Survey for Prevalence of Medicine Consumption and Diseases in Different Age Groups in Rural Areas in Bangladesh

B. Pharm Research Project

A dissertation submitted to the Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, in partial fulfilment of the requirements for the degree of Bachelor of Pharmacy

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APPROVAL

This project**, Survey for prevalence of medicine consumption and diseases in different age groups in rural areas in Bangladesh**, submitted to the Department of Pharmacy, Faculty of Allied Health Sciences, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Pharmacy and approved as to its style and contents.

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I thus pronounce that, this venture report is done under the supervision of Nahian Fyrose Fahim, Lecturer, Department of Pharmacy, Daffodil International University, in fractional satisfaction of the necessities for the level of Bachelor of Pharmacy. I am proclaiming that this Project is my unique work. I additionally pronounce that neither this undertaking nor any part thereof has been submitted somewhere else for the honor of Bachelor or any degree.

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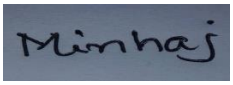

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Md. Minhaj Uddin

DEDICATION

DEDICATED TO MY PARENTS & TEACHERS

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SURVEY FOR PREVALENCE OF MEDICINE CONSUMPTION AND DISEASES IN DIFFERENT AGE GROUPS IN RURAL AREAS IN BANGLADESH

Abstract:

In South-East Asia the main public health issues are infectious diseases and communicable disease where morbidity and mortality due to non-communicable diseases (NCDs) has increased over the last few decades. Therefore, the objective of our study is to understand the medicine consumption scenario among different age groups in Bangladesh and to ensure whether patients are aware about safe use of medicine. We conducted our study over 70 people in Homna, Cumilla. From the above study conducted over 70 people we can say that highest number of people was found in the age group of 10-20 years whose body weight ranged in 51-60 kg. It also demonstrated that most of the people in our study were literate where the highest number of people passed at least JSC. Among different types of occupation the highest percentage was found in the category of other occupation.(figure 3) Figure 4 clearly should that 48% people in our study don't earn any money. It is a good sign that most of the people in our study did not have any eye disease and result was almost same in case of hearing problem. It was a positive sign people took different medicine when doctor prescribed the medicine. Addiction to smoking and tobacco was a bad sign that can harm to the people by its severe side effects.(Figure 5)

Chapter 1

Introduction

Introduction:

1.1: Life expectancy and scenario of health condition in Bangladesh

Bangladesh is situated in the northeastern piece of South Asia having a territory of 147,570 square kilometers and it is the most thickly populated nation on the planet, barring city-states, for example, Singapore, Bahrain, and the Vatican.(1) Until the late nineteenth century, future (LE) had been viewed as an adequate pointer for deciding populace wellbeing and general wellbeing priorities.(2) People over the world presently hope to have longer life expectancies and longer incapacity free future (DFLE). DFLE or solid future has picked up force over LE for surveying populace wellbeing and general wellbeing needs the world over, especially in created nations. (3) DFLE centers around the personal satisfaction while LE quantifies the amount of life an individual hopes to live. It is an important list for understanding changes in both the physical and emotional well-being conditions of the all inclusive community, for allotting assets, and for estimating the accomplishment of political projects (4).

In the course of the most recent a long time since freedom Bangladesh has made part of steps in the Health Sector. Obviously there is expansion in wellbeing foundations - restorative schools, medicinal college, private therapeutic universities, private facilities, private emergency clinics, region medical clinic, provincial wellbeing focuses and network centers. Numerous NGOs are additionally drawn in and contributing toward human services conveyance framework. (5) There have been critical gains as far as polio and little pox annihilation. Broad inoculation, case seclusion has brought about lessening number of diphtheria and lockjaw.

However, the nation has low proportions of credentialed experts just 0.5 specialists and 0.2 medical caretakers per 1000 individuals, far not exactly the base standard of 2.28 per 1000 prescribed by WHO. (6)Table-I: Bangladesh-basic statistics

Area (sq. km)	147,570

Population density (per sq. km)	926
Crude birth rate (per 1000 population)	19.2
Crude death rate (per 1000 population)	5.5
Life expectancy at birth m/f (2011)	67.9 /70.3

1.2: Successes of Bangladesh's Health Sector

Bangladesh has made noteworthy improvement in wellbeing part, which make it a model for other creating nations despite the fact that being an asset poor nation. In the course of the most recent decades key wellbeing markers, for example, future and inclusion of vaccination have improved strikingly, while baby mortality, maternal mortality and richness rates have dropped essentially (7). Bangladesh stands apart as a nation that has made goliath strides in social insurance. Some time before the rise of contemporary worldwide wellbeing activities, the administration set solid accentuation on the significance of youth inoculation as a key instrument for decreasing youth mortality. The Expanded Program on Immunization (EPI) in Bangladesh is viewed as a wellbeing framework achievement in light of its momentous advancement throughout the most recent two decades. It gives practically widespread access to immunization administrations, as estimated by the level of youngsters under 1 year of age who get BCG (an antibody against tuberculosis). This expanded from 2% in 1985 to 99% in 2009. Inclusion of different immunizations has likewise improved significantly (8). Be that as it may, poor access to administrations, low nature of care, high pace of maternal mortality and poor status of youngster wellbeing still stay as difficulties of the wellbeing area (7)Over the most recent a long time since freedom Bangladesh has made parcel of steps in the Health Sector. Obviously there is expansion in wellbeing frameworks - therapeutic schools, restorative college, private medicinal universities, private facilities, private emergency clinics, locale emergency clinic, country wellbeing focuses and network centers. Numerous NGOs are additionally connected with and contributing toward medicinal services conveyance framework. (5) There have been critical gains as far as polio and little pox annihilation. Broad immunization, case disconnection has brought about reducing number of diphtheria and lockjaw.

Yet, the nation has low proportions of credentialed experts just 0.5 specialists and 0.2 medical attendants per 1000 individuals, far not exactly the base standard of 2.28 per 1000 suggested by WHO. (6)

1.3: Challenges of Bangladesh's Health Sector

In Bangladesh, medicinal services is offered either through government-run emergency clinics or through secretly run centers. Bangladesh is as yet slacking in social insurance administrations for the poor just as the prosperous. Lately, our neighbors, India and Thailand have continued onward in regard of skill and experience of specialists, progression of human services advances and top notch medical clinics and wellbeing the board organizations.(9) To accomplish this in our nation, innovative coordinated effort with mechanically propelled emergency clinics are required and pursue wellbeing the executives associations in the created nations of Asia and the propelled countries of the West.(10)

In Bangladesh, essential social insurance administrations, including the maternal and youngster programs have been sought after for the most part through supply-side mediations. Be that as it may, in spite of the fact that wellbeing administrations are free at open offices, getting wellbeing administrations from semi-qualified or inadequate allopathic experts and conventional social insurance suppliers (ayurvedic, homeopathic, unanie/kabiraji and others) are normal and prevalent in country regions prompting low usage of open facilities.(11)

