

Out of pocket payment for diabetes mellitus in a public hospital of Karachi

Syed Muhammad Ibrahim Hashmi,¹ Shiraz Shaikh,² Sana Tanzil,³ Lubna Baig,⁴ Nimra Shahid,⁵ Amna Abdullah⁶

Abstract

Objectives: To estimate the out-of-pocket payment on routine management of type 2 diabetes in patients attending a public-sector facility.

Methods: The cross-sectional study was conducted from December 2016 to May 2017 at Jinnah Postgraduate Medical Centre, Karachi, and comprised of persons with type 2 diabetes. A pretested questionnaire was administered to collect data from the patients. Comparisons of average out-of-pocket expenditure were done across different groups on the basis of gender, education, monthly income and duration of disease. SPSS 20 was used for data analysis.

Results: Of the 336 subjects, 178(53%) were males and 158(47%) were females. Overall mean age was 52.20+/-12.64 years, and 170(50.6%) were illiterate. The monthly mean cost on diabetes care was PKR2227±2217.70. People with academic level matriculation or higher spent more on the disease ($p<0.001$). Expenditure increased with the increase in number of years of disease ($p<0.001$). Participants with income of less than PKR15000 spent higher percentage of their income compared to the participants earning more ($p<0.001$)

Conclusion: High out-of-pocket expenditure was incurred by people with diabetes. The coverage of social security nets and individual insurance should be broadened to help improve diabetes management.

Keywords: Out of pocket, Diabetes, Public hospital, Non-communicable disease. (JPMA 69: 1864; 2019)

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Introduction

The World Health Organisation (WHO) report of 2011 stated that 12.9 million inhabitants of the world suffer from diabetes mellitus (DM) and the number is on a continuous rise.¹ The monetary loss due to the disease is expected to increase from United States dollar (\$)113bn in 2009 to \$336bn in 2030 with a cumulative output loss of \$47 trillion globally over the next two decades.^{2,3} It is expected that there will be a staggering 69% increase in numbers of adults with DM in developing countries and a 20% increase in developed countries between the years 2010 and 2030.

In Pakistan, the non-communicable diseases (NCDs) account for around 55% of overall deaths in the country.² According to the report by Oxford poverty and human development initiative (OPHI) in 2017, 44.2% of population in Pakistan was poor among whom 23.7% were in severe poverty and 20.7% in destitute poverty bracket. Moreover, 15.1% were vulnerable to poverty.⁴ Few state-run health insurance schemes have been introduced like Waseela-e-Sehat programme under the

umbrella of Benazir Income Support Programme (BISP) having insurance coverage up to Pak rupee (PKR) 25,000 per family per annum⁵ and Prime Minister's National Health Programme with Pakistan Sehat (health) Card providing insurance cover for up to PKR50,000 for inpatient services, maternity cover, fractures and injuries, and up to 250,000 for heart diseases, diabetes coverage, organ failure and cancers.⁶ However, the empanelled hospitals are very limited and the coverage is not available countrywide. In effect, health coverage and insurance for the low socioeconomic group is not sufficient.

Diabetes being one of the prevalent NCDs in Pakistan showing a rising trend is not only a problem for patients, physicians and healthcare staff, but its repercussions can be heard in other sectors like finance, education, population welfare and so on. As a matter of fact, once the disease develops, the cost for its management surpasses the cost and effort used for prevention, if done at the right time.

There have been a few studies done relating to the out-of-pocket (OOP) burden estimation in Pakistan.⁷⁻⁹ One study was conducted specifically to assess the cost of diabetes care in an outpatient care clinic.¹⁰ However, these studies lack information regarding public-sector hospitals and are more than five years old. The current study was planned to estimate the average OOP expenditure on the DM management irrespective of the

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treatment regimen in use.

Subjects and Methods

The cross-sectional study was conducted from December 2016 to May 2017 at Jinnah Postgraduate Medical Centre (JPMC), Karachi, and comprised type 2 DM (T2DM) patients coming to the outpatient department (OPD). The hospital not only caters to people coming from all over Karachi but also provides care to many coming from the rural areas. After approval from the ethics review board of Jinnah Sindh Medical University (JSMU), Karachi, the sample size was calculated using WHO software¹¹ at an expected standard deviation (SD) of 324, as reported by a previous local study,¹⁰ confidence level of 95% and bound on error of 35. Using non-probability convenience sampling, all diagnosed T2DM patients were approached. After written informed consent was obtained from all the enrolled subjects (Annexure-I), they were all interviewed while they waited for their turn to be consulted in a separate room. The questionnaire comprised questions in both English and Urdu languages for convenience, although the questions were mostly asked in Urdu. The data collectors had good command on both the languages since it was one of the essentials while hiring them.

