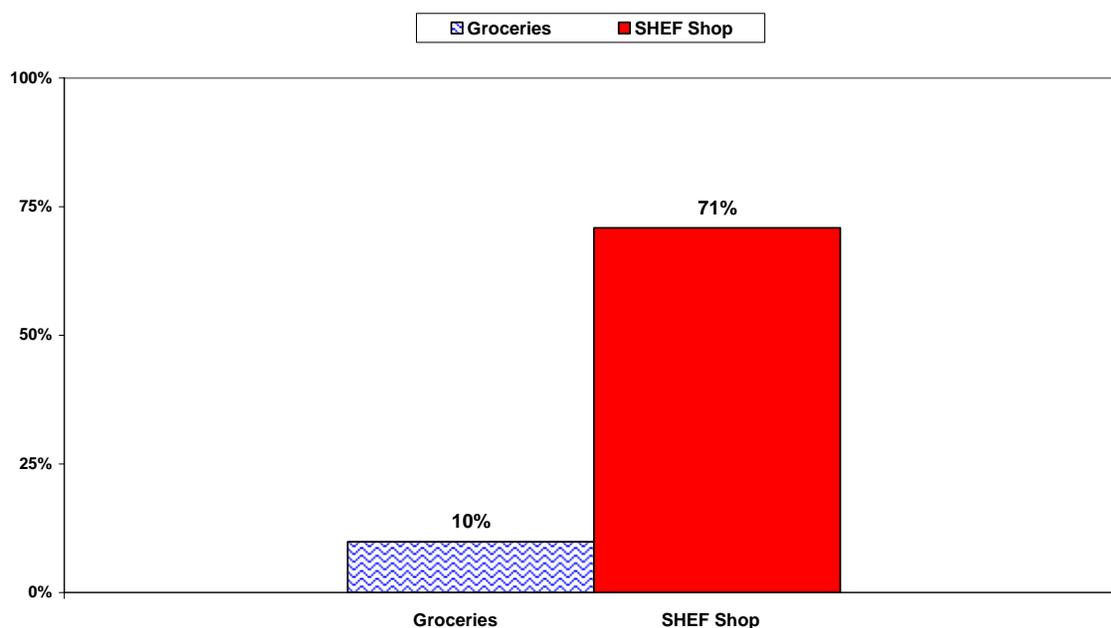
Availability Findings

Average Availability of All Tracer Items in Groceries and SHEF Franchises, August 2004

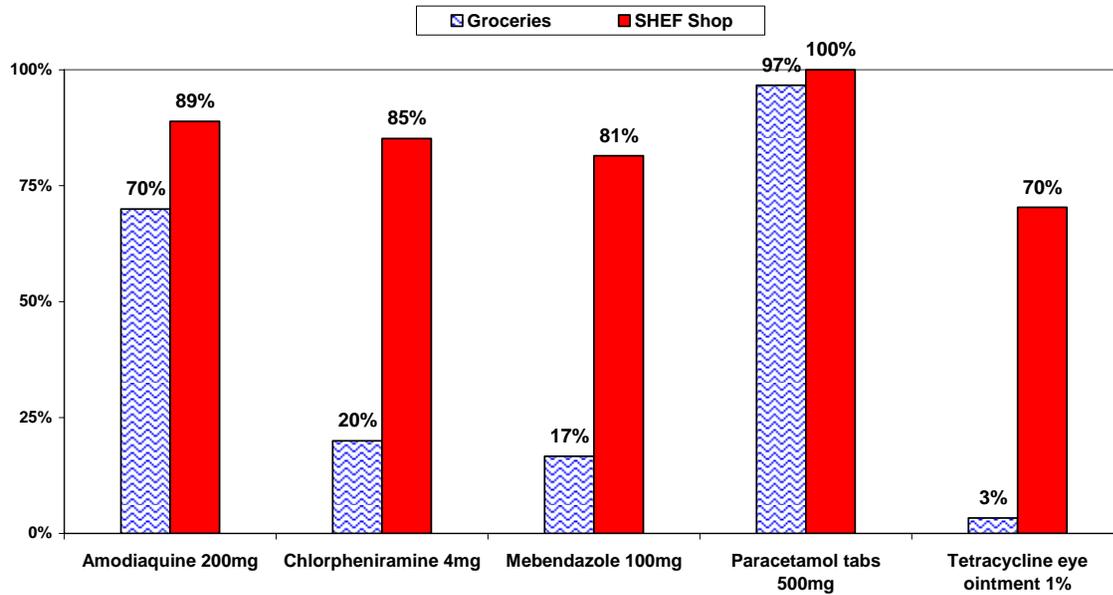
Tracer Item	Unit Size	Grocery Store (N = 30), %	SHEF Franchise (N = 27), %
Amodiaquine 200 mg	1 tablet	70	89
Amodiaquine 50 mg/ml		0	96
Artemether/lumefantrine (Coartem)	1 tablet	0	11
Chlorpheniramine 4 mg	1 tablet	20	85
Contraceptive pills (Femiplan)	1 pack	0	85
Cotrimoxazole 200/40 mg per 5 ml	100 ml bottle	0	63
Insecticide-treated bednets (green)	1 net	0	59
Mebendazole 100 mg	1 tablet	17	81
Mebendazole 100 mg/5ml	1L bottle	0	63
Metronidazole 200 mg/5ml	100 ml bottle	0	67
Metronidazole 400 mg	1 tablet	0	81
ORS	1 sachet/packet	0	74
Paracetamol syrup 120 mg/5 ml	1L bottle	0	93
Paracetamol tablets 500 mg	1 tablet	97	100
Salbutamol syrup 2 mg/5 ml	100 ml bottle	0	78

Tracer Item	Unit Size	Grocery Store (N = 30), %	SHEF Franchise (N = 27), %
Sulfadoxine-pyrimethamine 250/12.5 mg per 5ml	1 bottle	0	19
Sulfadoxine pyrimethamine 500/25 mg	1 tablet	0	67
Tetracycline eye ointment 1%	1 tube	3	70
Tinidazole 500 mg	1 tablet	0	81
Trihistamine syrup	5L bottle	0	78
Water purification chemical (Waterguard)	500 ml bottle	0	48
Average Availability of All Items		10	71

Comparison of Average Availability of All Tracer Items at Groceries and SHEF Franchises, August 2004



Comparison of Average Availability of Five Medicines Available in Both Groceries and SHEF Franchises, August 2004
Amodiaquine, Chlorpheniramine, Mebendazole, Paracetamol & Tetracycline Ointment



From satisfaction findings—

Question	Respondent Rating Scale	Grocery Store	SHEF
Did you get what you wanted?	Yes	86%	92%
	No	14%	8%
If Not, why?	Availability	9	3
	Referral		2
	Other	3	1
	Total number of reasons given for items not purchased	12	6

Affordability/Prices

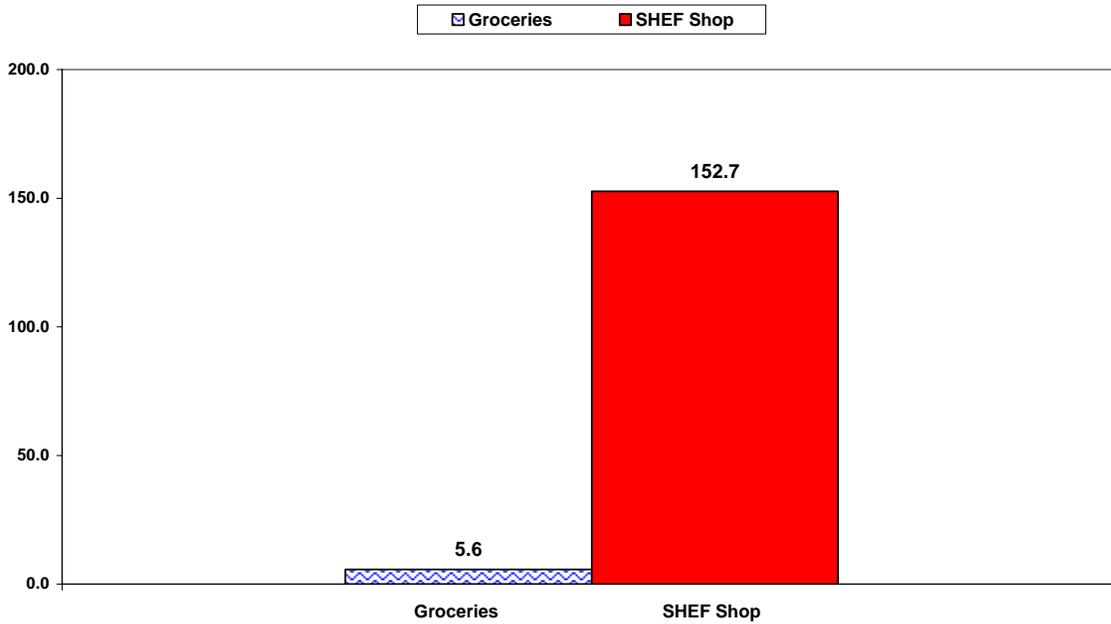
Price Research methods: See above Availability section. Used same data collection form for price and availability.