There are various components that influence wellbeing status of the individuals. There are request side variables, for example, pay, resources, social and social practices, way of life and supply side factors, for example, the general medicinal services conveyance framework, wellbeing use, and so on. There are likewise ecological variables and sexual orientation imbalance related elements that impact wellbeing status.(12)

In Bangladesh, horribleness and mortality due to non-transferable ailments (NCDs) has expanded throughout the last not many decades.(13) Non-transmittable infections (NCDs) - cardiovascular sicknesses, malignant growth, diabetes, and interminable respiratory illness—in Bangladesh have just become significant general wellbeing concern.1 Almost 60% passings, in Bangladesh, are expected to NCDs.(14)

1.4: Common acute and choric disease in Bangladesh:

In South-East Asia the principle general medical problems are irresistible illnesses and transferable ailments. General wellbeing has improved notably in Bangladesh in the course of recent decades. In any case, Bangladesh faces significant wellbeing challenges. (15) Bangladesh Demographic and Health Survey isn't relied upon to diminish altogether for a considerable length of time. As in different nations, the populace is maturing after some time because of diminishing ripeness rates (6.3 births per lady in 1975 to 2.3 in 2011). (16) Unsafe nourishment stays a significant danger to open health4 every year, residents experience the ill effects of the intense impacts of nourishment sullied by microbial pathogens, compound substances and poisons. There is a need to limit the customer's presentation to unhygienic, polluted and corrupted nourishment and beverages through severe laws to control promoting of such items. (17)

Bangladesh has been encountering epidemiological change from transmittable infection to non transferable illness (NCD) which has troubled the effectively stressed wellbeing framework and incurred extraordinary expense on the general public. Cardiovascular sickness, diabetes, incessant respiratory illness, tumors and different NCDs advance from the unpredictable cooperation of various determinants and hazard factors, for example, tobacco use, unfortunate eating routine, physical dormancy and abundance adiposity.(18)

The nation is experiencing an 'unsmooth' epidemiological progress. While the passing rate from irresistible maladies has been diminishing gradually – to a great extent because of effective vaccination programs against youth irresistible sickness, across the board utilization of oral saline for looseness of the bowels, improvement in sanitation, and the accessibility of cheap anti-infection agents – the death rate from incessant illnesses has been expanding quickly. (19)

A few different examinations have focused on a generally modest number of ailments, for example, cardiovascular infections, diabetes, hypertension, joint inflammation, malignant growth, constant obstructive pneumonic illness (COPD), and osteoporosis, instead of the entire scope of ceaseless morbidities. Such data could educate choices in the wellbeing frameworks so as to lessen multimorbid passings. Be that as it may, a predetermined number of such investigations have been directed in creating countries.(20) An assortment of microorganisms activating enteric illnesses alongside sicknesses, for example, malignancy, respiratory and aspiratory contaminations, flu, heart ailments, jungle fever, TB, dengue, liver cirrhosis, urinary tract diseases (UTIs), diabetes, chikungunya, and entrepreneurial diseases present significant general wellbeing related difficulties in Bangladesh with subsequent high dismalness and mortality.(21)

1.5: Scenario of medical facilities in urban and rural area of Bangladesh:

The Health care framework in Bangladesh falls under the influence of the Ministry of Health and Family Planning. The administration is answerable for building wellbeing offices in urban and rustic territories. Wellbeing is an essential prerequisite to improve the personal satisfaction. National monetary and social advancement relies upon the status of a nation's wellbeing offices. A medicinal services framework mirrors the financial and innovative advancement of a nation and is a proportion of the duties a network or government accept for its kin's social insurance.

The viability of a wellbeing framework relies upon the accessibility and availability of administrations in a structure, which the individuals can comprehend, acknowledge and use. In Bangladesh, most of the nation's populace lives in provincial territories, while most of wellbeing experts work in urban focuses. Moreover, the quick development of the private therapeutic framework implied that less experts stayed in the open part to deal with the majority. Private frameworks are for the most part distant for destitute individuals who can scarcely stand to live day by day.(22)

In the event that we talk about wellbeing status of Bangladesh, we may make reference to that around 30 percent kicking the bucket patients can't get administrations of prepared doctor and around 60 percent of hopeful moms neglect to get pre-natal examination. "Wellbeing is a right, not benefit. It should be conveyed with value." Well, no denying the way that wellbeing is a fundamental prerequisite to improve the personal satisfaction. National monetary and social improvements depend a great deal on the condition of wellbeing administrations. Access to wellbeing administration is likewise ensured in our constitution and is acknowledged as a fundamental human right.(23)

Nonetheless, an enormous number of Bangladeshis, especially in the provincial zones have little access to human services offices. It might appear that entrance to human services administrations for the insolvents, poor and the down and out nations to stay a fantasy in one hand and then again private part medicinal services administration conveyance with generally current and propelled offices has grown surprisingly for the well-to-do area of the general public. (23)

Formal human services framework isn't adequate to fulfill the need of the corrective administrations of the wellbeing infections in rustic Bangladesh. Town specialists are unified piece of our present human services framework. This isn't yet to take legitimate intercession to lessen

unsafe and unseemly utilization of medications by the town specialists for sparing most by far of our country populace. Rustic individuals and country networks are looked with a considerable lot of a similar human services issues and difficulties standing up to the remainder of the country—detonating heath care costs, enormous quantities of individuals are uninsured and underinsured. It is fundamental to expand existing human services framework. (24)

Nonetheless, there are various back dated medicinal services issues confronting provincial individuals in various rustic spots of Bangladesh. It very well may be tended to that country issues ought to be considered in human services change enactment. As there is a discussion over national human services framework, change should put in rustic social insurance framework. Specialists trust that legitimate checking and wellbeing mindfulness is imperative to improve the country medicinal services framework in Bangladesh. (25)

Bangladesh has been encountering epidemiological progress from transferable sickness to non transmittable infection (NCD) which has troubled the effectively stressed wellbeing framework and dispensed incredible expense on the general public. Cardiovascular sickness, diabetes, incessant respiratory malady, malignancies and different NCDs develop from the intricate connection of various determinants and hazard factors, for example, tobacco use, unfortunate eating routine, physical latency and abundance adiposity.(18)

The nation is experiencing an 'unsmooth' epidemiological progress. While the passing rate from irresistible illnesses has been diminishing gradually – to a great extent because of fruitful vaccination programs against youth irresistible sickness, boundless utilization of oral saline for looseness of the bowels, improvement in sanitation, and the accessibility of modest anti-infection agents – the death rate from incessant maladies has been expanding quickly. (19)

