REPORT ON CONSUMPTION AND QUANTIFICATION OF MODERN DRUGS FOR HUMAN USE IN NEPAL

Submitted to Department of Drug Administration (DDA) Bijulibazar, Kathmandu

Submitted by

Pharmaceutical Horizon of Nepal (PHON) Kathmandu July, 2001

TABLE OF CONTENTS

Ac	knowledgements	i
Ex	ecutive Summary	ii
1.	BACKGROUND	1
2.	OBJECTIVES	1
3.	SIGNIFICANCE OF THE STUDY	1
4.	METHODOLOGY	2
	4.1. Data Source	
	4.2. Sampling	
	4.3. Data Collection	
	4.4 Data Analysis	
5.	RESULTS	10
6.	RECOMMENDATIONS	19
7.	CONCLUSION	19
8.	REFERENCES	20
9.	ANNEXES	
	I. List of Importers	21
	II. Questionnaires (I-V)	26-30

Acknowledgements

We are grateful to the Department of Drug Administration (DDA), Ministry of Health for

providing opportunity to conduct this study. We would like to express our sincere thanks

to Dr.Asfaq Sheak, Chief Drug Administrator for his valuable suggestions. Thanks are

also due to Mr.Deen Dayal Bhattarai, Senior Drug Administrator for taking keen interest

in accomplishing this study.

We also express thanks to government institutions, supervisors, research assistants,

Nepalese pharmaceutical manufacturers, drug importers, drug retailers, NGO's and

INGO's for their co-operation in data collection.

We also thank Mr.Arjun Pandey, statistician, Institute of Medicine for assisting in

sampling and data analysis.

Last but not least, we would like to thank Mr.Piyush Humangain for assisting computer

work.

July 2001

Prof.K.K.Kafle

Principal Investigator

1. BACKGROUND

In 1979, the importation of drugs was estimated to be worth Rs.114.6 millions and there were only about 400 medical shops. According to another study conducted in 1988 the importation of drug was Rs.385 million. Subsequent study in 1992 showed drugs consumption worth Rs.1532 million (sales value). At present there are about 11,000 drug retailers and wholesalers in the country. Though the pharmaceutical industries started in seventies, increase of industries began in the eighties. At present, there are about 35 pharmaceutical industries in operation in Nepal.

Quantification of drugs is normally appropriate for forecasting large scale procurement, estimating budget requirements, forecasting new programs, forecasting for assistance projects, estimating drug requirements in emergency relief situation.

Drugs are one of the important components in the delivery of health care. For effective drug management a proper selection, quantification, procurement, distribution and use are important.

2. OBJECTIVES

The general objective of the study was to estimate the national consumption of modern drugs as well as to identify and quantify some selected drugs. The specific objectives of this study were to:

- estimate the value of imported drugs
- estimate the value of local production
- estimate the value of drugs procured by MOH
- estimate the value of drugs procured by INGO's and NGO's.
- estimate the retail sale value of imported and local productions
- identify and quantify top fifteen selling drugs.

3. SIGNIFICANCE OF THE STUDY

Estimating the current national consumption of allopathic drugs has generated data which can serve a basis for planning an effective drug management as well as making self-reliant drug production through the national industries.

4. METHODOLOGY

The study covered fiscal year 2056/57 (1999/2000) and data was collected from following sources:

4.1. Data Source

- Private importers
- Central level hospital importing drugs (T.U.Teaching Hospital)
- UN Agencies / International Agencies / NGOs / INGOs
- Drug retailers
- Domestic drug manufacturing and repacking industries.
- Custom points
- Divisions of Department of Health Services including Logistic Management Division (LMD).
- Regional Medical Stores
- Regional and Zonal Hospitals.

4.2. Sampling

The tables I to IV show sampled custom points, drug manufacturers including repackaging industries, regional medical stores, and central, regional and zonal hospitals. The list of importers is Annexed (Annex I). Data were also collected from divisions of Department of Health Services including Logistic Management Division. Similarly, data were also collected from retailers.

Table I: Sampled Custom Points

1. Kakarvita	2. Biratnagar	3. Kunauli (Rajbiraj)
4. Madar (Siraha)	5. Janakpur	6. Kathmandu
7. Jaleswor	8. Birgunj	9. Krishnanagar
10. Tatopani	11. Bhairahawa	12. Nepalgunj
13. Dhangadi	14. Mahendranagar	

The data were collected from 14 custom points.