OOP expenditure was defined as charges or fees for medical consultation, investigation, medication and travelling to get the treatment paid with one's own money rather than with money from another source.¹² Structured questionnaire (translated into Urdu) was used to obtain detailed information on socio-demographics, occupational characteristics, T2DM history, medication history, income and expenditure history, expenditure details and expenditure source (Annexure-II). The questionnaire was adopted from relevant previous studies.¹⁰

Data collectors were medical students supervised by the principal investigator. After training, the questionnaire was piloted and revised according to feedback provided by data collectors. Data was entered in Microsoft Excel software in the form of numeric codes assigned to different variables. It was analysed using SPSS 20. Descriptive statistics were run for the socio-demographics. Frequencies and percentages were calculated for categorical data while means with SD were calculated for quantitative variables. Differences in average OOP expenditure indifferent groups was analysed using independent t-test for two groups and analysis of variance (ANOVA) for more than two groups. Non-

parametric tests were used if the dependent variable did not meet the assumptions of normality. The percentage of income spent on the disease was calculated by dividing the OOP expenditure by the total income of the participant or the person sponsoring the payment. Differences for average percentage of income spent on the disease were also computed for the groups.

Results

Of the 336 subjects, 178(53%) were males and 158(47%) were females. Overall mean age was 52.20 ± 12.64 years, and 170(50.6%) were illiterate (Table-1). No statistically significant difference was found between the genders in median OOP expenditure ($p=0.335$). OOP expenditure was significantly higher among the more educated ($p<0.001$), the higher income group ($p=0.020$) and those with longer duration of disease ($p<0.001$) (Table-2).

The females spent more of the monthly household

Table-1: Socio-demographic characteristics of the study participants (n=336).

Variable	Percentage(n)
Age	52.20± 12.64
Gender	
Male	47.0 %(158)
Female	53.0 %(178)
Level of Education	
Illiterate	50.6 %(170)
Primary	21.7 %(73)
Matriculate	14.3 %(48)
Intermediate	8.6 %(29)
Graduate	4.8 %(16)
Residence	
Malir	13.7 %(46)
Korangi	33.9 %(114)
East	8.9 %(30)
West	14.9 %(50)
South	20.2 %(68)
Central	8.3 %(28)
Family size	7.86±4.415
Household Monthly Income	22970±14126
Currently Employed	
Yes	31.8 %(107)
No	68.2 %(229)
Source of income	
Children	40.2 %(135)
Parents	0.6 %(2)
Pension	6.0 %(20)
Self	31.8 %(107)
Siblings	1.2 %(4)
Spouse	20.2 %(68)

Table-2: Comparison of median out of pocket expenditure (PKR) on the disease among different groups (n=336).

Variables	Median (IQR)	p-value
Gender		
Male (n=158)	807.20(2635)	0.335
Female (n=178)	805.00(3272)	
Educational Status		
Illiterate (n=170)	640.00(504)	<0.001
Primary (n=73)	2102.40(3102)	
Matriculate and above (n=93)	5080.00(4939)	
Household size		
<5 (n=94)	1300.50(4161)	0.026
6-8 (n=151)	838.40(1790)	
9 and above (n=91)	1135.00(3190)	
Total Monthly Income		
<15000 (n=187)	850.40(2465)	0.02
>15000 (n=149)	1125.80(3554)	
Age		
<40 (n=53)	874.40(2256)	0.614
40-60 (n=172)	967.70(3446)	
>60 (n=111)	1125.20(3077)	
Occupation Category		
Unskilled Labor (n=50)	828.60(1969)	0.651
Skilled Labour (n=57)	775.00(3655)	
Employment Status		
Yes (n=107)	807.20(2635)	0.017
No (n=229)	1125.20(3305)	
Years of Disease		
< 6 years (n=121)	775.00(1359)	<0.001
6-13 years (n=119)	1040.00(3150)	
>13 years (n=96)	2190.00(4121)	

PKR: Pak Rupee.

Table-3: Comparison of Median percentage of Income spent on the disease between different groups (n=336).

Variables	Median of Percentage of income: Median (IQR)	P-value
Gender		
Male (n=158)	5.05 (11.62)	0.016
Female (n=178)	7.30 (14.49)	
Educational Status		
Illiterate (n=170)	3.6(4.67)	<0.001
Primary (n=73)	10.5 (15.91)	
Matriculate& above (n=93)	17.8 (21.73)	
Household size		
<5 (n=94)	9.09 (14.97)	0.009
6-8 (n=151)	5.08 (11.32)	
9 and above (n=91)	6.36 (12.86)	
Total Monthly Income		
<15000 (n=187)	7.87 (20.75)	<0.001
>15000 (n=149)	3.80 (11.07)	
Age		
<40 (n=53)	6.00(12.34)	0.644
40-60 (n=172)	5.61(12.92)	
>60 (n=111)	7.1 (12.49)	
Occupation Category		
Unskilled Labour (n=50)	6.00(11.62)	0.016
Skilled Labour (n=57)	3.83(11.04)	
Employment Status		
Yes (n=107)	4.71(10.42)	0.1
No (n=229)	7.17(15.47)	
Years of Disease		
< 6 years (n=121)	5.05(10.35)	0.019
6-13 years (n=119)	7.10(15.83)	
>13 years (n=96)	8.93(18.70)	

IQR: Interquartile range.