A few different examinations have focused on a moderately modest number of illnesses, for example, cardiovascular maladies, diabetes, hypertension, joint inflammation, malignant growth, incessant obstructive aspiratory infection (COPD), and osteoporosis, as opposed to the entire scope of constant morbidities. Such data could illuminate choices in the wellbeing frameworks so as to lessen multimorbid passings. In any case, a predetermined number of such examinations have been directed in creating countries.(20) An assortment of microorganisms activating enteric ailments alongside illnesses, for example, malignancy, respiratory and aspiratory contaminations, flu, heart sicknesses, intestinal sickness, TB, dengue, liver cirrhosis, urinary tract diseases (UTIs), diabetes,

chikungunya, and deft contaminations present significant general wellbeing related complexities in Bangladesh with ensuing high dreariness and mortality.(21)

Level	Type of facility	Type of service	Total No. of facilities	Total beds
Upazila	Upazila health complex (50-bed)	Hospital	268	13400
	Upazila health complex (31-bed)	Hospital	146	1526
	Upazila health complex (10-bed)	Hospital	11	110
		Subtotal of upazila health complexes	**425**	**18036**
	31-bed hospital	Hospital	5	155
	30-bed hospital	Hospital	1	30
		Subtotal of hospitals outside health complexes	**6**	**165**
	Trauma center (20-bed)	Hospital	5	100
		Total of upazila-level hospitals	**436**	**18301**
Union	20-bed hospital	Hospital	18	360
	10-bed hospital	Hospital	13	130
		Subtotal of union-level hospitals	**31**	**490**
	Union subcenter	Outpatient only	1275	-
	Union health and family welfare center	Outpatient only	87	-
		Subtotal of union outpatient centers	**1362**	-
		Total of union-level facilities	**1393**	**490**
Ward	Community clinic	Outpatient only	12584	-
		Grand total of hospitals (upazila and below)	**467**	-
		Grand total of health facilities (upazila and below)	**14413**	**18791**

Figure: Primary healthcare centers run by DGHS at the upazila level and below (26)

1.6: OTC and Restricted Medicine:

OTC Medications:

Over the counter (OTC) drugs are accessible to people in general without solution. They incorporate conventional drug store arrangements and medications that have all the more as of late been deregulated from their past status as "medicine just medicines."(27) The components by which people can acquire meds incorporate their customary endorsing by specialists, yet additionally the capacity to buy prescriptions straightforwardly. The most clear case of this is the network or retail drug store, where the metonymic term over-the-counter (OTC) starts and is utilized to depict such meds. (28)

The FDA Center for Drug Evaluation and Research (CDER) controls both OTC and physician recommended prescriptions. These meds are characterized by the Federal Food Drug and Cosmetic Act as "articles expected for use in the finding, fix, alleviation, treatment, or counteractive action of infection". (29)

There are in excess of 80 restorative classifications of OTC medications. These are regularly assembled into 12 wide remedial classes: Analgesics and antipyretics; cold, hack, and sensitivity items; evening time tranquilizers; gastrointestinal items; dermatological items; other topical items (counting antifungals and otics); ophthalmic items; oral human services items; menstrual items; nicotine substitution items; weight reduction helps; and contraceptives.(30)

Instances of OTC prescriptions:

acetaminophen, nonsteroidal calming drugs (NSAIDs), and Aspirin, Dextromethorphan, Guaifenesin, Pseudoephedrine, Phenylephrine, Benzocaine, Diphenhydramine, Simethicone, Calcium carbonate, Loperamide and so on.

1.7: Restricted Medicine

A controlled or confined medication is an endorsed prescription that is administered by the Misuse of Drugs Legislation.(31) Substances, items or arrangements, including certain meds, that are either known to be, or can possibly be, perilous or hurtful to human wellbeing, including being obligated to abuse or cause social mischief, are liable to control under the Misuse of Drugs Acts 1977 to 2016. They are known as "controlled medications". (32)

- The Misuse of Drugs Regulations 2001 sets out guidelines encompassing controlled medications, including who can supply and have controlled medications in an expert limit. These guidelines split controlled medications into plans:
- **Schedule 1** includes drugs like cannabis*****, LSD and ecstasy-type substances which are never used for medical purposes.
- **Schedule 2** includes opiates and major stimulants such as diamorphine, morphine, pethidine and amphetamine
- **Schedule 3** includes drugs such as barbiturates, buprenorphine, midazolam and temazepam.
- **Schedules 4 and 5** exist, but the drugs within are not subject to special prescription requirements.

List of Controlled Drugs: (34)

Amphetamines (including dexamphetamine), Anabolic steroids, Buprenorphine (including Subutex), BZP (and other piperazines), Cannabis, Cocaine, Codeine, N, N-dimethyltryptamine, Heroin, Methoxetamine, Morphine, Opium etc.

1.7: Diseases according to the age group in Bangladesh:

Right now, very nearly 66% of the all out passings comprehensively are owing to NCDs and almost 80% of these passings happen in low and center pay nations (LMICs) (WHO, 2014a). What is much increasingly critical is the way that over 40% or 16 million of these passings are unexpected losses happening younger than 70 years, and most of these (82%) happen in LMICs. Among all NCDs, diabetes, hypertension (HTN), cardio vascular sicknesses (CVD), incessant obstructive pneumonic maladies (COPD) and certain malignant growths are considered as significant givers answerable for the greater part of the NCD related yearly mortality, dismalness and wellbeing administrations usage. (36) In a hazard factors predominance overview in 2005, a generous extent (>70%) of the provincial populace were found to have at least three hazard factors for ceaseless NCDs