Price Findings

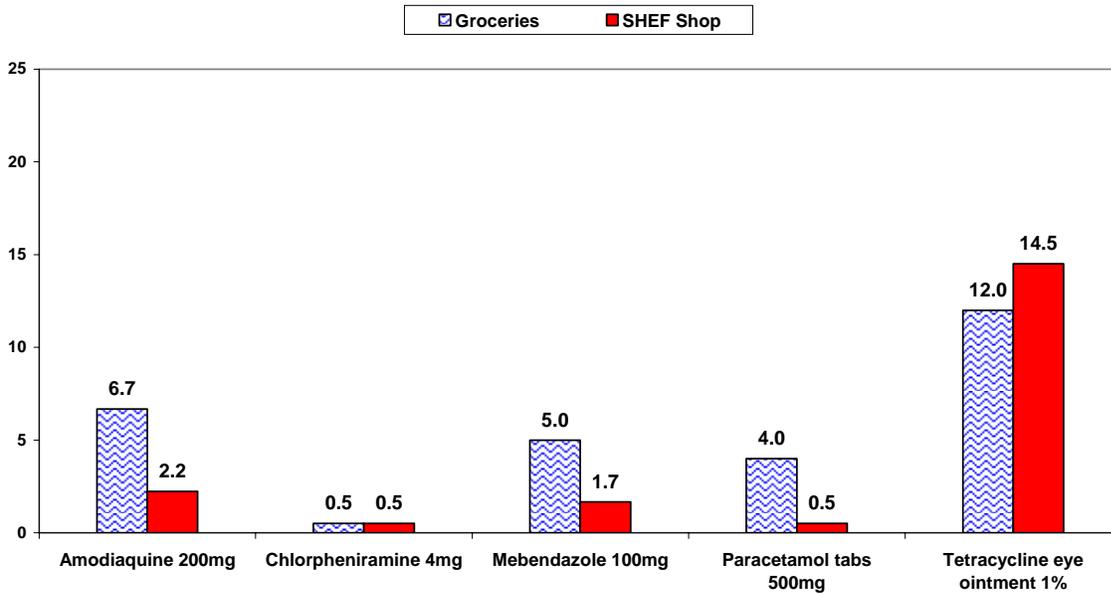
Median Unit Price (Shillings) of All Tracer Items in Groceries and SHEF Franchises, August 2004

Tracer Item	Unit Size	Grocery Store (N = 30)	SHEF Franchise (N = 27)
		Median	Median
Amodiaquine 200 mg	1 tablet	6.7	2.2
Amodiaquine 50 mg/ml			333.0
Artemether/lumefantrine (Coartem)	1 tablet		0.4
Chlorpheniramine 4 mg	1 tablet	0.5	0.5
Contraceptive pills (Femiplan)	1 pack		20.0
Cotrimoxazole 200/40 mg per 5 ml	100ml bottle		35.0
Insecticide-treated bednets (green)	1 net		200.0
Mebendazole 100 mg	1 tablet	5.0	1.7
Mebendazole 100 mg/5 ml	1L bottle		1000.0
Metronidazole 200 mg/5 ml	100ml bottle		40.0
Metronidazole 400 mg	1 tablet		1.0
ORS	1 sachet/packet		10.0
Paracetamol syrup 120 mg/5ml	1L bottle		200.0
Paracetamol tabs 500 mg	1 tablet	4.0	0.5
Salbutamol syrup 2 mg/5 ml	100ml bottle		50.0
Sulfadoxine pyrimethamine 250/12.5 mg per 5 ml	1 bottle		2.5
Sulfadoxine-pyrimethamine 500/25 mg	1 tablet		7.5
Tetracycline eye ointment 1%	1 tube	12.0	14.5
Tinidazole 500 mg	1 tablet		2.5
Trihistamine syrup	5L bottle		1250.0
Water purification chemical (Waterguard)	500 ml bottle		35.0
Average Median Price		5.6	152.7

Comparison of Average Median Unit Price (Shillings) of All Tracer Items at Groceries and SHEF Franchises, August 2004



Comparison of Median Unit Price (Shillings) of Five Medicines Available in Both Groceries and SHEF Franchises, August 2004
Amodiaquine, Chlorpheniramine, Mebendazole, Paracetamol & Tetracycline Ointment



Detailed Price Information, Groceries (Shillings)

Tracer Item	Unit Size	Average Price	Median Price	Max Price	Min Price	Count
Amodiaquine 200mg	1 tablet	6.4	6.7	10.0	2.2	22
Chlorpheniramine 4mg	1 tablet	0.5	0.5	0.5	0.5	6
Mebendazole 100mg	1 tablet	4.9	5.0	6.7	4.0	5
Paracetamol tabs 500mg	1 tablet	4.3	4.0	5.0	2.5	29
Tetracycline eye ointment 1%	1 tube	12.0	12.0	12.0	12.0	1

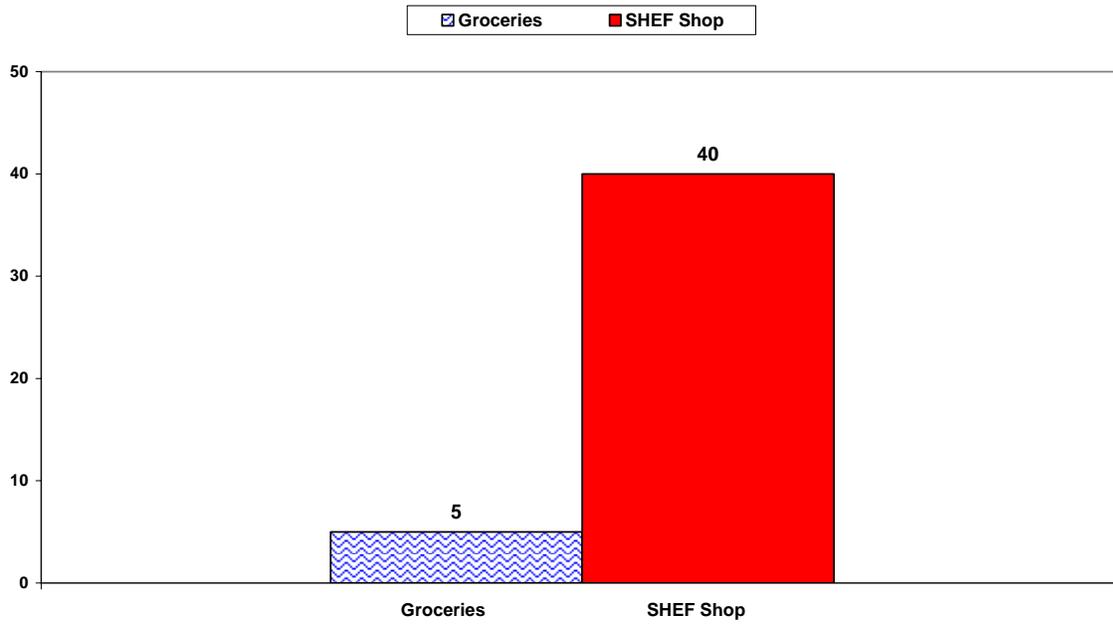
Detailed Price Information, SHEF Franchises (Shillings)

Tracer Item	Unit Size	Average Price	Median Price	Max Price	Min Price	Count
Amodiaquine 200 mg	1 tablet	2.3	2.2	3.3	2.2	24
Amodiaquine 50 mg/ml		339.5	333.0	500.0	200.0	26
Artemether/lumefantrine (Coartem)	1 tablet	0.4	0.4	0.5	0.3	2
Chlorpheniramine 4mg	1 tablet	0.5	0.5	2.5	0.3	22
Contraceptive pills (Femiplan)	1 pack	20.0	20.0	20.0	20.0	23
Cotrimoxazole 200/40mg per 5 ml	100ml bottle	36.0	35.0	83.0	20.0	18
Insecticide-treated bednets (green)	1 net	207.1	200.0	300.0	145.0	17
Mebendazole 100 mg	1 tablet	2.0	1.7	6.0	1.3	23
Mebendazole 100 mg/5 ml	1L bottle	880.2	1000.0	1167.0	500.0	18
Metronidazole 200 mg/5 ml	100 ml bottle	42.9	40.0	60.0	35.0	19
Metronidazole 400 mg	1 tablet	1.1	1.0	2.9	0.7	22
ORS	1 sachet/packet	9.0	10.0	10.0	6.0	20
Paracetamol syrup 120 mg/5 ml	1L bottle	224.0	200.0	400.0	200.0	25
Paracetamol tabs 500mg	1 tablet	0.6	0.5	1.5	0.5	27
Salbutamol syrup 2 mg/5ml	100 ml bottle	42.7	50.0	50.0	17.0	22
Sulfadoxine pyrimethamine 250/12.5 mg per 5 ml	1 bottle	2.9	2.5	5.0	1.5	5
Sulfadoxine pyrimethamine 500/25 mg	1 tablet	8.7	7.5	21.7	1.7	18
Tetracycline eye ointment 1%	1 tube	17.9	14.5	40.0	2.0	20
Tinidazole 500 mg	1 tablet	4.1	2.5	40.0	0.8	22
Trihistamine syrup	5L bottle	1318.2	1250.0	2500.0	1000.0	22
Water purification chemical (Waterguard)	500ml bottle	34.5	35.0	35.0	29.0	13

Comparison of Price per Treatment of Malaria (Shillings)

Price per Treatment	Grocery Store (N = 9)	SHEF Franchise (N = 23)
Median	5	40
Average	7	38
Max	20	92
Min	1	5

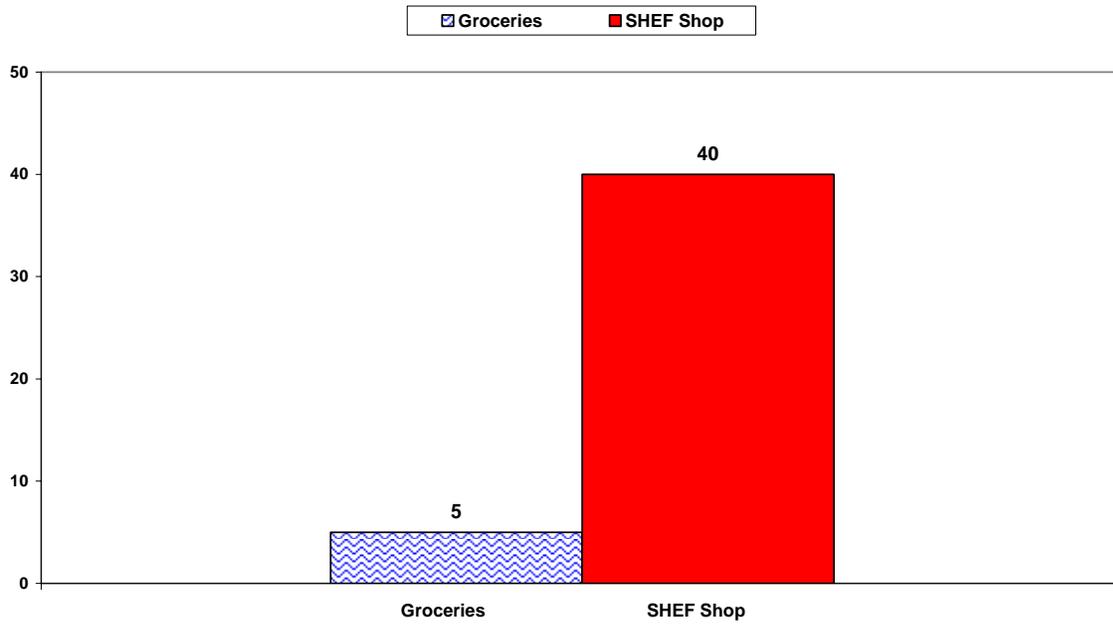
**Comparison of Results of Malaria Simulated Clients
Median Treatment Price Charged per Encounter
at Groceries and SHEF Franchises (in Shillings), August 2004**



Comparison of Price per Treatment of ARI (Shillings)

	Grocery Store (N = 5)	SHEF Franchise (N = 20)
Median	5	40
Average	133	43.9
Max	650	100
Min	1	5

Comparison of Results of URTI Simulated Clients Median Treatment Price Charged per Encounter at Groceries and SHEF Franchises (in Shillings), August 2004



From Satisfaction form—

Medicine Sale Characteristics

Grocery Client Responses: 7

SHEF Client Responses: 75

Indicates more clients visited SHEF franchises for medicine purchases.