Table II: Domestic Drug Manufacturers and Repackaging Industries

Name of manufacturer **Address** 1. Ace Laboratories Ltd Simara, Birgunj 2. Amie laboratories Pvt. Ltd. Janakpur 3. Apex Pharmaceuticals Pvt. Ltd Birguni 4. Arya Pharmalab Pvt. Ltd Birguni 5. Asian Pharmaceuticals Pvt. Ltd Bhairahawa 6. Birat Pharmalab Pvt. Ltd Biratnagar 7. Chemidrug Industries Kathmandu 8. CTL Pharmaceuticals Pvt. Ltd Bhaktapur 9. Curex Pharmaceuticals Pvt. Ltd Janagal, Kavre 10. Danium Laboratories Pvt. Ltd Birgunj 11. Deurali-Janata Pharmaceuticals Pvt. Ltd Kathmandu 12. Everest Pharmaceuticals Pvt. Ltd Kathmandu 13. GD Pharmaceuticals Pvt. Ltd Birgunj 14. Hukam Pharmaceuticals (Including HMR products) Bhaktapur 15. Lomus Pharmaceuticals Pvt. Ltd. Kathmandu 16. Manoj Pharmaceuticals Pvt. Ltd Dharan 17. Milan Pharmaceuticals Pvt. Ltd Biratnagar 18. National Healthcare Pvt. Ltd. Birgunj 19. Nepal Pharmaceuticals Lab Pvt. Ltd Jitpur, Birgunj 20. Pearlchem Industries (Repacking) Birguni 21. Pharmaceutical Company of Nepal Pvt. Ltd Kalaiya, Bara 22. Pharmaco Industries Pvt. Ltd Kathmandu 23. Raj Chemical Works (Repacking) Pvt. Ltd Damak, Jhapa 24. Redox Pharmaceuticals Pvt. Ltd Sanga, Kavre 25. Royal Drugs Limited Kathmandu 26. Shiv Pharmaceuticals Lab Pvt. Ltd Dharan 27. Shree Ram Pharmaceuticals (Repacking) Birguni 28. Siddhartha Pharmaceuticals Pvt. Ltd Bhairahawa 29. Simca Laboratories Pvt. Ltd Bhaktapur

Nawalparasi

30. Time Pharmaceuticals Pvt. Ltd

The data were collected from 31 domestic manufacturing and repacking industries.

Table III: Regional Medical Stores

Address
Biratnagar
Hetauda
Butwal
Nepalgunj
Dhangadhi

The study included all five regional medical stores.

Table IV: Sampled Central, Regional and Zonal Hospitals

Name of Hospital	District
Bir Hospital	Kathmandu
TU Teaching Hospital	Kathmandu
Kanti Children Hospital	Kathmandu
Maternity Hospital	Kathmandu
Bhaktapur Hospital	Bhaktapur
Teku Hospital	Kathmandu
Bharatpur Hospital	Chitwan
Mental Hospital	Kathmandu
Lumbini Zonal Hospital	Rupandehi
Seti Zonal Hospital	Kailali
Mahakali Zonal Hospital	Kanchanpur
Koshi Regional Hospital	Morang
Janakpur Zonal Hospital	Dhanusa
Sagarmatha Zonal Hospital	Saptari
Narayani Sub-Regional Hospital	Parsa

The sample included central, regional and zonal hospitals.

For sampling drug retailers, each of the five development regions of the country was stratified into three strata namely mountain, hill and terai districts. A district from

each stratum was randomly selected making 15 sampled districts. (Table V). In addition, custom point districts if not sampled were also included for sampling retailers. The custom point districts included **Jhapa**, **Dhanusa**, **Mahottari**, **Kathmandu**, **Sindhupalchowk**, **Parsa**, **Rupandehi**, **Kapilbastu**, and **Kanchanpur**.

Table V: Sampled Retailers by Strata, Custom Points and Potential Markets

Regio	n Mountain	n Hill	Terai Custom	Points	Purposely Samp	oled
Ea	stern	Taplejung	Dhankuta	Morang	Jhapa	
Ce	entral	Dolkha	Makawanpur	Chitwan	Dhanusa	Lalitpur
					Mahottari	Bhaktapur
					Kathmandu	
					Sindhupalchowk	ζ
					Parsa	
W	estern	Mustang	Palpa	Nawalparasi	Rupandehi	Kaski
					Kapilbastu	
Mi	id-Westerr	Jumla	Surkhet	Banke		
Fa	r-Western	Darchula	Baitadi	Kailali	Kanchanpur	

The sampled districts from Mountain region were: Taplejung, Dolakha, Mustang, Jumla and Darchula

The sampled districts from Hill region included: **Dhankuta**, **Makawanpur**, **Palpa**, **Surkhet and Baitadi**

The Sampled districts from Terai region included: Morang, Chitwan, Nawalparasi, Banke and Kailali

Moreover, retailers from Lalitpur, Bhaktapur and Kaski districts were also included.