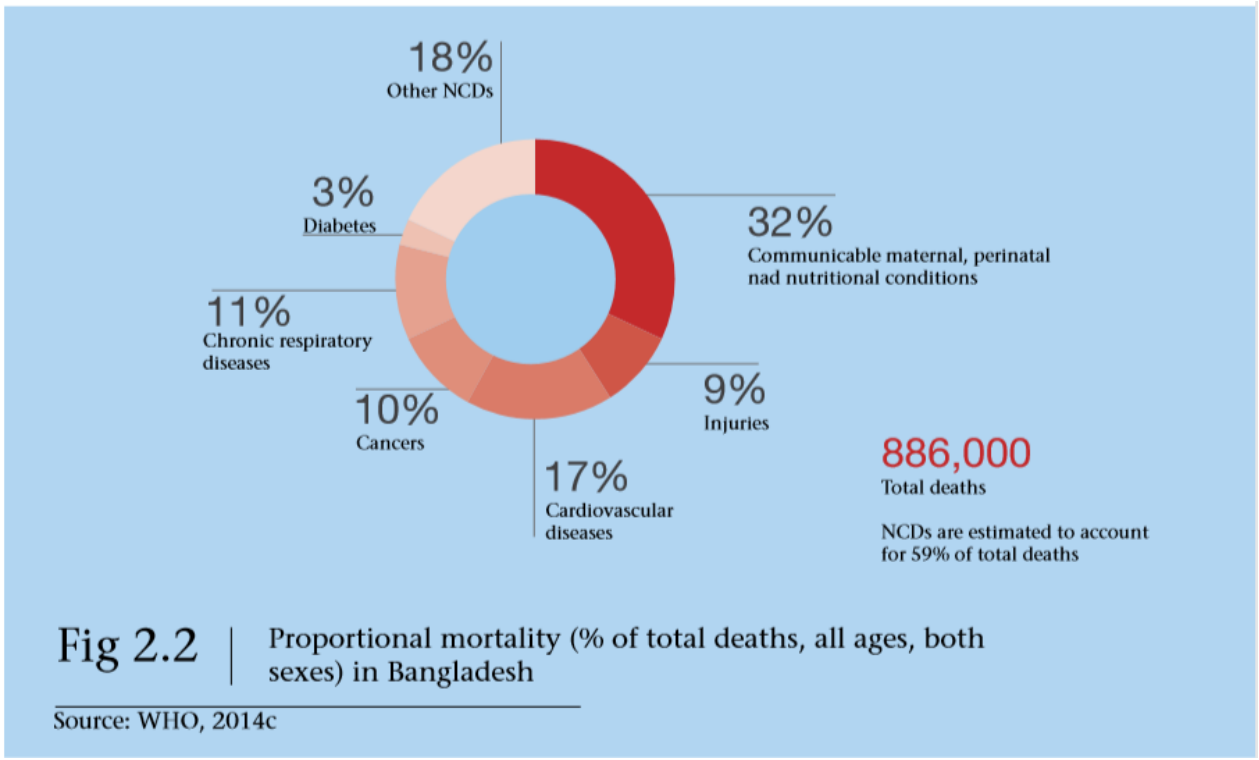


Figure: Proportional mortality (% of total deaths, all ages, both sexes) in Bangladesh (36)

Child health:

To accomplish the MDG-4 objective, Bangladesh has encountered a critical decrease of youngster mortality over the previous decades. In any case, under 5 mortality must be decreased to accomplish the SDG Goal three objective. Neonatal mortality is a puissant piece of by and large kid mortality. Neonatal death pace of Bangladesh fell slowly from 1990 to 2015.(37) In 1990, per 1000 live births under five death rate and newborn child death rate was 93 and 64 all inclusive yet in Bangladesh it was higher than the worldwide normal. In 2017, worldwide under five death rate and newborn child death rate was 39 and 29 for each 1000 live births separately and in Bangladesh this rate was lower than the world normal.

Childhood Mortality Trends in Bangladesh (Deaths per 1000 live births) (35)

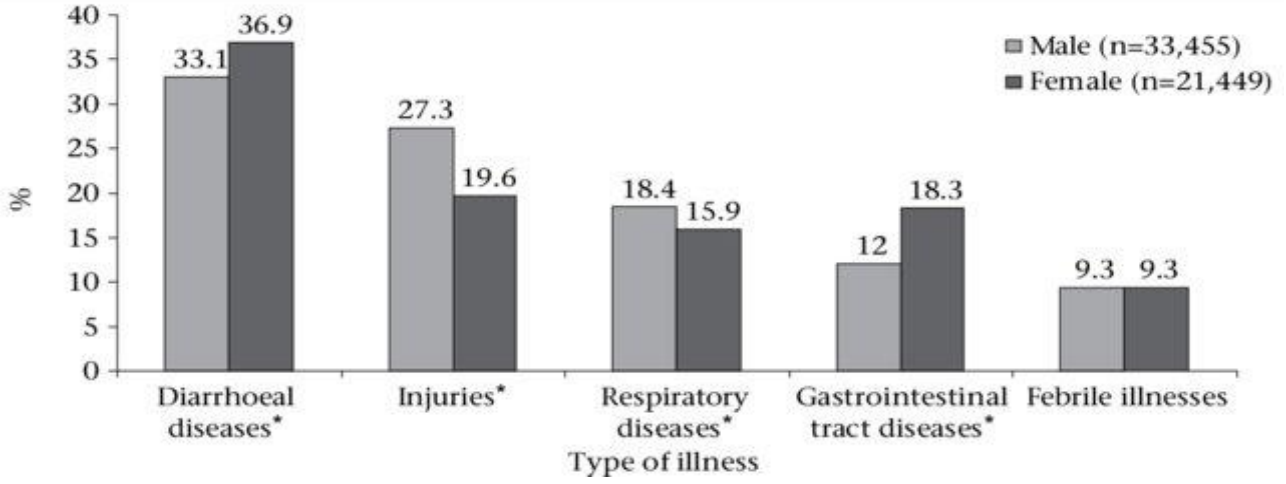
Category	1990	1995	2000	2005	2010	2015	2017
Under-5 mortality rate	143.80	114.00	87.40	66.20	49.20	36.40	32.40
Infant mortality rate	97.70	80.90	64.00	50.40	38.90	29.80	26.90
Neonatal mortality rate	64.10	52.30	42.40	34.90	27.40	20.70	18.40

Grimness and mortality information are significant for arranging and executing human services procedures of a nation. To comprehend the significant foundations for hospitalizations in provincial Bangladesh, statistic and clinical information were gathered from the medical clinic records of five government-run rustic wellbeing offices (upazila wellbeing buildings) arranged at various topographical areas of the nation from January 1997 to December 2001. During this period, 75,598 medical clinic confirmations altogether were recorded, of which 54% were for male, and 46% were for female. Of the considerable number of confirmations, diarrhoeal malady was the main source for hospitalization (25.1%), trailed by wounds (17.7%), respiratory tract ailments (12.6%), ailments of the gastrointestinal tract (10.5%), obstetric and gynecological causes (8.5%), and febrile sicknesses (6.7%). An extensive expert bit (8.3%) of the hospitalized patients stayed undiscovered. Notwithstanding the impediments of medical clinic based information, this paper gives a sensible understanding of the significant foundations for hospitalizations in upazila wellbeing buildings that may manage the approach creators in fortifying and organizing the medicinal services needs at the upazila level in Bangladesh. (38)

SURVEY FOR PREVALENCE OF MEDICINE CONSUMPTION AND DISEASES IN DIFFERENT AGE GROUPS IN RURAL AREAS IN BANGLADESH

Type of disease	<5 years (n=17,815)	5-14 years (n=6,814)	15-45 years (n=23,746)	>45 years (n=6,529)
Diarrhoeal diseases	50.9	49.9	22.4	22.7
Watery diarrhoea	49.9	47.9	21.2	21.5
Dysentery	1.0	1.9	1.2	1.2
Injuries	2.3	16.6	41.4	31.7
Assault	0.5	5.8	29.8	26.8
Road traffic accident	0.2	3.0	3.7	3.5
Others	1.6	7.8	7.9	1.4
Respiratory diseases	41.5	6.9	3.7	12.8
Pneumonia	18.0	1.7	0.3	0.7
Acute respiratory infection	22.3	2.6	0.3	0.3
Tuberculosis	0.02	0.03	0.2	0.2
Chronic obstructive pulmonary diseases	0.7	1.3	1.5	6.7
Respiratory tract infection	0.5	1.0	1.3	3.1
Others	0.1	0.3	0.2	1.8
Gastrointestinal tract diseases	1.9	14.2	22.1	22.0
Peptic ulcer diseases	0.1	0.6	5.0	5.0
Abdominal pain	1.8	13.4	16.6	18.1
Others	0.1	0.2	0.4	0.5
Febrile illnesses	3.4	12.4	10.4	10.8
Fever without definite diagnosis	3.2	10.6	8.5	8.8
Enteric fever	0.1	1.6	1.7	1.2
Malaria	0.03	0.13	0.15	0.2

Fig. 2. Percent distribution of hospitalized patients by gender and 5 leading causes of illness in 5 rural hospitals of Bangladesh,1997-2001



Chapter 2

Literature Review

SURVEY FOR PREVALENCE OF MEDICINE CONSUMPTION AND DISEASES IN DIFFERENT AGE GROUPS IN RURAL AREAS IN BANGLADESH

Title: Health status, treatment and drug use in rural Bangladesh: a case study of a village.