Question	Respondent Rating Scale	Grocery Store	SHEF
The prices you paid for your DRUGS	Cheap	43%	43%
	Reasonable	57%	56%
	Expensive	0%	1%

Product Sale Characteristics

Grocery Client Responses: 84

SHEF Client Responses: 8

Indicates more clients visited Groceries for Non-medicine or other product purchases.

Question	Respondent Rating Scale	Grocery Store	SHEF
The prices you paid for the PRODUCTS you purchased	Cheap	22%	25%
	Reasonable	66%	63%
	Expensive	12%	13%

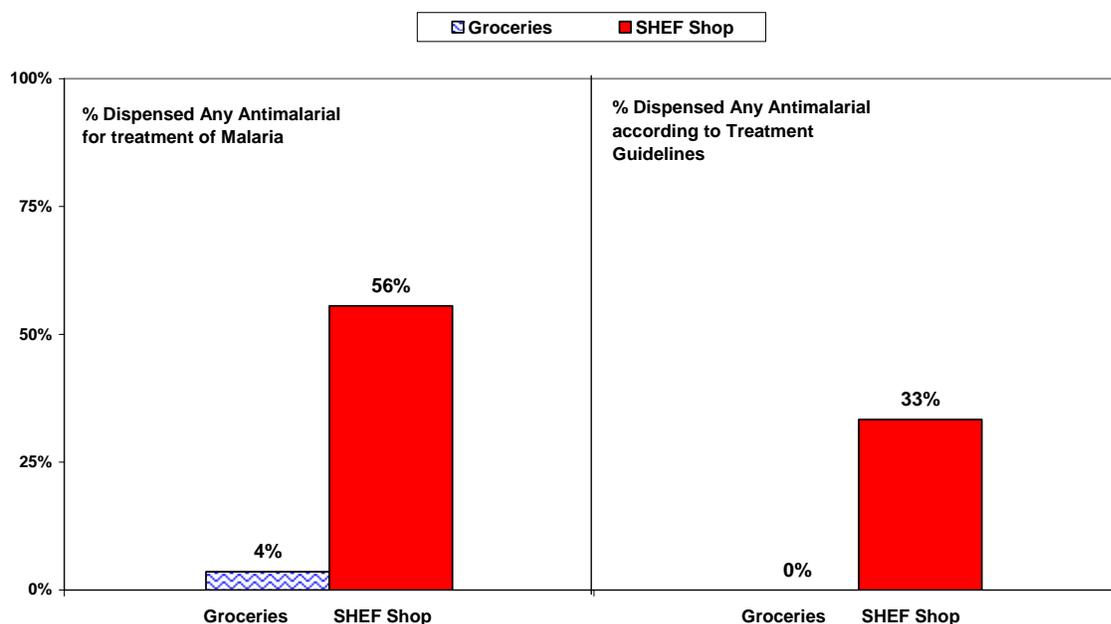
Quality of Services: Simulated Client Results

Malaria Findings

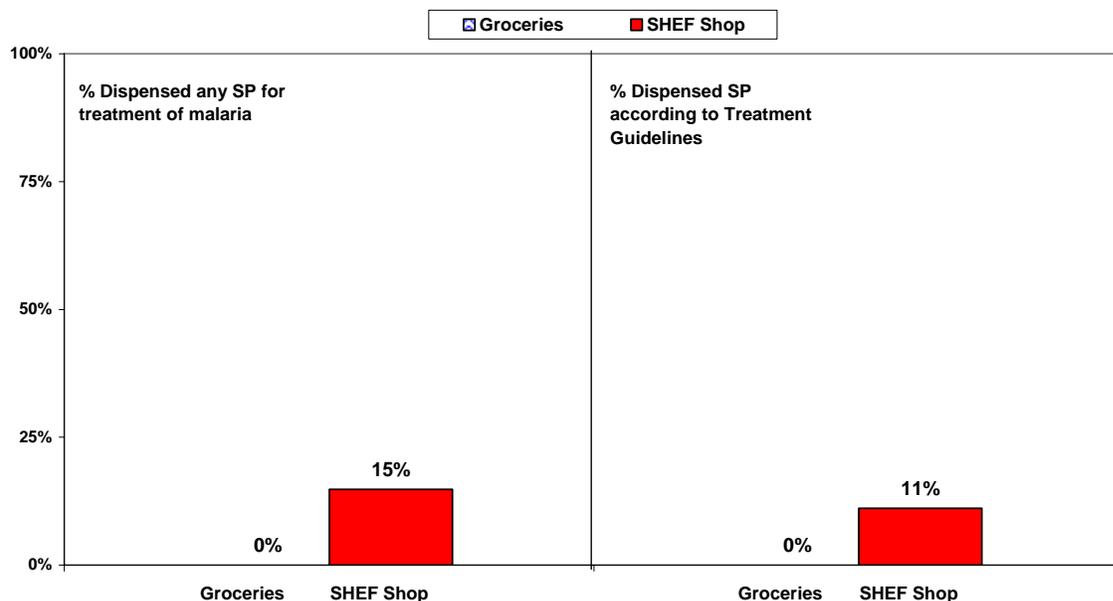
Comparison of Simulated Client Malaria Percent Dispensed Antimalarials at SHEF Franchises and Groceries

	Grocery Store (N = 28)	SHEF Franchise (N = 27)
Any antimalarial dispensed	4%	56%
According to Guidelines	0%	33%
Quantity is sufficient for a full dose	0%	56%
First line (SP) dispensed	0%	15%
According to Guidelines	0%	11%
Quantity sold is sufficient for a full dose	0%	15%
Second line (Amodiaquine) dispensed	4%	41%
According to Guidelines	0%	22%
Quantity sold is sufficient for a full dose	0%	41%

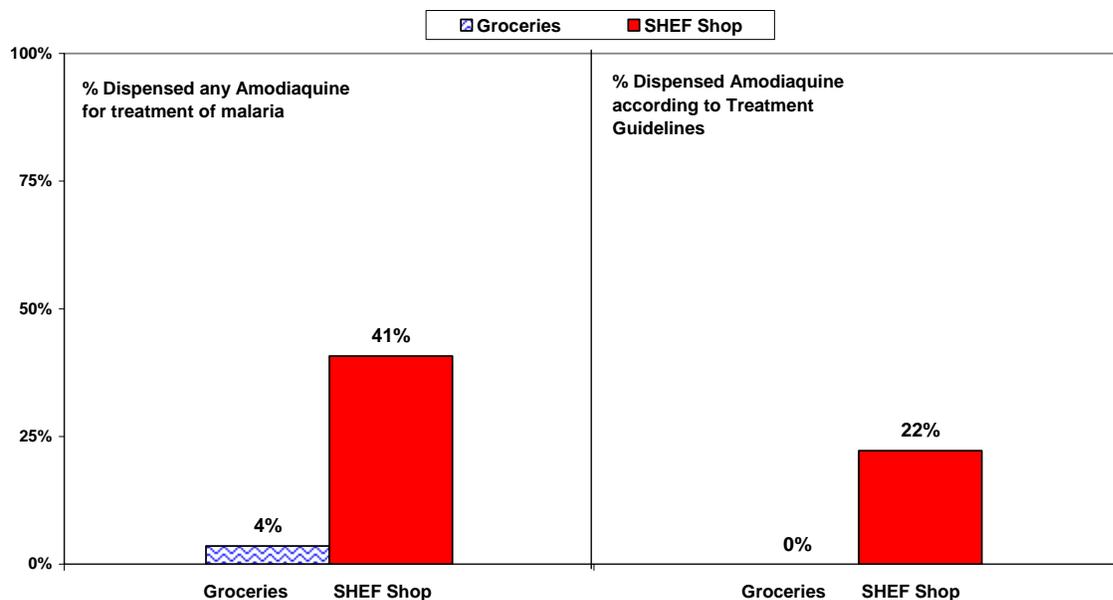
**Comparison of Results of Malaria Simulated Clients
% Facilities Dispensed Any Antimalarial and % Dispensed Any Antimalarial
According to Guidelines at Groceries and SHEF Franchises, August 2004**



**Comparison of Results of Malaria Simulated Clients
% Facilities Dispensed First Line Malaria Treatment (SP)
% Dispensed According to Guidelines
at Groceries and SHEF Franchises, August 2004**