Ten percent of drug retailers from each of the sampled districts were randomly selected making 1,008 retailers from sampled districts. This figure makes 10% of the total retailers population of the country (Table VI). The list of drug retailers from the Department of Drug Administration was used for sampling the drug retailers from the districts.

Table VI: Sampled Drug Retailers from Selected Districts

Districts	No of registered retailers	Sampled retailers
Baitadi	64	5
nke 291 48		
Bhaktapur	147	17
Chitwan	308	59
Darchula	20	2
Dhankuta	43	15
Dolakha	36	12
Dhanusa	430	60
Jhapa	530	53
Jumla	15	7
Kailali	417	44
Kanchanpur	198	28
Kapilbastu	216	26
Kaski	335	38
Kathmandu	1399	149
Lalitpur	268	35
Mahottari	298	40
Makawanpur	126	20
Morang	500	92
Mustang	2	1
Nawalparasi	228	23
Palpa	98	20
Parsa	398	48
Rupandehi	523	72
Saptari	346	59
Sindhup alchowk	67	13
Surkhet	124	21
Taplejung	10	4
Total	7437	1008

4.3. Data Collection

The data were collected by using instruments (Annex II, III, IV, V, VI). The instruments were field-tested in Kathmandu involving the research assistants and supervisors. Prior to the field testing, the research team was oriented by the investigators. The research assistants were undergraduate students from health sciences. The supervisors were graduates from health sciences.

4.3.1 Data collection from domestic manufacturers included

- Quantity produced
- Quantity expired
- Quantity returned to manufacturer
- Quantity sold
- Selling price of each unit
- Stock from previous year 2055/56
- Closing balance
- Quantity of physician samples
- Quantity of free drugs or bonus
- Wholesale commission

4.3.2. Data collection from importers included

- Stock from previous year
- Import and total quantity sold
- Balance at the end of the fiscal year
- Average percentage of expiry drugs
- Total percent of free goods
- Top fifteen selling drugs
- Commission to the stockist.

4.3.3. Data collection from the custom points included

- Amount on the Custom Clearance Form (*Pragyapan Patra*)
- 4.3.4. Data collection from the Department of Health Services and hospitals included

- Total amount procured
- Total import value

4.3.5. UN agencies / International agencies / INGOs / NGOs included

• Total amount imported for their own use or supply to the government

4.3.6. Data collection from the drug retailers included

- Total sale
- Value of expired drugs
- Average daily sale in the summer
- Average daily sale in the winter

4.4. Data Analysis

The data from each unit were entered into Excel and analysed for the followings

4.4.1. Data from importers

- ♦ Total import value
- ♦ Total sales value
- ♦ Total Bonus/Free goods value
- ♦ Total Expiry
- ♦ Retail sales value

The price of the drug in retail value is calculated on the following basis. However, there may be some variation in practice.

Five percent is added to the bill amount as custom duty and custom clearing expenses. To this figure 6% is added as importers commission. The wholesaler adds 8% to sell to the retailer. Retailer adds 16% to this figure to make retail price.

4.4.2. Data from domestic industries

- ♦ Total production value
- ♦ Total sales value
- ♦ Bonus / deals value
- ♦ Total expired drugs value
- ♦ Retail sales value

To calculate the retail sales value the following factors were used

- ♦ 10% wholesale commission, and
- ♦ 16% retail commission

4.4.3. Data from customs

- ◆ Total import value including free goods & physicians samples
- ♦ Retail sales value

To calculate the retail sales value, the same factors as for calculating from importer were used.

4.4.4. Data from Government Institutions (hospitals and regional medical stores)

♦ Total procured value

4.4.5. UN agencies / International agencies / INGOs / NGOs included

♦ Total import value

4.4.6. Data from drug retailers

♦ Total sales value

The sales from retailers were divided into winter & summer sales. The winter and summer period for three strata were defined as follows:

- a. **Mountain**: Ten months winter and two months summer
- b. Hill: Eight months winter and four months summer
- c. Terai: Six months summer and six months winter

The total sale value of retailers in each stratum was obtained by extrapolating average winter and summer sales with the total number of retail outlets.