Author: Jiben Roy

In Bangladesh, the administration medicinal services framework stays an exceptionally minor wellspring of social insurance for provincial families. The accessibility of enlisted doctors is alarm in provincial regions, and the individuals, most of whom are underweight as shown by weight list estimation need to rely upon drug store salespersons, quacks and natural or profound healers.The medications are for the most part symptomatic and polypharmacy is normal, with anti-infection agents and nutrients endorsed broadly. Then again, country individuals now and then don't purchase every one of the medications that are recommended for them, halfway in view of monetary imperative. What's more, self drug is normal. While family arranging and inoculation are gradually getting well known among provincial families, general wellbeing information is as yet poor. Open medicinal services battles just as legitimate preparing for the provincial endorses could be useful in improving the present poor rustic social insurance framework.

Title: Evaluation of medicines dispensing pattern of private pharmacies in Rajshahi, Bangladesh.

Author: Shuvashis Saha & Md. Tawhid Hossain

During the entire investigation process, all out 7944 customers visited the drug stores under perception and 24,717 meds were apportioned. 22.70% of every one of these medications were sold without a solution. Out of the 5610 things apportioned without solution, 66.2% were administered on the solicitation of customers themselves and 33.8% on the suggestion of a medication merchant. Number of medication in a remedy was profoundly factor running from 2 to 5 drugs for each solutions (mean = 3.03). The normal number of prescriptions apportioned from every one of the drug stores during the perception time frame was 392, fluctuated drug store to drug store – running from 194 to 588. Lion's share of meds were apportioned unreasonably with no solution and over the counter administering of many low security profile drugs was normal. The outcomes and dialog exhibited in this paper will be useful to give a pattern to divert further examinations around there.

Title: Evaluating medicine prices, availability and affordability in Bangladesh using World Health Organisation and Health Action International methodology.

Author: Lombe Kasonde, David Tordrup, Aliya Naheed, Wu Zeng, Shyfuddin Ahmed & Zaheer-Ud-Din Babar

Mean LPG (originator brand) accessibility in the open part, private retail drug stores, and private centers was 37%, 63 (4) percent, and 54 (2) percent, individually. Medications for Non-Communicable Diseases (NCD) and basic prescriptions were altogether less accessible than irresistible ailment meds and unimportant drugs, separately. Accessibility and moderateness of NCD prescriptions are key concerns where the weight of NCD is rising. These discoveries show improvement from prior examinations, yet space for further advances in accessibility and moderateness of NCD prescriptions in Bangladesh. Few meds are reliably costly crosswise over segments in Bangladesh, recommending the requirement at systems to address costs for specific drugs.

Title: Managing Rational Use of Drugs in Bangladesh

Author: Ak Mohiuddin

Regardless of generous advancement in tranquilize producing, unreasonable medication use, wrong recommending, insufficient access to fundamental medications are serious issues influencing the complete medicinal services framework severely of Bangladesh. Practically, every one of the medications are accessible without solutions and self-drugs are profoundly normal. Access to basic prescriptions is essentially not as much as that referenced in the official records. Cost of fundamental meds isn't predictable and the medications controlling authority doesn't have any power over valuing of medications. To put it plainly, the affordable advancement and instructive flourishment doesn't speak to the wellbeing division of Bangladesh. Bangladesh is a profoundly populated nation. Financial improvement and scholastic flourishment don't speak to advancement in wellbeing division. Both the suppliers and patients are answerable for silly medication employments.

Title: Disease Patterns, Treatment Practices and Drug Requirements in Rural Bangladesh

Author: Shameem Ahmed Hélène Wirzba Jafar Ahmad Hakim Barkat-e-Khuda Rabeya Khatoon

A few investigations have been directed to inspect the quantity of and sorts of patients who visited the H&FWC and the SC and to survey the information on the specialist organizations about judgments and treatment. The present paper has surveyed five of these examinations with the point of giving data to an increasingly normal utilization of medications. It is likewise trusted that this paper will be a reference for malady examples and treatment rehearses in provincial MCH-FP government offices of Bangladesh. Two of the five examinations investigated were led by the Operations Research Project (once the Rural MCH-FP Extension Project), ICDDR,B. The other three investigations were led by the Management Development Unit (MDU) of the MOHFW, the Directorate of Family Planning and by the URC,B for CARE International, Bangladesh. Data on administrations was accessible from four of the five examinations looked into. The two ICDDR,B thinks about watched

the month to month variety in the quantity of customers going to the SC and the H&FWC though the other two examinations (MDU and URC) didn't mirror any occasional or other fleeting varieties with respect to customers.

Title: Socio-Economic Inequality of Chronic Non-Communicable Diseases in Bangladesh

Author: Tuhin Biswas , Md. Saimul Islam, Natalie Linton, Lal B. Rawal

Constant non-transmittable sicknesses (NCDs) are a significant general wellbeing challenge, and undermine social and financial improvement in a significant part of the creating scene, including Bangladesh. Epidemiologic proof on the financial status (SES)related example of NCDs stays constrained in Bangladesh. This investigation evaluated the connection between three constant NCDs and SES among the Bangladeshi populace, giving specific consideration to the contrasts among urban and provincial zones. Financial disparities were seen crosswise over ailments and hazard factors. Utilizing CI, critical disparities watched for prehypertension (CI = 0.09, p = 0.001), hypertension (CI = 0.10, p = 0.001), pre-diabetes (CI = - 0.01, p = 0.005), diabetes (CI = 0.19, p<0.001), and overweight/corpulence (CI = 0.45, p<0.001). As opposed to the high predominance of the constant wellbeing conditions among the urban most extravagant, a critical contrast in CI was watched for pre-hypertension (CI = - 0.20, p = 0.001), hypertension (CI = - 0.20, p = 0.005), pre-diabetes (CI = - 0.15, p = 0.005), diabetes (CI = - 0.26, p = 0.004) and overweight/heftiness (CI = 0.25, p = 0.004) were watched more among the low riches quintiles of provincial populace. The discoveries demonstrate the high weight of chose NCDs among the low riches quintile populaces in provincial territories and well off populaces in urban zones. Specific considerations might be important to address the issue of NCDs among these gatherings.