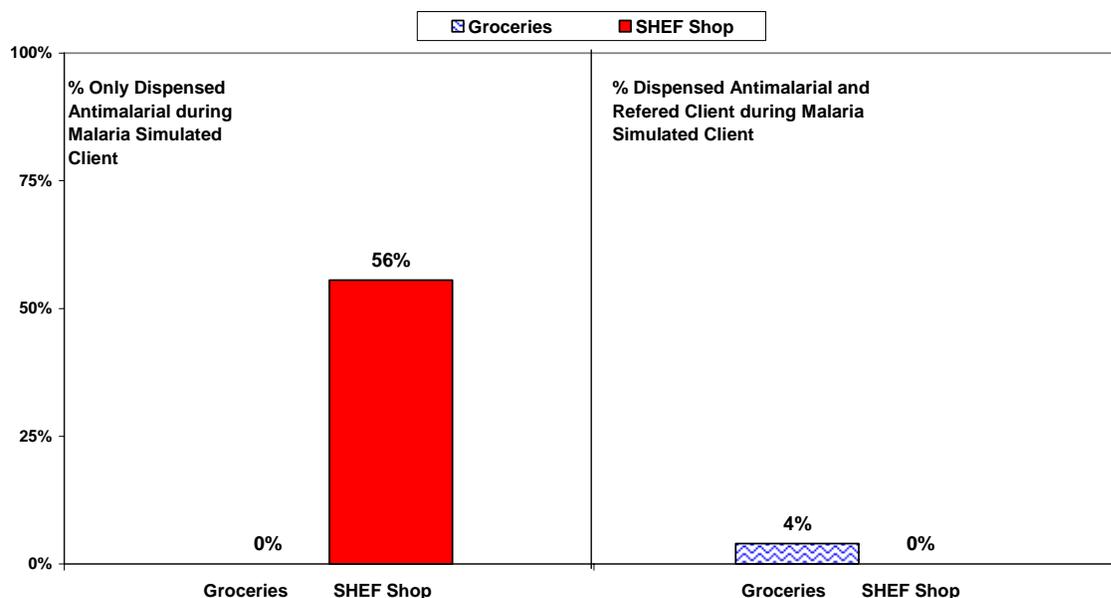
**Comparison of Results of Malaria Simulated Clients
% Facilities Dispensed Second Line Malaria Treatment (Amodiaquine)
% Dispensed According to Guidelines
at Groceries and SHEF Franchises, August 2004**



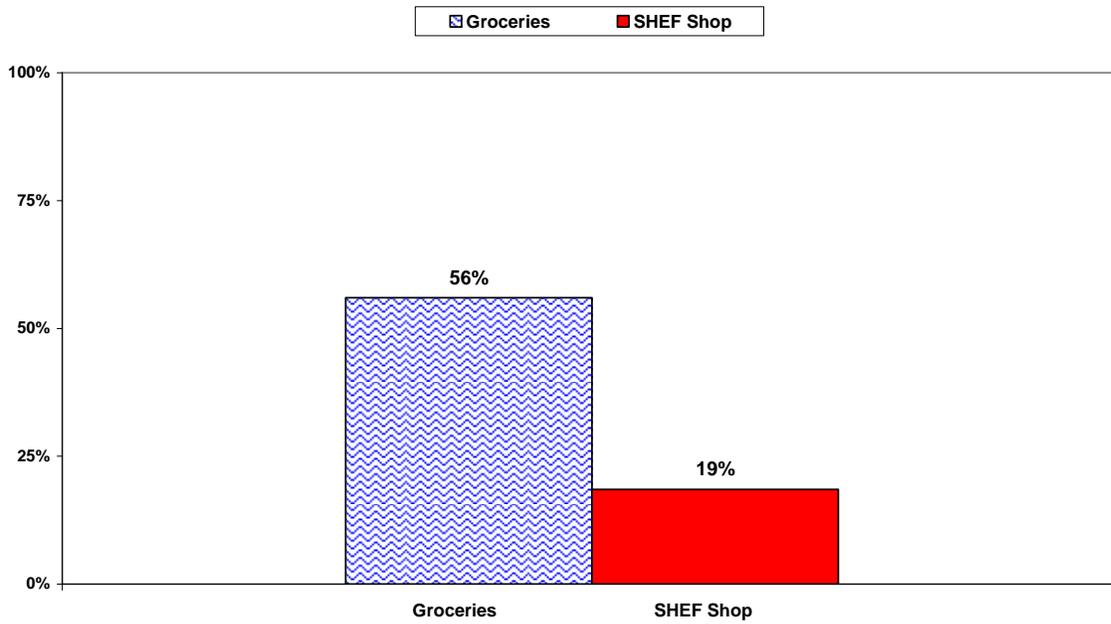
Comparison of Simulated Client Malaria Percent Dispensed Any Antimalarials and/or Referred at SHEF Franchises and Groceries

	Grocery Store (N = 25)	SHEF Franchise (N = 27)
Antimalarial and/or Referral		
Antimalarial only	0%	56%
Antimalarial and referral	4%	0%
Referral only	56%	19%
No antimalarial, no referral	40%	26%
Total	100%	100%

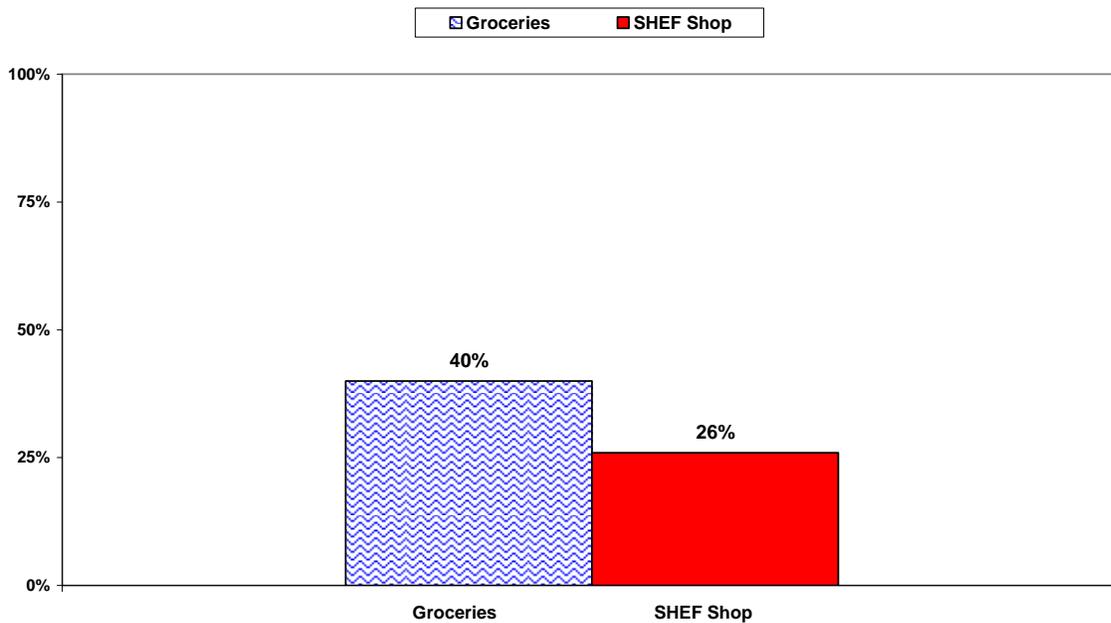
**Comparison of Results of Malaria Simulated Clients
% Facilities Only Dispensed Antimalarial
% Facilities Dispensed and Referred Simulated Clients
at Groceries and SHEF Franchises, August 2004**



**Comparison of Results of Malaria Simulated Clients
% Facilities Referred Simulated Clients at Groceries and SHEF Franchises,
August 2004**



**Comparison of Results of Malaria Simulated Clients
% Facilities That Did not Refer or Provide an Antimalarial to Simulated Clients at
Groceries and SHEF Franchises, August 2004**



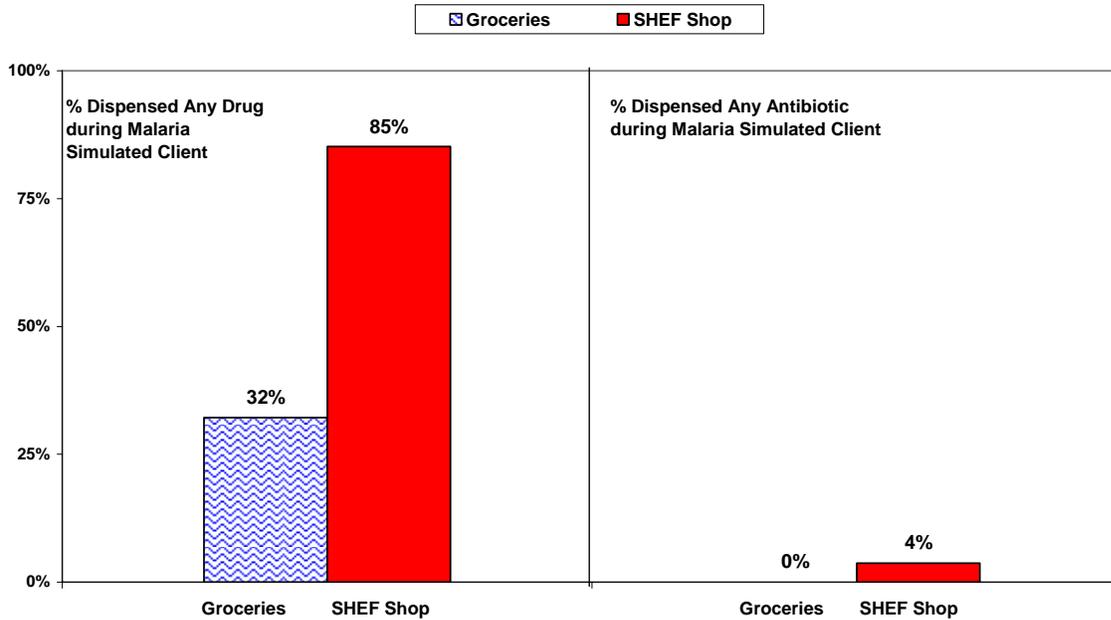
Comparison of Simulated Client Malaria Percent Dispensed Any Medicines and/or Referred at SHEF Franchises and Groceries

	Grocery Store (N = 25)	SHEF Franchise (N = 27)
Any Medicines dispensed	32%	85%
Medicine only	20%	78%
Medicine and Referral	16%	7%
Referral only	44%	11%
No medicine, no referral	20%	4%
Total	100%	100%