4.4.7. Top fifteen selling drugs

The following data was used to find out the top 15 selling drugs

- Data on sale of top 15 imported drugs by quantity and price.
- Data on sale of top selling 15 drugs of domestic companies by quantity and price.

5. RESULTS

The followings are the results.

Table VII: Domestic Manufacturing and Repackaging Industries (2056/57)

	Value in Millions	% of Production
Production	1079.4	-
Sales	1032.6	95.7
Bonus/Deals*	141.7	13.1
Physician Samples/Free Goods**	49.5	4.6
Expiry***	12.8	1.2

^{*} Value based on 26 industries

^{***} Value based on 19 industries

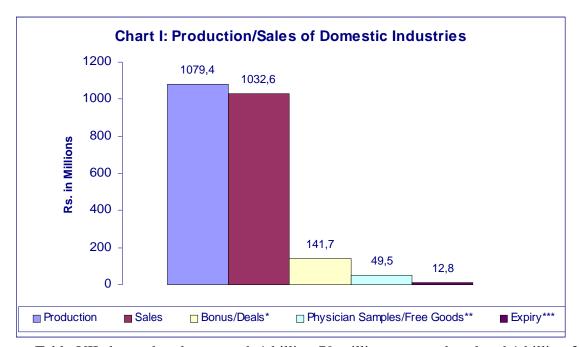


Table VII shows that drugs worth 1 billion 79 million was produced and 1 billion 32 million was sold. The figure shows that 4.6% of production was used as free samples. Similarly, 13% of the total production was spent by domestic industries as bonus or deals. The value of expired drugs was 1.2% of total production.

^{**} Value based on 27 industries

Table VIII: Drugs Import and Sales (2056/57)

	Value in Millions (Rs.)	% of Import
Private Importers		
Import Value	2243.1	-
Sales Value	2173.9	96.9
Bonus Value	93.3	4.3
Expiry Value	8.2	0.4
Other Agencies		
HMG^*	1194.6	-
Other Agencies	** 58.5	-

^{*}Including amount imported by UN and International agencies for the government ** INGO's, NGO's etc.

Table VIII shows that drugs worth 2 billion and 243 million was imported into Nepal through importers. Of the total imported drugs, 2 billion and 173 million worth drugs were sold during the fiscal year. The figure shows that 0.4% of total import was expired. Similarly, the total bonus was 4.3 % of total sales.

The table VIII also shows, the value of drugs imported through government institutions including the drugs imported by UN and international agencies for the government supply. The total value of such import was one billion and 194 millions. The data does not include imports by diplomatic agencies (Embassies).

Similarly, the table also shows that drugs worth 58 million was imported by NGOs / INGOs into the country.

Table IX: Drugs Imported through Different Custom Points (2056/57)

Custom Points	Value In I	Millions	% of Total Import
Tribhuban International A	Airport	560.3	25.0
Private Importers	179.8		
Other Agencies*	380.5		
Bhairahawa		5.7	0.3
Biratnagar		26.8	1.2
Birgunj		1673.4	73.1
Dhangadi		0.0	0.0
Jaleswor		1.3	0.1
Janakpur		0.0	0.0
Kakarvitta		0.0	0.0
Krishnanagar		0.0	0.0
Kunauli		0.0	0.0
Mahendranagar		0.0	0.0
Nepalgunj		6.6	0.3
Siraha (Madar)		1.5	0.1
Tatopani		0.0	0.0
Total		2287.6	100.00

^{*}Including amount imported by UN and International agencies for the government