Chapter 3

Materials and methods

SURVEY FOR PREVALENCE OF MEDICINE CONSUMPTION AND DISEASES IN DIFFERENT AGE GROUPS IN RURAL AREAS IN BANGLADESH

Materials and methods

To identify the scenario of medicine consumption anon different age groups a structured questioner has been prepared. Data was collected from different areas of Bangladesh. After collection of data analysis has been done by using Microsoft excel for interpreting results. Here is the survey questionnaire (N=70). This study will be conducted elaborately after this preliminary study.

Personal Information

1. Name:
2. Age:
3. Gender:
4. Height:
5. Weight:
6. Occupation: (a) Service holder. (b) Business (c) Student (d) Retired e) Others
7. Educational Background: (a) PSC…… (b)JSC…… (c)SSC…….
   (d)Honors……. (e) Masters ……. (f)More….
8. Marital Status: (a) Married (b) Unmarried
9. Number of Family Members:
10. Yearly income:

Disease and medicine:

1. Are you suffering from any diseases? Yes No

If yes (Name of diseases)

……..

2. What kind of medicine you are taking?

…….

……

3. How often you used to visit doctor?.....

4. Tell the name of medicine that you are taking without prescription? …….

……..

5. Do you maintain the proper schedule of taking the medicines given by your doctor? Yes No

6. Do you know the procedure of taking antibiotic? Yes No

7. Are you aware about antibiotic resistance? Yes No

8. Have you ever taken antibiotic without prescription? Yes No

9. Are you aware about the role of pharmacist while buying medicine? Yes No

10. Who explain you the prescription after purchasing medicine?

a) Pharmacist b) Doctor c) Family person d) Salesman

11. Are you conscious about the expired date of medicine before buy it? Yes No

12. How often you used to take pain killer? a) Randomly b) Very often c) If doctor prescribe

13. How often you used to take anti-ulcerant? a) Randomly b) Very often c) If doctor prescribe

14. How often you used to take slipping pill? a) Randomly b) Very often c) If doctor prescribe

15Are you aware about the side effect of medicine? Yes No

16. Do you have any problem in vision and do you use spectacle? Yes No
If yes (Name the problem)
……

17. Do you have any problem in hearing? Yes No
If yes (What kind of problem)
…….

18. Do you have any habit of: a) Smoking b) Alcohol c) Betle leaf d) Tobaco/ Gul e) Tea

19. How many times you take meal? a) 2 b) 3 c) 4 d) more

20. What kind of food you have in your breakfast……..
…….

21. What kind of food you have in your lunch?
……..
…….

22. What kind of food you have in your dinner? ……..

……

23. Do you seek for best quality medicine while purchasing rather than doctors choice? Yes No

Chapter 4

Objective of the study

The main objectives of the study are:

1. To understand the medicine consumption scenario among different age groups in Bangladesh
2. To ensure whether patients are aware about safe use of medicine
3. Are the people careful about safe antibiotic use?
4. Disease condition among different age group of people.
5. Food habit of different ages of people.
6. Consumption of OTC medicine trend in Bangladesh
7. Conscious about health among the people of Bangladesh

Chapter 5

Results & Discussions

Results and Discussions:

5.1 Number of people according to Age and Gender

Table 1: Number of people according to Age and Gender

Age(year)	Number of Patient
1–10	0
10-20	14
20-30	11
30-40	9
40-50	13
50-60	13
60-70	9
70-80	2
Gender	
Male	40
Female	30

Discussion:

The highest number of people was seen in the age group of 10-20 years. The second highest number of people was found in the age group of 40-50 years and 50-60 years.

5.2 Classification of people based on Height:

Table 2: Classification of people based on Height

Height	Number of People
4.5-5	9
5-5.5	32
5.5-6	29
6+	0

Discussion:

The highest number of people was found in the height range of 5-5.5 feet whereas the second highest was seen in 5.5-6 feet.(Table 2) From here we can say that majority of the people in this area are medium heighted.

5.3 Number of people based on Body Weight:

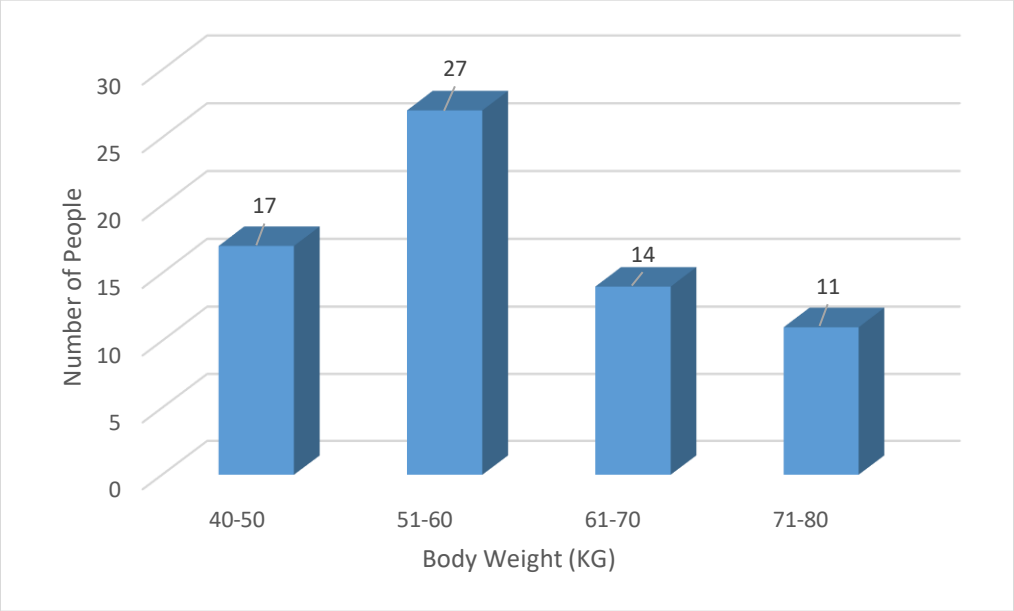


Figure 1: Number of people based on Body Weight

Discussion:

Total 27 people were found whose body weight ranged in 51-60 kg which was the highest among all. The second highest number of people was seen in 40-50 kg group.