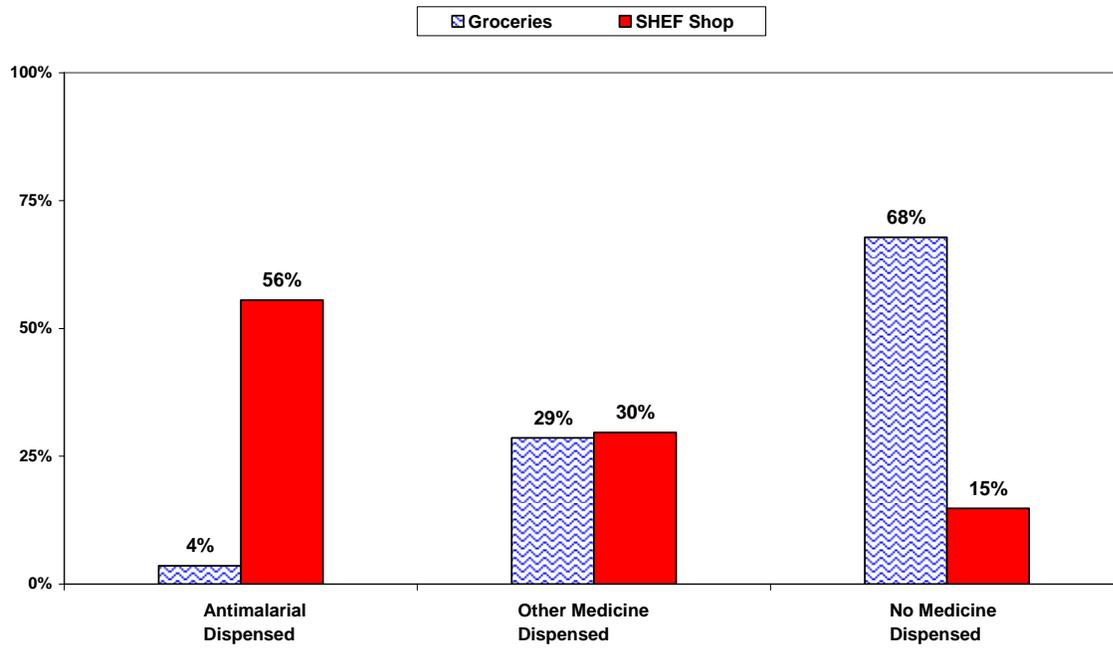
Simulated Client Malaria % of Facilities Visited that Prescribed Any Antibiotic

	Grocery Store (N = 28)	SHEF Franchise (N = 27)
Antibiotic dispensed	0%	4%

**Comparison of Results of Malaria Simulated Clients
% Facilities Dispensed Any Drug or Any Antibiotic at Groceries and SHEF Franchises, August 2004**



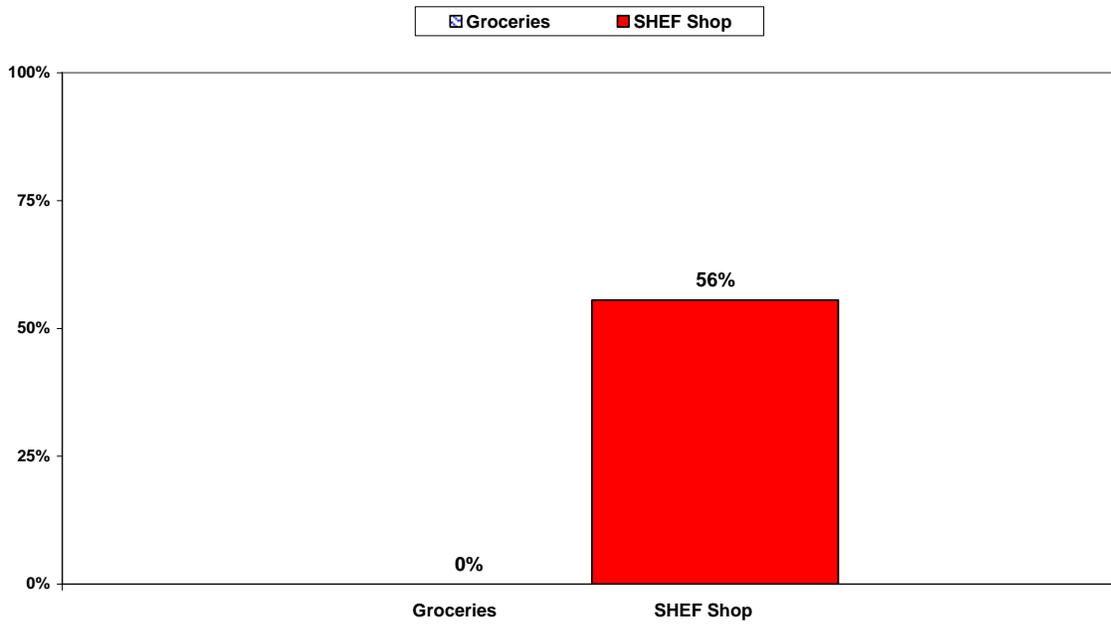
**Comparison of Results of Malaria Simulated Clients
% Facilities that Dispensed Antimalarials, Other Medicines, and No Medicines at
Groceries and SHEF Franchises, August 2004**



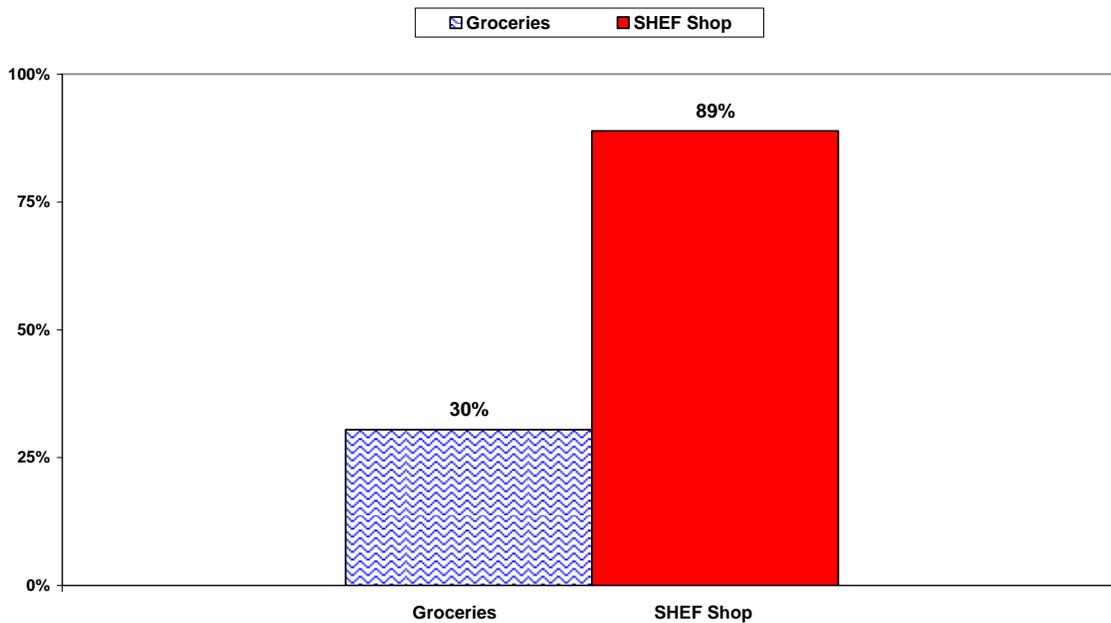
Malaria Dispensing Practices and Advice at SHEF Franchises and Groceries

	Grocery Store	SHEF Franchise
Questions		
Did the drug seller ask about the symptoms of the child?	39%	78%
Did the drug seller ask about any other medications the child may have taken?	0%	56%
Did the drug seller ask both of the above questions?	0%	56%
Instructions		
Did the drug seller give instructions on how to take the medications?	30%	89%
Did the drug seller give instructions on how to look for danger signs?	0%	15%
Referral		
Did the drug seller recommend referral to a doctor or a clinic?	60%	19%
Did the drug seller recommend referral to a doctor or a clinic if dangers signs arose?	13%	26%
Did the drug seller recommend returning if the symptoms did not get any better?	0%	41%

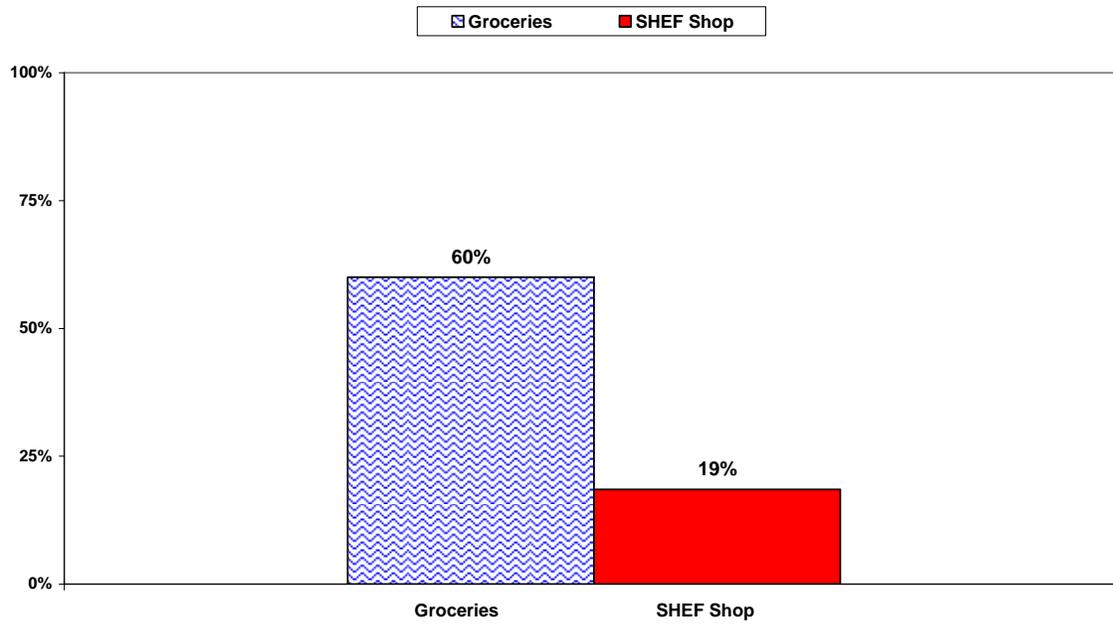
**Comparison of Results of Malaria Simulated Clients
Percent Clients Asked About Symptoms and Other Medications at Groceries
and SHEF Franchises, August 2004**



**Comparison of Results of Malaria Simulated Clients
Percent Clients Given Instructions on How to Take Medications at Groceries
and SHEF Franchises, August 2004**