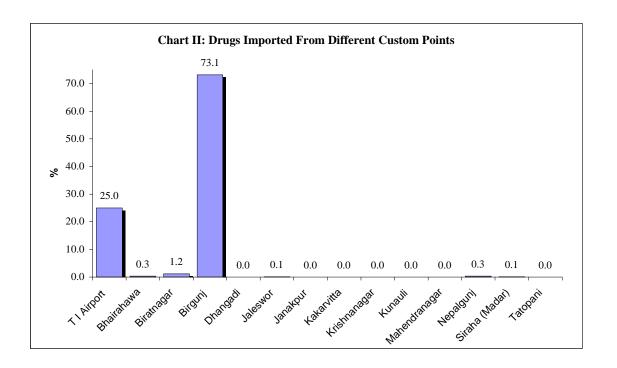


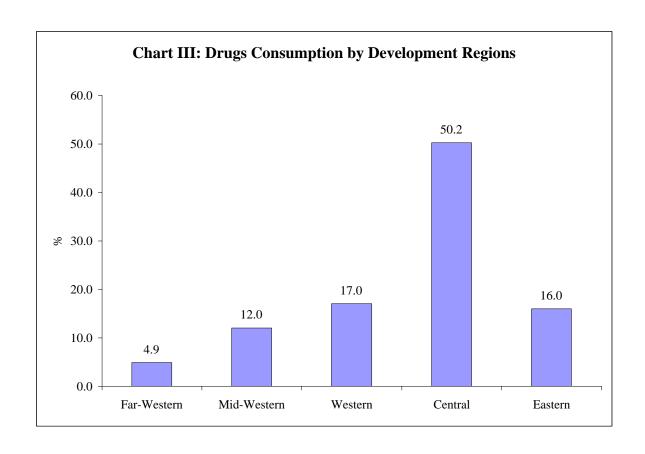
Table IX and the figure show the value of drugs imported through different custom points of the country. It shows that 73.2% of total import was through Birgunj custom followed by Trivuban International Airport custom. It also shows that drugs are not imported through many custom points. It does not include the value of drugs imported from diplomatic agencies (Embassies). The drugs imported from the diplomatic agencies could not be figured out.

Table X: Drug Consumption Pattern by Topographical & Development Regions Based on Retailers Data

Geographical Region	Development Region	Consumption Value in '000'	%
Geographical Region Far-Western Mid-Western Western Central Eastern Hill Far-Western Mid-Western Western Central Eastern Far-Western Central Eastern Eastern Far-Western Eastern Central Eastern	12841	0,19	
	Mid-Western	9322	0,14
	Western	33047	0,49
	Central	79046	1,16
	Eastern	6564	0,10
Hill	Far-Western	46295	0,68
	Mid-Western	255108	3,76
	Western	603700	8,89
	Central	2085984	30,72
	Eastern	71429	1,05
Terai	Far-Western	272343	4,01
	Mid-Western	547011	8,06
	Western	517089	7,61
	Central	1245877	18,35
	Eastern	1004776	14,80
	Total	6790432	100,00

Table X shows the drug consumption pattern in the different topographical and development regions based on the data from drug retailers. The total consumption was Rs. 6 billion 79 millions. The highest consumption was shown to be 30.72% in central

development region including Kathmandu valley. The Kathmandu valley alone consumed 26.3%.



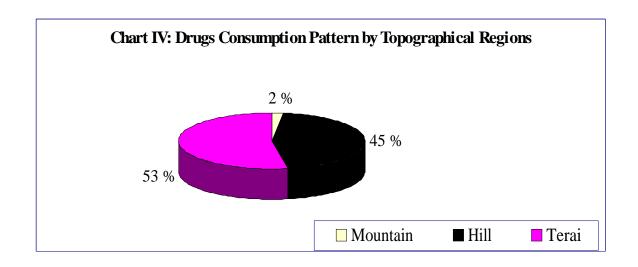


Table XI: Top 15 Selling Drugs from Domestic Drug Manufacturers

(Value & Quantity in '000')

	Name of Drug	Retail Value	Dosage Form	Quantity	% in Total
1	Amoxycillin	148497	tablet/capsule	18880	9.9
			Liquid	1185	
2	Vitamins	93302	tablet/capsule	22247	6.2
			Liquid	1655	
3	Cough Preparations	66596	Liquid	2646	4.4
4	Ciprofloxacin	54267	Tablet	7791	3.6
			Eye/ear drops	80	
5	Ibuprofen+Paracetamol	50507	Tablet	24570	3.4
			Liquid	220	
6	Ampicillin+Cloxacillin	48676	tablet/capsule	5180	3.2
			Liquid	212	
7	Iron Preparations	48483	tablet/capsule	15997	3.2
			Liquid	486	
8	ORS	43495	Powder	6357	2.9
9	Paracetamol	40212	Tablet	38846	2.7
			Liquid	1739	
10	Metronidazole	39907	Tablet	42095	2.7
			Liquid	542	
			Infusion	26	
11	Albendazole	36924	Tablet	4780	2.5
			Liquid	1519	
12	Cotrimoxazole	36408	Tablet	18585	2.4
			Liquid	485	
13	Metronidazole+Diloxani de	33212	Tablet	5968	2.2
			Liquid	827	
14	Cold Preparations	31127	Tablet	16517	2.1
			Liquid	326	
15	Tetracycline	23110	tablet/capsule	9277	1.5
		794721			52.8

Table XI shows, top 15 selling drugs from the domestic manufacturers. Amoxycillin in its different dosage forms shared about 10% of the total domestic sales. It was followed by vitamins, cough preparations and ciprofloxacin.