5.4 Educational Background of the People:

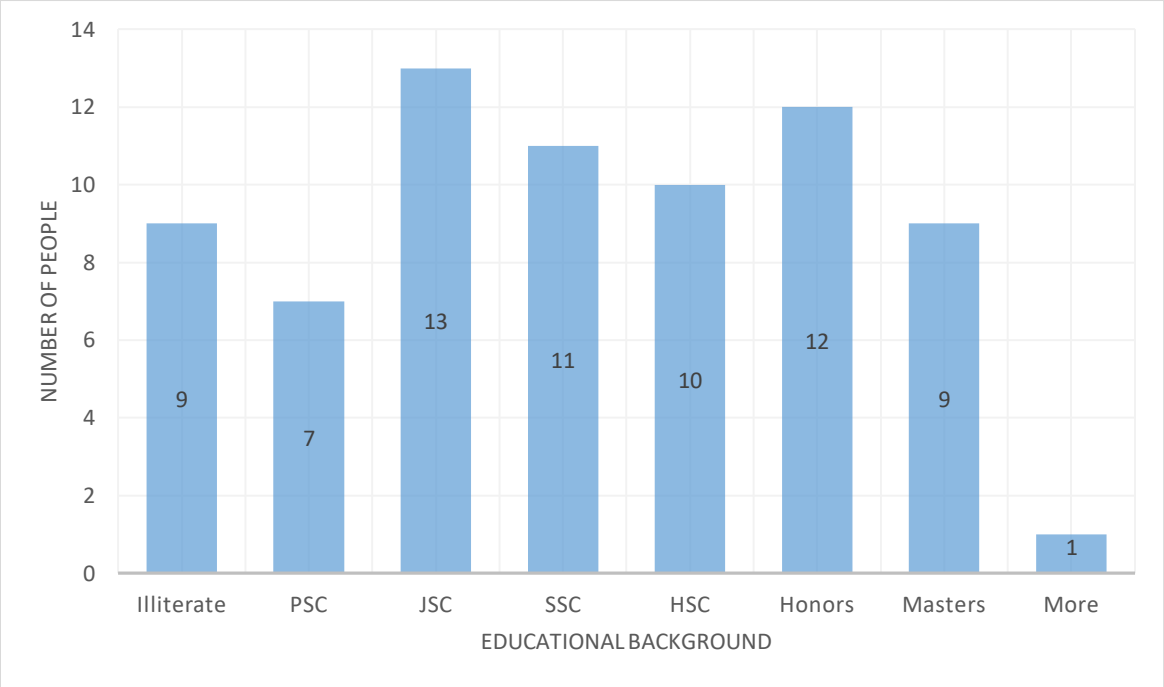


Figure 2: Educational Background of the People

Discussion:

The above figure demonstrated that most of the people in our study were literate. Around 13 people passed at least JSC that was the highest. Besides, it is a good sign that this second most number of educated people was found the class of Honers. Among all the people total 9 people were identified who don't have any certified educational backround.

5.5 Differentiation of People based on Occupation:

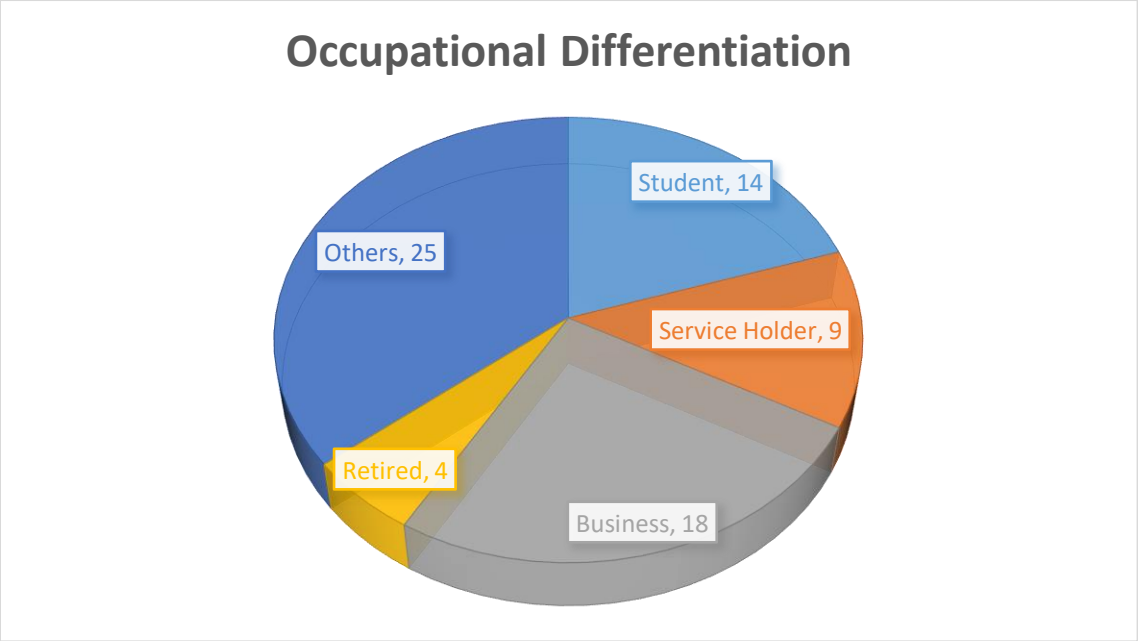


Figure 3: Differentiation of People based on Occupation

Discussion:

Among different types of occupation 18 people were found whose occupation was business. Furthermore, total 25 people were found in the category of other occupation .(figure 3)

Marital Status of the People:

Table 3: Marital Status of the People

Marital Status	Number of the People
Married	54
Unmarried	16

Number of Family Member:

Table 4: Number of Family Member

SURVEY FOR PREVALENCE OF MEDICINE CONSUMPTION AND DISEASES IN DIFFERENT AGE GROUPS IN RURAL AREAS IN BANGLADESH	
Family Member	**Number**
2	1
3-5	44
5-8	20
9+	5