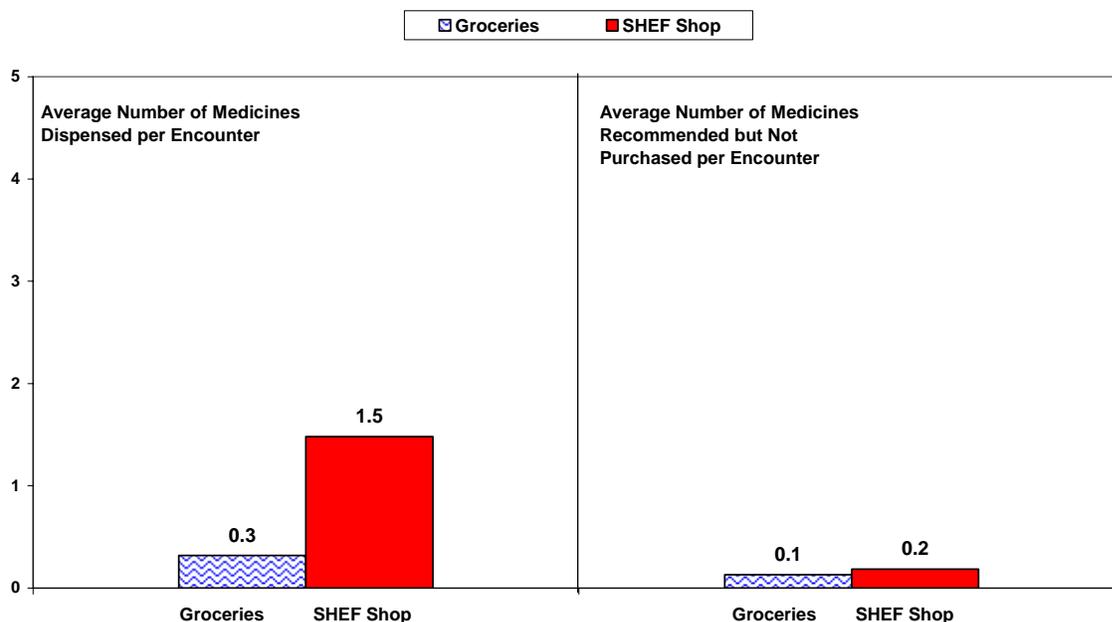
**Comparison of Results of Malaria Simulated Clients
Percent Clients Referred to a Doctor or Clinic
at Groceries and SHEF Franchises, August 2004**



Comparison of Average Number of Medicines Dispensed or Recommended per Malaria Encounter

	Grocery Store (N = 28)	SHEF Franchise (N = 27)
Average Number of Medicines Dispensed per Encounter	0.3	1.5
Average Number of Medicines Recommended but not Purchased per Encounter	0.1	0.2

**Comparison of Results of Malaria Simulated Clients
Average Number of Medicines Dispensed or Recommended per Encounter
at Groceries and SHEF Franchises, August 2004**

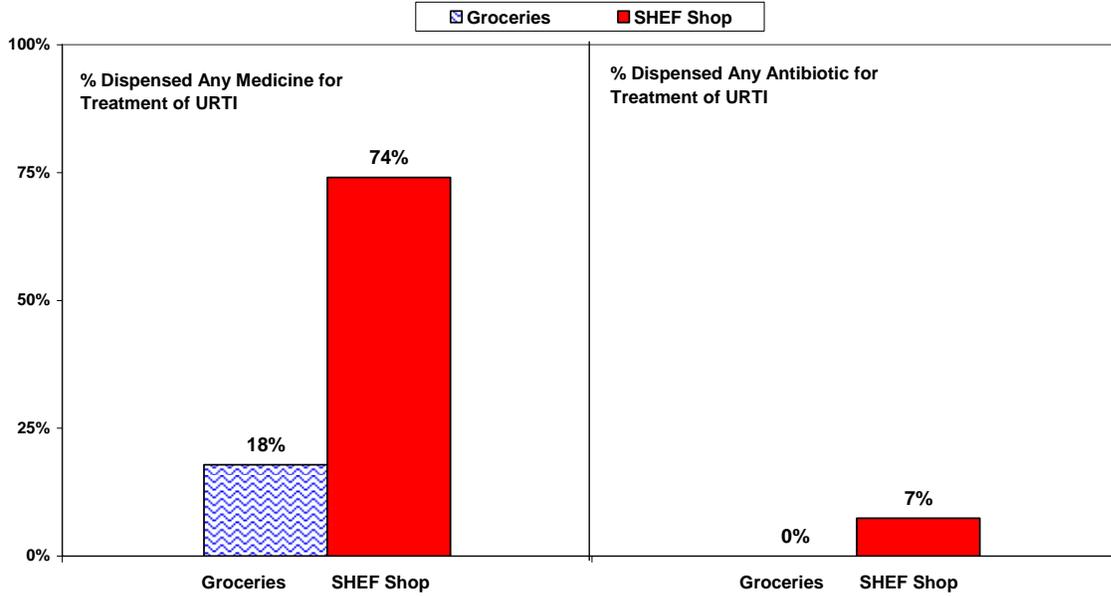


ARI Findings

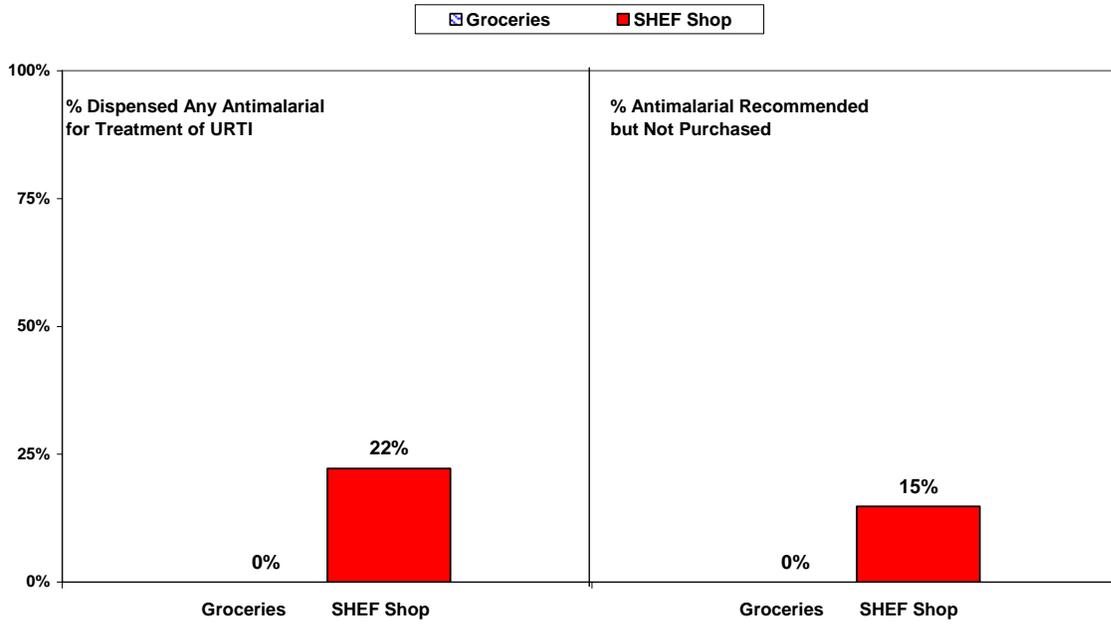
Percent Facilities where Any Medicine, Any Antibiotics or Any Antimalarials were Dispensed or Recommended for Treatment of URTI

	Grocery Store (N = 28)	SHEF Franchise (N = 27)
Any Medicines dispensed	18%	74%
Antibiotic dispensed	0%	7%
Antibiotic recommended but not purchased	0%	0%
Antimalarial dispensed	0%	22%
Antimalarial recommended but not purchased	0%	15%

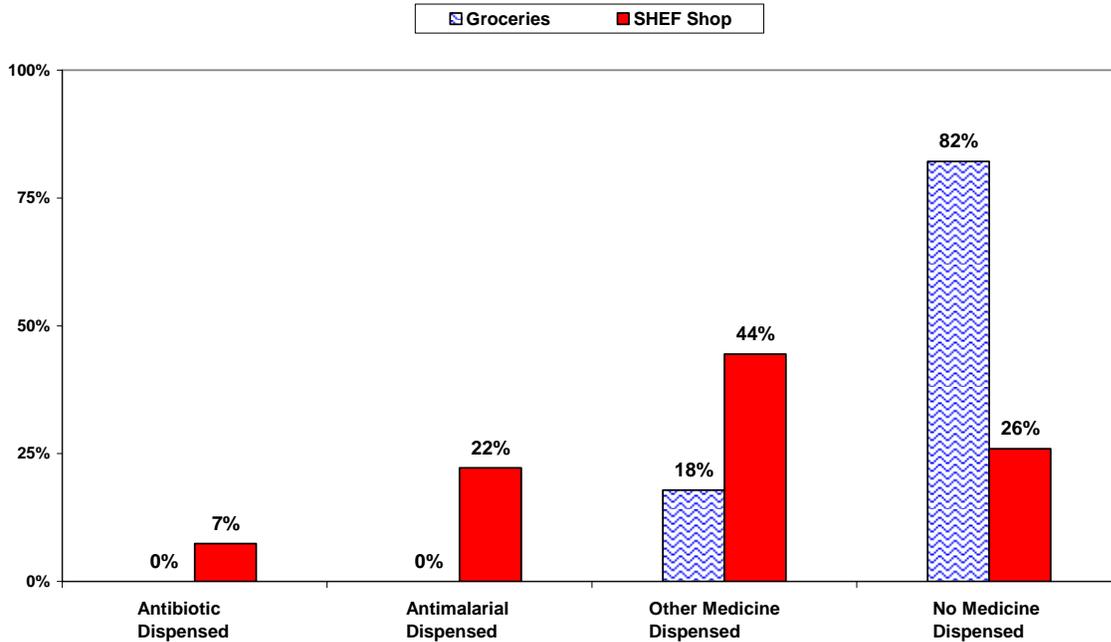
**Comparison of Results of URTI Simulated Clients
% Facilities Dispensed Any Medicine
% Dispensed Any Antibiotic
at Groceries and SHEF Franchises, August 2004**