On the other hand, top 15 selling drugs from the imports included vitamins, cephalosporins, cough preparations and ciprofloxacin (Table XII).

Table XII: Top Fifteen Selling Imported Drugs (Value & Quantity in '000')

SN	Name of Drug	Retail	Dosage Form	Quantity	% in Total
		Value			
1	Vitamins	164718	tablet/capsule	35844	5.2
			Liquid	3468	
			Injection	2016	
2	Cephalosporins	134791	tablet/capsule	1434	4,3
			Liquid	604	
			Injection	649	
3	Cough Preparations	130379	Tablet	264	4,1
			Liquid	3388	
4	Ciprofloxacin	107258	Tablet	11219	3.9
			Injection	84	
			eye/ear drops	223	
			eye ointment	109	
5	Amoxycillin	96984	tablet/capsule	6688	3.6
			Liquid	1393	
			Injection	44	
6	Antacids	88092	Tablet	34052	3.2
			Liquid	1976	
7	Ampicillin+	77266	tablet/capsule	9117	2.5
	Cloxacillin		Liquid	23	
			Injection	778	
8	Omeprazole	40402	tablet/capsule	6676	1.3
9	Enzymes	38495	tablet/capsule	1851	1.2

	Total	1124241			35.7
			Liquid	1936	
15	Cotrimoxazole	29374	Tablet	9120	0.9
			Scrub	2,4	
			veginal tablet	235	
			Ointment	259	
			Liquid	160	
14	Povidone Iodine	31067	Gargle	94	1.0
	(for common cold)		Liquid	296	
13	Cold Preparations	27212	Tablet	10472	1.0
12	Ranitidine	32572	Tablet	16710	1.0
			Eye drops	22	
			Injection	564	
			Ointment	143	
11	Diclofenac	37038	Tablet	20063	1.2
			Liquid	60	
10	Calcium Preparations	37466	Tablet	6143	1.2
			Liquid	623	

Table XIII: Market Share of Domestic and Imported Top Selling Drugs

		Total Market*		Domestic		Import	
S	Name of Drug	Value	%	Value	%	Value	%
N		Rs.'000'	Share	Rs. '000'	Share	Rs. 000'	Share
1	Amoxycillin	260998	4,42	148497	56,9	112501	43,1
2	Vitamins	258020	4,37	93302	36,2	164718	63,8
3	Cough Preparations	196975	3,33	66596	33,8	130379	66,2
4	Ciprofloxacin	178686	3,02	54267	30,4	124419	69,6
5	Cephalosporins	153788	2,60	18997	12,4	134791	87,6
6	Ampicillin+Cloxacillin	125942	2,13	48676	38,6	77266	61,4
7	Antacids	121632	2,06	19445	16,0	102187	84,0
8	Ibuprofen+Paracetamol	80483	1,36	50507	62,8	29976	37,2
9	Metronidazole	78136	1,32	39907	51,1	38229	48,9
11	Iron Preparations	77674	1,31	48483	62,4	29191	37,6
10	Cotrimoxazole	65782	1,11	36408	55,3	29374	44,7
12	Cold Preparations	62693	1,06	31127	49,6	31566	50,4
13	Enzymes	54794	0,93	16299	29,7	38495	70,3
14	Diclofenac	53594	0,91	16556	30,9	37038	69,1
15	ORS	46168	0,78	43495	94,2	2673	5,8
	Total	1815365	30,73	732562		2547957	

^{*} Retail sales value of importer (i.e.3149.9 millions) and retail sales value for domestic manufacturer (i.e.1504.0 millions)

Table XIII and chart shows different products and their market share (import & domestic) eg. amoxycillin shares 4.4% of the total market in the country. It is met by domestic manufacturer and import. The domestic manufacturer share bigger percentage than the imported drugs.

The table also shows share of other drugs in the total market. Vitamins and cough preparations share 4.4% and 3.3% respectively in the total market. They are mostly imported than produced locally.