5.6 Percentage of Yearly Income of the People:

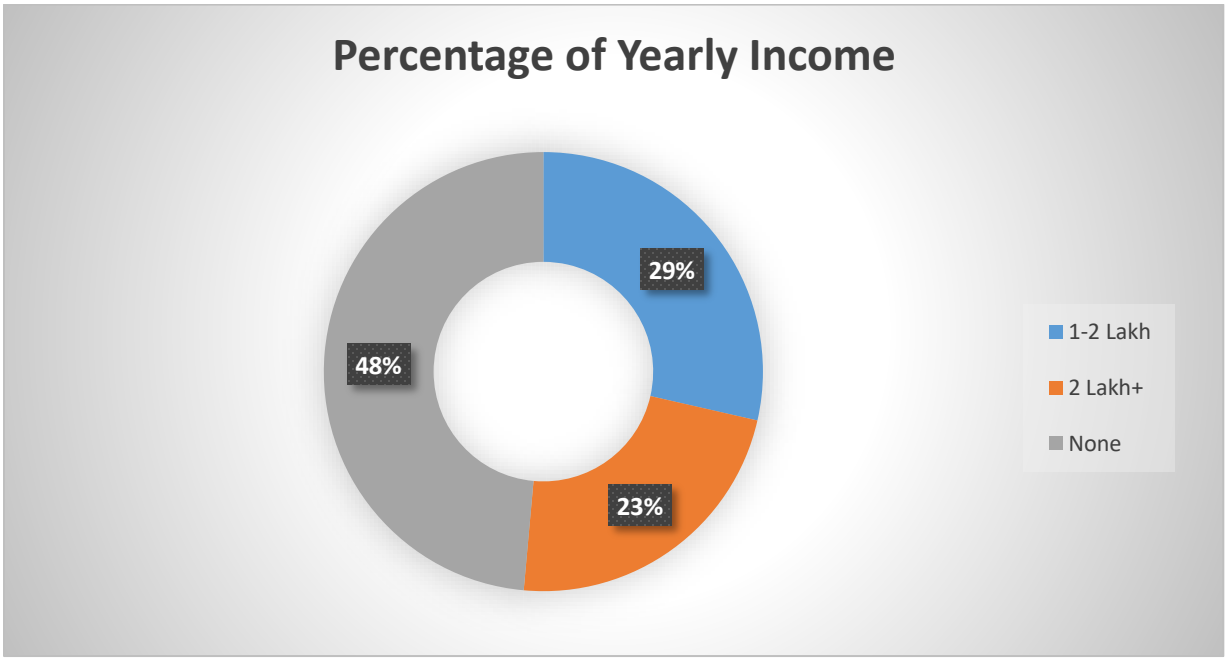


Figure 4: Percentage of Yearly Income

Discussion:

Figure 4 clearly should that 48% people in our study don't earn any money. Among all the people 29% people earned 1-2 lakh per year.

Maintenance of taking prescribed Medicine as per Schedule:

Yes	70
No	0

Knowledge about the Procedure of taking Antibiotic:

Yes	19
No	51

Awareness about Antibiotic Resistance:

Yes	46
No	24

Practice of taking Antibiotic by the People:

Practice of taking Antibiotic	Number of People
Without Prescription	29
With Prescription	41

Awareness about the role of Pharmacist while buying Medicine:

Yes	29
No	41

5.7 Who explain about the role of Pharmacist while buying Medicine:

Table 5: Source of getting information about the role of Pharmacist

Source	Number of People
Pharmacist	2
Doctor	1
Family	14
Salesman	34
Others	19

Discussion:

Among 70 people, 34 people said that they got the knowledge about the role of pharmacist from salesman whereas 19 and 14 people informed about the role of pharmacist from others, and family.

5.8 Pattern of Taking Pain Killer:

Table 6: Pattern of Taking Pain Killer, Anti-ulcerant, and Sleeping Pill

Pattern	Pain Killer	Anti-ulcerant	Sleeping Pill
Randomly	-	-	-
Very often	30	44	11
If Doctor prescribed	40	26	33

Discussion:

In case of painkiller the highest people took this medicine when doctor prescribed the drug. The highest number of people took anti-ulcerant whenever doctor prescribed it. Beside, most of the people carefully took sleeping pill when it is prescribed by the doctor.

Awareness about side effect of medicine:

Yes	59
No	11

Prevalence of problem in Eye and Hearing:

Table 7: Prevalence of problem in Eye and Hearing

Problem	Eye Disease	Hearing problem
Yes	17	2
No	53	68

Discussion:

It is a good sign that most of the people in our study did not have any eye disease and result as almost same in case of hearing problem.

Frequency of taking meal on daily basis:

Table 8: Frequency of taking meal on daily basis

Frequency	Number
2	None
3	69
4	1
More	None

Discussion:

The highest number of people have meal 3 times a day and the number of people were 69. Only 1 people was found who takes meal four times a day

5.9 Habit of taking addicted product:

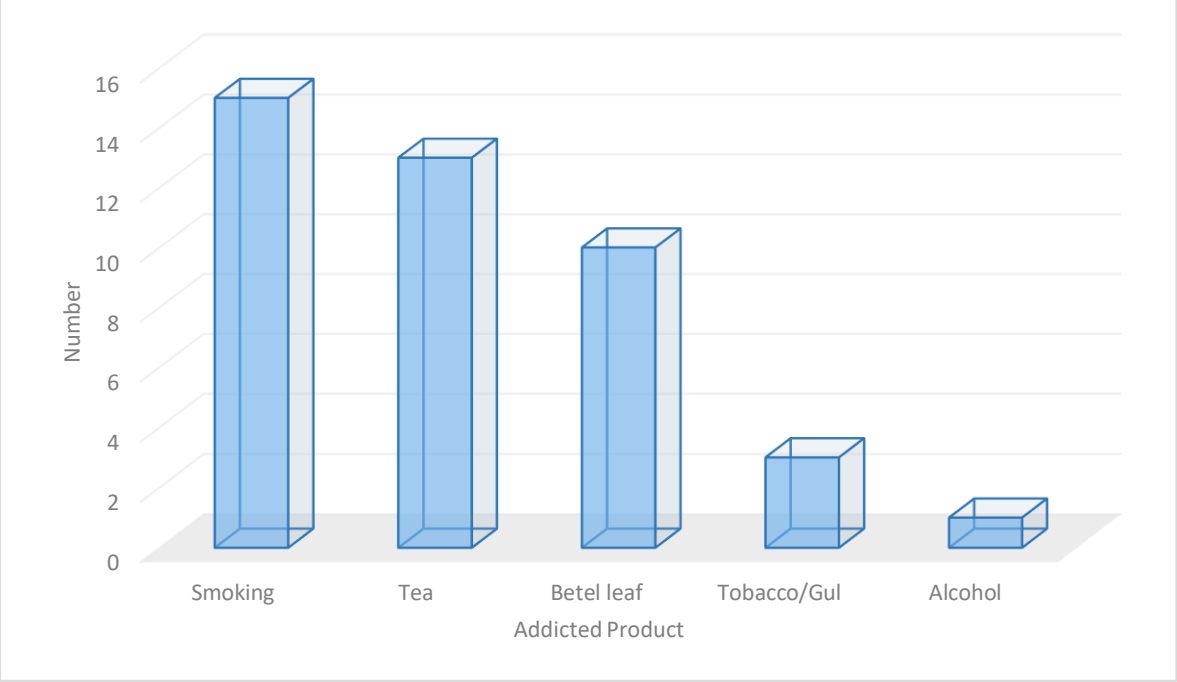


Figure 5: Habit of taking addicted product

Discussion:

Tobacco smoking consists of drawing into the mouth, and usually the lungs, smoke from burning tobacco.(39) The type of product smoked is most commonly cigarettes, but can also include cigarillos, cigars, pipes or water pipes.(40) The highest number of people found in our study was addicted to smoking. Only 1 people was addicted to Alcohol.

Chapter 6

Conclusions

Conclusions:

From the above study conducted over 70 people we can say that highest number of people was seen in the age group of 10-20 years whose body weight ranged in 51-60 kg. It also demonstrated that most of the people in our study were literate where around 13 people passed at least JSC that was the highest. Among different types of occupation the highest percentage was found in the category of other occupation.(figure 3) Figure 4 clearly should that 48% people in our study don't earn any money. It is a good sign that most of the people in our study did not have any eye disease and result was almost same in case of hearing problem. It was a positive sign people took different medicine when doctor prescribed the medicine. Addiction to smoking and tobacco was a bad sign that can harm to the people by its severe side effects.

Chapter 7

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