**Comparison of Results of URTI Simulated Clients
% Facilities Dispensed or Recommended Any Antimalarial at Groceries and
SHEF Franchises, August 2004**



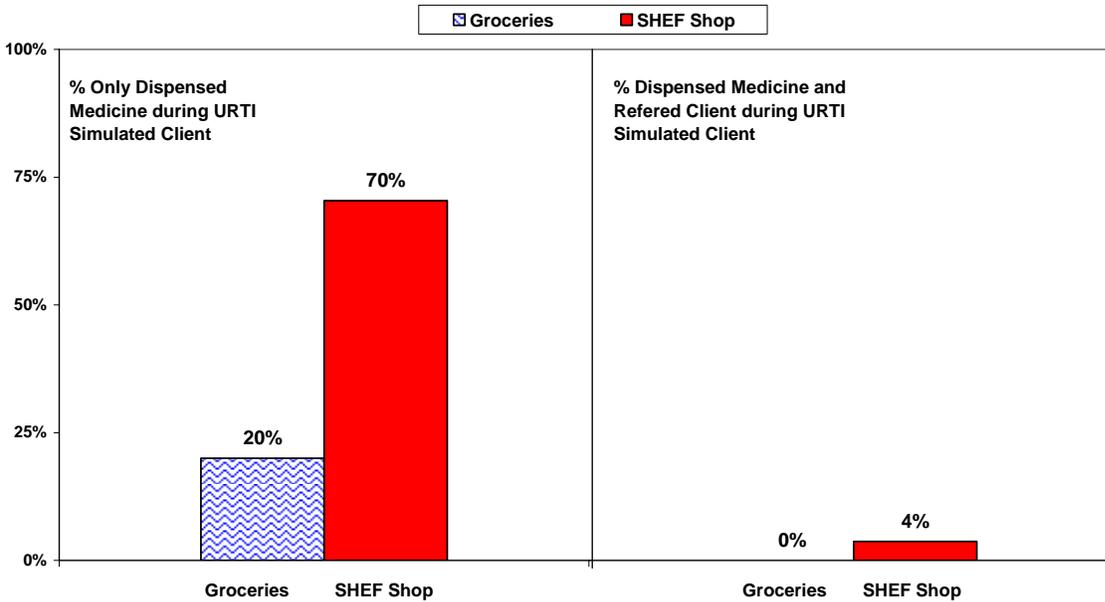
**Comparison of Results of URTI Simulated Clients
% Facilities that Dispensed Antibiotics, Antimalarials, Other Medicines, and No
Medicines at Groceries and SHEF Franchises, August 2004**



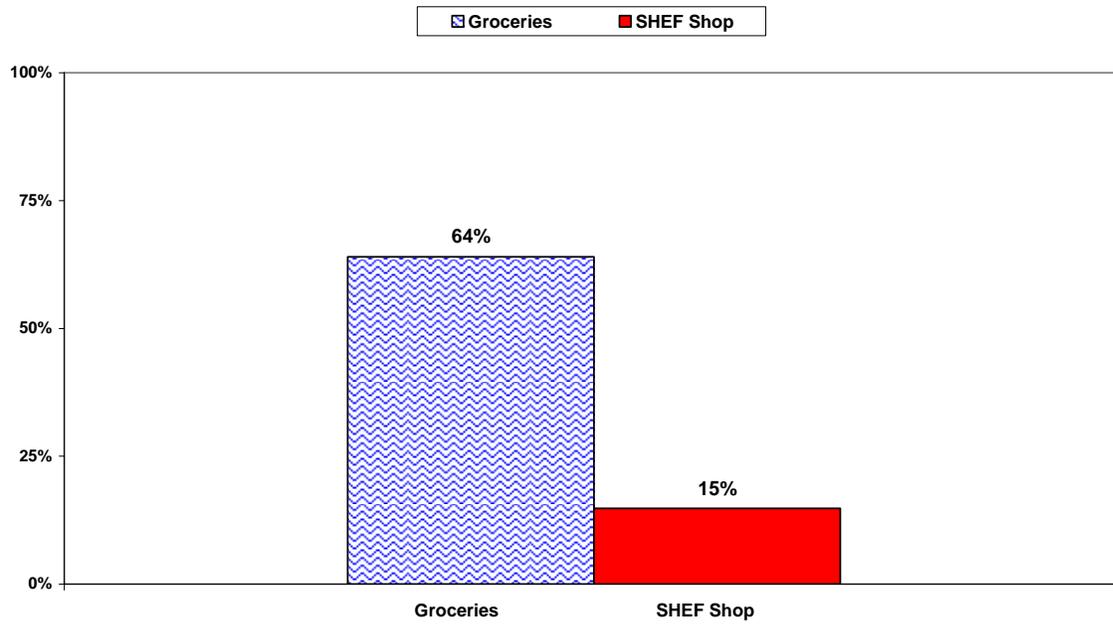
Comparison of Dispensing and Referral Practices for Treatment of URTI

	Grocery Store (N = 25)	SHEF Franchise (N = 27)
Medicine only	20%	70%
Medicine and Referral	0%	4%
Referral only	64%	15%
No medicine, no referral	16%	11%
Total	100%	100%

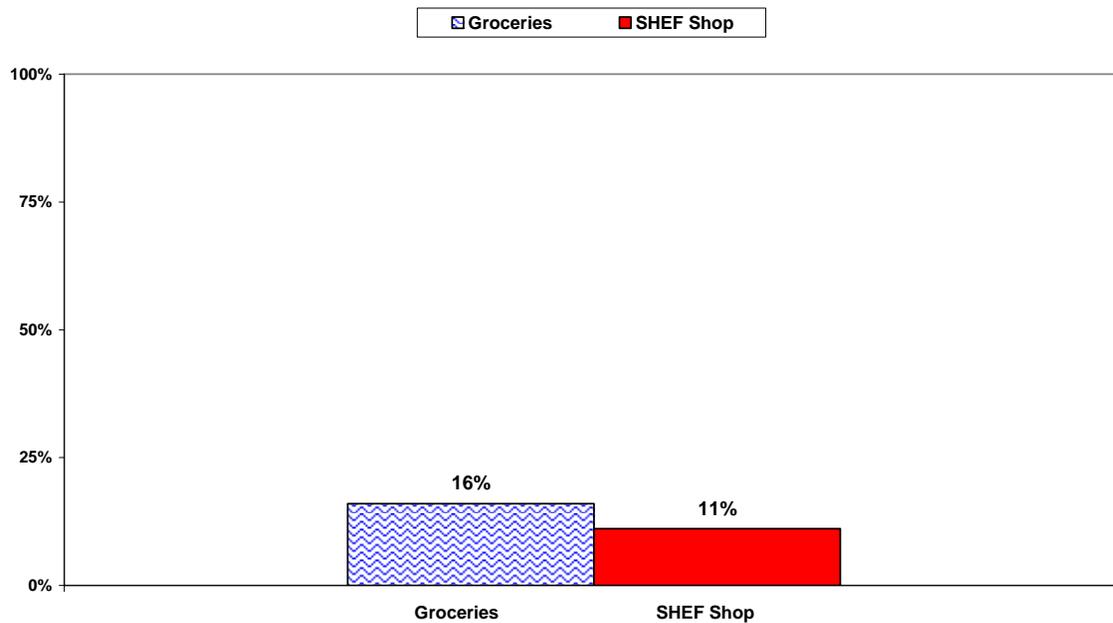
**Comparison of Results of URTI Simulated Clients
% Facilities Only Dispensed Medicine
% Facilities Dispensed and Referred Simulated Clients
at Groceries and SHEF Franchises, August 2004**



**Comparison of Results of URTI Simulated Clients
% Facilities Only Referred Simulated Clients at Groceries and SHEF Franchises,
August 2004**



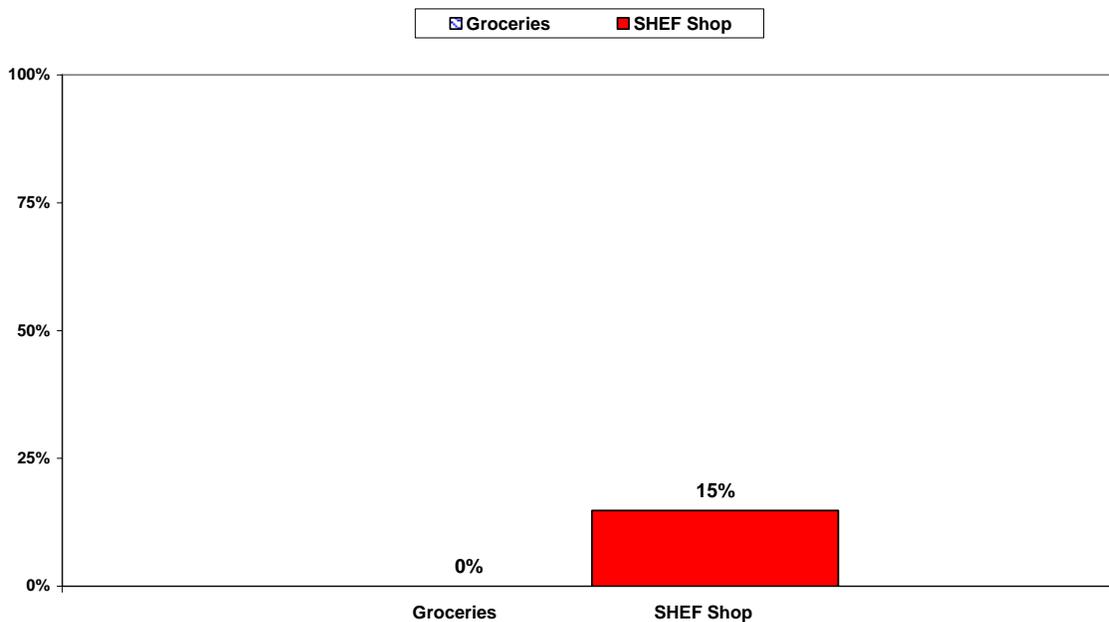
**Comparison of Results of URTI Simulated Clients
% Facilities That Did not Refer or Provide an Antimalarial to Simulated Clients at
Groceries and SHEF Franchises, August 2004**