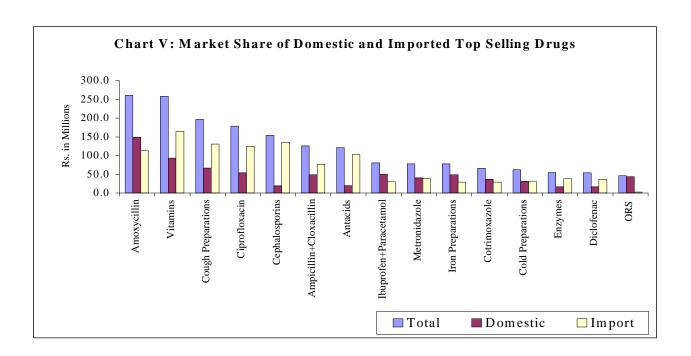


Table XIV: Procurement by UN, INGOs and NGOs

Source	Amount in Rs. Millions
Custom data	380.5
Data from importing/procuring agencies	1253.1

The table XIV shows procurement by UN, INGOs and NGOs. There is a great variation in data from two different sources. The data from custom is low because of unavailability of value of drugs in the custom clearance form (*Pragyapan Patra*).

Procurement of drug by Government Institutions

The total value of procured drugs was 94.7 millions

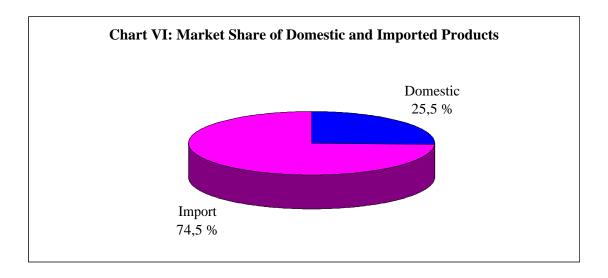
Table XV: Drug Consumption in Retail Values Calculated by Using Different Data Sources

Source		Retail Value in Millions
Drug Importers & Domestic Industries		5907.0
Private Drug Importers	3149.9	
Domestic Industries	1504.0	
Other Agencies	1253.1	
Custom Points and Domestic Industries		4543.8
Private Drug Importers	2659.3	
Other Agencies	380.5	
Domestic Industries	1504.0	
Retailers		
Net sale of allopathic drugs		6790.4

Net sale of allopathic drugs from retailers is calculated by reducing the total sales value by 19.3%, which is the sales of non-drug items (PHON, 2001). The non-drug items include nutritional supplements, surgical items and cosmetics.

Table XV shows a big difference in data from three different sources The value from retailers is very high where as the value from custom points is lowest. The difference in value calculated from custom and importer is due to lack of value of drugs imported by UN and other agencies in *Pragyapan Patra*. However, these agencies provided the value

of drugs imported by them. If the difference of value of imported drugs by UN and other agencies (872.6 millions) is added in the value obtained from the custom, the value obtained (5416 millions) is closer to value from obtained from the combination of importer and domestic industries (5907 millions). The relative standard deviation on the data from custom, importer and retailers is \pm 9.1%.

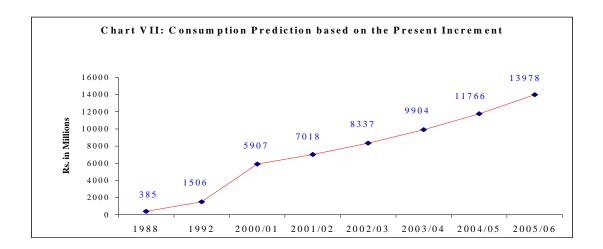


Annual Increment on Consumption

The annual increment from 1992 data is given in the table.

Table XVI: Annual Increment on Consumption

Data source	FY2048/49	FY2056/57	Increment %
Customs	1508.0	4543.8	14.8
Importers	1506.0	5907.0	18.8
Retailers	1583.0	6790.4	19.5



RECOMMENDATIONS

- 5.1. The drugs are imported from four custom points only. It can support National Drug Policy, 1995 in identifying definite custom points for importing drugs.
- 5.2. The top 15 drugs share 30% of the total market. The local manufacturing units should be encouraged to produce essential drugs from the 15 items and reduce their imports.
- 5.3. The non-essential drugs like vitamins, cough preparations, cold preparations and enzymes share about 10% of the total market. Intervention measures including regulatory should be undertaken to minimise their sales.
- 5.4. The antibiotics share about 15% of the total market. Ciprofloxacin and cephalosporins share about 6% of the market. It suggests for conducting study to assess their use and design interventions to improve their rational use.

6. CONCLUSION

The study shows the consumption of allopathic drugs in the fiscal year 2056/057 (1999/2000) has been Rs. 5907 millions. The annual increment of consumption has been 18.8%. Twenty six percent of the consumption is met by national industries.

REFERENCES

- 1. Managing Drug Supply, Management Science for Health, USA, 1997.
- 2. Quantification of Drug Requirement in Nepal: A Consumption Survey, DDA, 1992.
- 3. Quantification of Essential Drugs, RDL/DDA, 1988.
- 4. Sale of Non-drug Items From Drug Retail Shops, PHON, 2001.(unpublished)
- 5. Thapa B B et. al: Nepalese Pharmaceutical Guide, 1997.

List of Importers

Importer

1 Alliance Enterprises

- 2 Amarawati Internationals
- 3 Amit Drug House
- 4 Amrit Medico
- 5 Avisek Medical
- 6 Balajee Medicine Distributers
- 7 Banarjee & Brothers
- 8 Basundhara Pharma
- 9 Bel Pharmachem
- 10 Bhajuratna Pharma
- 11 BR Medical Suppliers
- 12 Bromed Pharmaceuticals
- 13 CE Pharma
- 14 Chaosati Pharma
- 15 Crystal pharma
- 16 Dipali Pharma
- 17 Drug Distributers
- 18 Drug Imporium
- 19 Elcomed Concern
- 20 Ethimed Concern
- 21 Exel Trading
- 22 Fairmed Concern
- 23 Farmanura
- 24 Formed
- 25 G Pharma Link

- 26 Gaurishanker Pharma
- 27 Gautam Medicine Distributers
- 28 Gomatim Pharmaceuticals
- 29 Govinda Pharmaceuticals
- 30 Gracure Medicine
- 31 Gunjeswori Pharmaceuticals
- 32 Gupta & Sons
- 33 Guras Trade Link
- 34 Hemant Emporium
- 35 Himgiri Medico
- 36 Hoehst Marrion & Roussel
- 37 Impact International
- 38 Instyle Trading
- 39 Jai Medico
- 40 Jai Shree Janata Dispensory
- 41 Kalpatru Traders
- 42 Kamala Medicine
- 43 Kanchan Medicine
- 44 Kayal Trading Concern
- 45 Liana Trade Link
- 46 Linkmed Pharma
- 47 Luna Trade Concern
- 48 Madhamabchal Medicine Distributers
- 49 Maheswori Distributers
- 50 Medicine Distributer
- 51 Medinura
- 52 Medisales
- 53 Medi Surg Impex

- 54 Meditron
- 56 Meditron International
- 57 MITC
- 58 Mrigendra Concern
- 59 Nepal Drug Distributers
- 60 New Loyal Medicine Distributers
- 61 New Narayani Drug House
- 62 Niraj Pharmaceuticals
- 63 Nishant Pharmacu\euticals
- 64 P Medicine Enterprises
- 65 Padam Shree Medicine Distributers
- 66 Pharmaceutical Enterprises
- 67 Pharmachem
- 68 Pharmaco Concern
- 69 Priya Trading
- 70 Purbanchal Medicine Distributers
- 71 Rainbow Trade Concern
- 72 RD Trading
- 73 Sajha Swastha Sewa
- 74 Sanu Commercial Enterprises
- 75 Sapana Enterprises
- 76 Shiv Shakti Medicine Distributers
- 77 Shivam Distributers
- 78 Shree Om Brothers
- 79 Srijana Pharmaceuticals
- 80 SS Overseas
- 81 Super Distributers
- 82 Suravi Pharma

- 83 Swostic Pharmaceuticals
- 84 Tegasa
- 85 Themjo Enterprises
- 86 Tridev Pharma
- 87 Trishul
- 88 Ttam

89 Unique Trade Link

- 90 Vijeswori Pharmaceuticals
- 91 Yeti Pharmachem
- 92 Yetichem
- 93 Zen Pharmaceuticals

Questionnaire for Retailers Interview

District:	Municipality:	L	Location:	
1. What may b	e the number of retail sho	ops in the district?		
2. What is the	average daily sale of your	shop?		
3. How much v	was the sale yesterday?			
4. How is the b	ousiness this year compar	ison to the last year?	:	
	Increased	Decrease	ed	
5.What was av	erage daily sale in the wi	nter last year?:		
6. What was av	verage daily sale in the su	mmer last year?		
7.What was the	e lowest and highest sale	per in the last year?	Lowest	
Highes	t			
8.What was the	e total sale last year?			
9.In compariso	n to year before, what wa	as the percentage incr	rement last year?	
10.How much	was the amount of drugs	expired or damaged i	in the last year?	
11.What is the	stock value of drug in yo	our shop to-day?	\neg	
Research Assis	stant: Su	pervisor:	Date:	