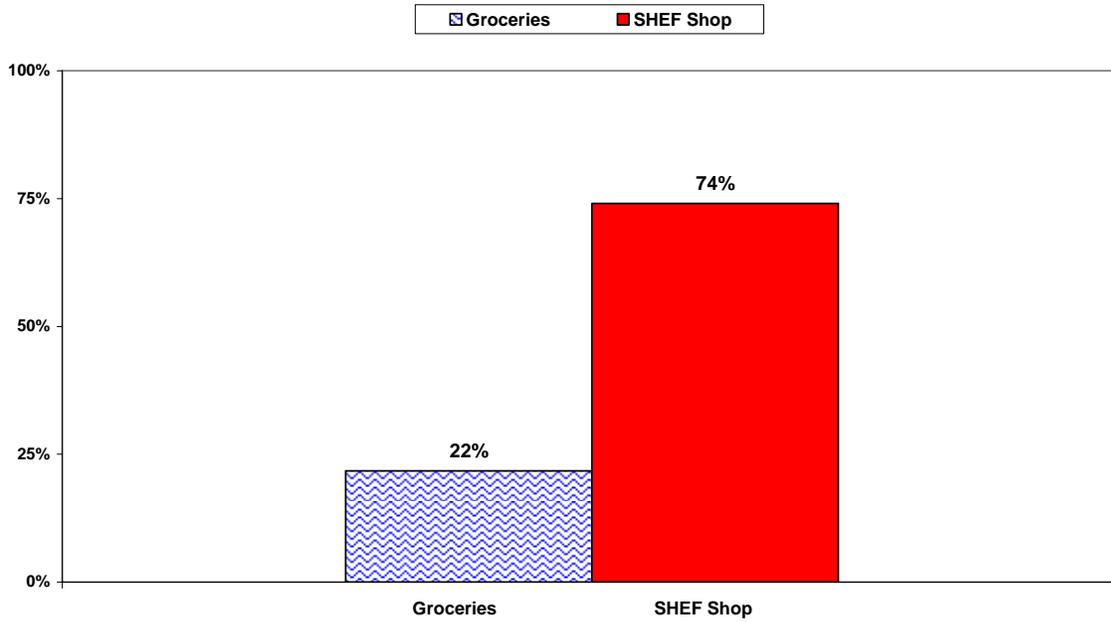
URTI Dispensing Practices and Advice, By Facility Type

	Grocery Store (N = 23)	SHEF Franchise (N = 27)
Symptoms		
Did the drug seller ask about the symptoms of the child?	26%	96%
Did the drug seller ask about any other medications the child may have taken?	0%	15%
Did the drug seller ask both of the above questions?	0%	15%
Instructions		
Did the drug seller give instructions on how to take the medications?	22%	74%
Did the drug seller give instructions on how to look for danger signs?	0%	23%
Referral		
Did the drug seller recommend referral to a doctor or clinic?	64%	19%
Did the drug seller recommend referral to a doctor or clinic if danger signs arose?	4%	15%
Did the drug seller recommend returning if the symptoms did not get better?	0%	33%

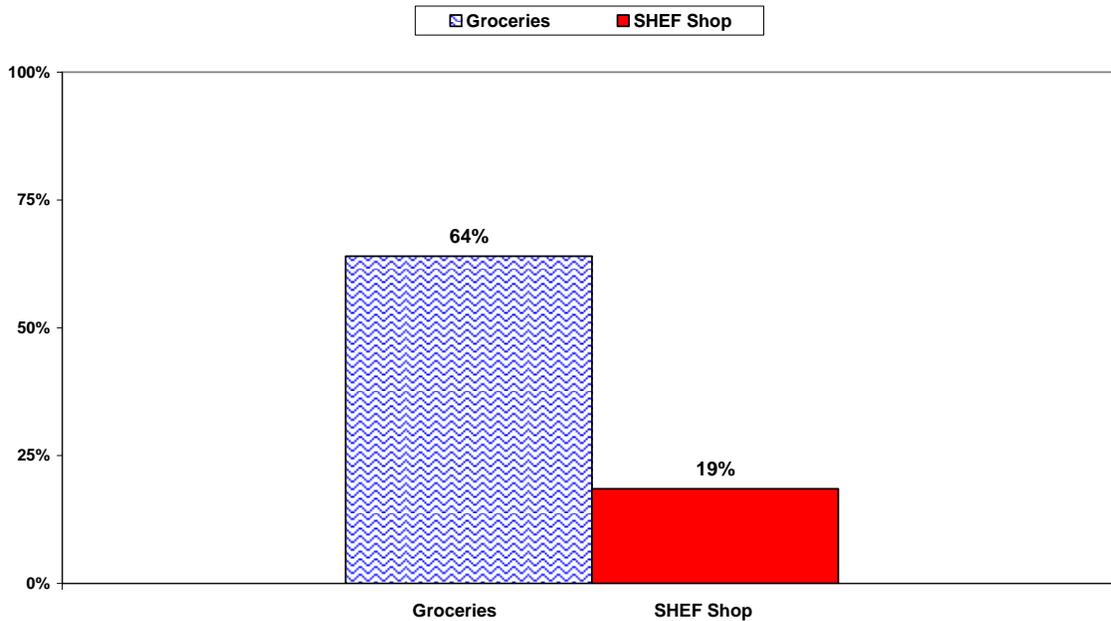
**Comparison of Results of URTI Simulated Clients
Percent Clients Asked About Symptoms and Other Medications at Groceries
and SHEF Franchises, August 2004**



**Comparison of Results of URTI Simulated Clients
Percent Clients Given Instructions on How to Take Medications
at Groceries and SHEF Franchises, August 2004**



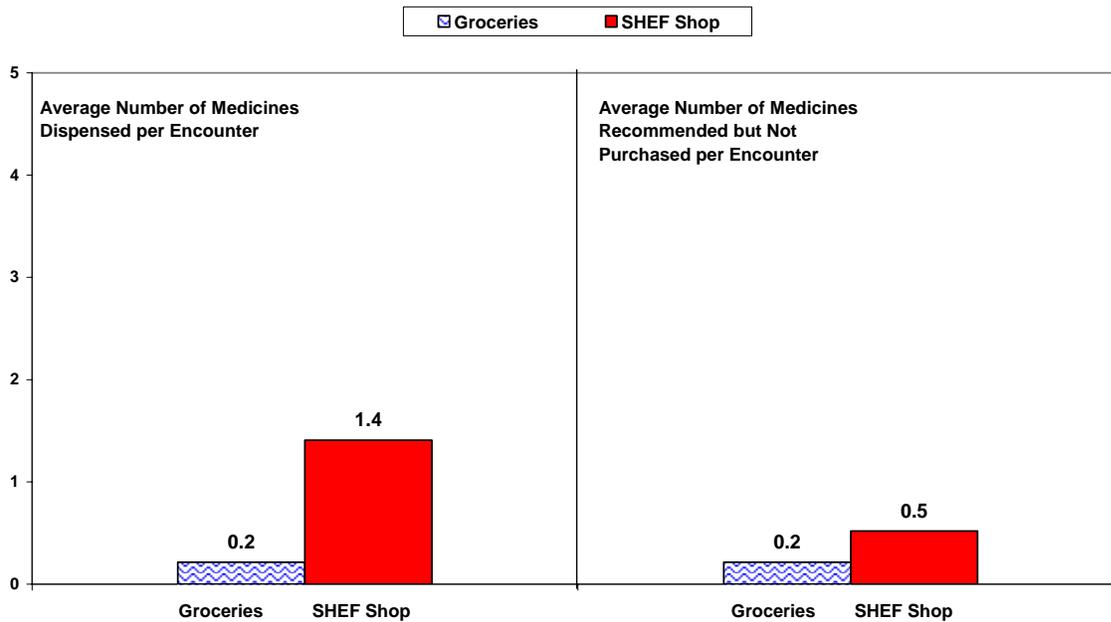
**Comparison of Results of URTI Simulated Clients
Percent Clients Referred to a Doctor or Clinic
at Groceries and SHEF Franchises, August 2004**



Comparison of Average Number of Medicines Dispensed or Recommended per URTI Encounter

	Grocery Store (N = 28)	SHEF Franchise (N = 27)
Average Number of Medicines Dispensed per Encounter	0.2	1.4
Average Number of Medicines Recommended but Not Purchased per Encounter	0.2	0.5

**Comparison of Results of URTI Simulated Clients
Average Number of Medicines Dispensed or Recommended per Encounter
at Groceries and SHEF Franchises, August 2004**



From satisfaction form—

Medicine Sale Characteristics

Grocery Client Responses: 7

SHEF Client Responses: 75

Indicates more clients visited SHEF franchises for medicine purchases.

Question	Respondent Rating Scale	Grocery Store	SHEF
Were you given any information or instructions on the use of the medicines you purchased?	Yes	17%	93%
	No	83%	7%
How would you rate the information you got about the DRUGS you purchased?	Poor	0%	4%
	Good	100%	55%
	Excellent	0%	41%

Product Sale Characteristics

Grocery Client Responses: 84

SHEF Client Responses: 8

Indicates more clients visited grocery stores for non-medicine or other product purchases.

Question	Respondent Rating Scale	Grocery Store	SHEF
Were you given any information or instructions regarding the products you purchased?	Yes	5%	83%
	No	95%	17%
Was the information you were given about the PRODUCTS you purchased	Poor	0%	0%
	Good	100%	60%
	Excellent	0%	40%

Satisfaction Findings

General Client and Shop Information

Question	Respondent Rating Scale	Grocery Store	SHEF
How often do you come to this shop?	First time	5%	15%
	Occasionally	30%	45%
	Many times	65%	40%
The physical appearance of the store	Poor	3%	1%
	Good	70%	64%
	Excellent	27%	35%

Service Characteristics

Question	Respondent Rating Scale	Grocery Store	SHEF
The knowledge and expertise of the dispenser	Poor	0%	0%
	Good	72%	33%
	Excellent	28%	67%
The way the dispenser spoke with you	Poor	0%	0%
	Good	50%	30%
	Excellent	50%	70%

Overall Shop Satisfaction Comments

Question	Respondent Rating Scale	Grocery Store	SHEF
How would you describe your satisfaction with your whole experience?	Poor	1%	0%
	Good	63%	60%
	Excellent	36%	40%
Have you ever had any problems with this store?	Yes	5%	6%
	No	95%	94%