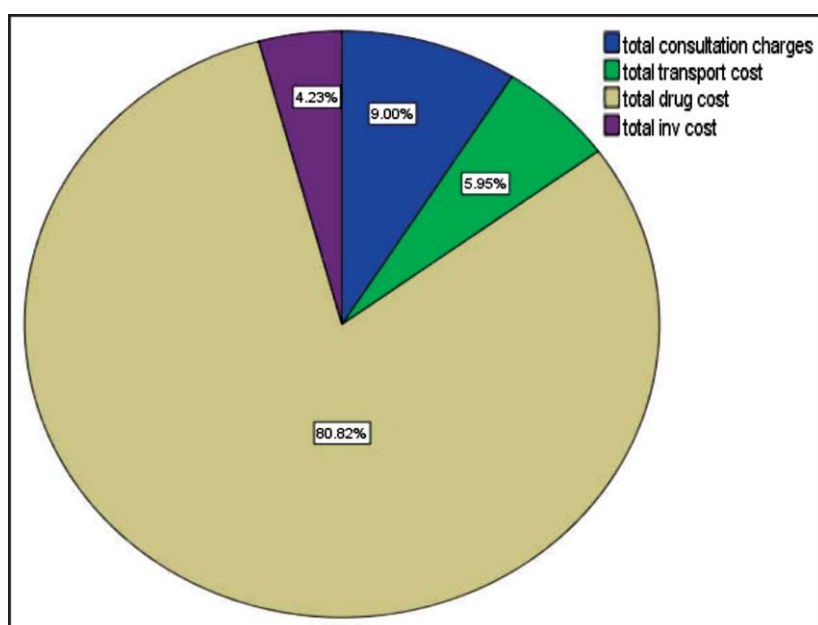


Figure-1: Breakup of out-of-pocket expenditure on the disease (n=336).

income on T2DM management than males (p=0.016). The percentage of income spent increased with the level of education (p=<0.001). Large family size meant less percentage of income spent on the disease (p=0.009). People earning PKR15,000 or less per month spent higher percentage of income on the disease compared to people earning >PKR15,000 per month (p<0.001). The percentage spent also increased with duration of the disease (p=0.019) (Table-3).

Overall, the mean total OOP expenditure on diabetes management was PKR 2227.11±2217.70 per month. Major heads of expenditure included medicines, consultation, transport and laboratory investigations (Figure-1).

Besides, 220(65.48%) participants were dependent on others to pay for their

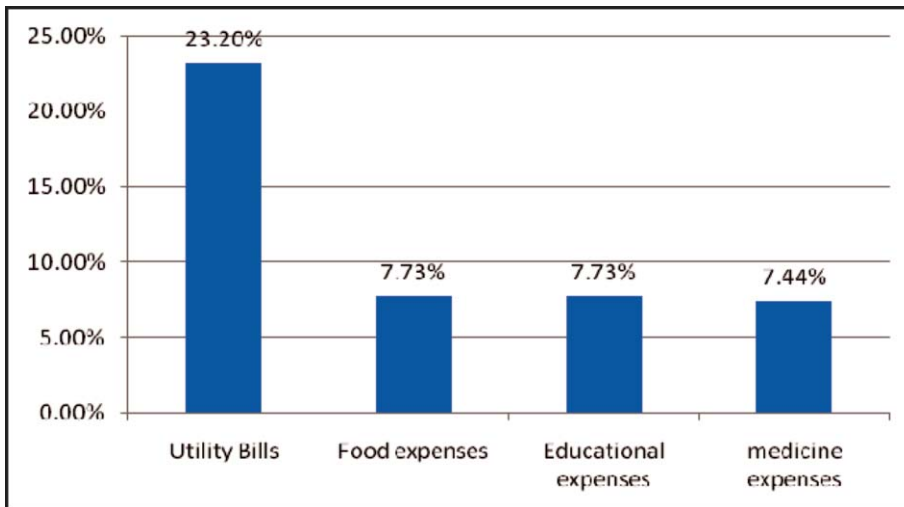


Figure-2: Prominent types of basic needs compromised due to out-of-pocket expenditure on the disease (n=101).

treatment and 107(32%) could not cover the disease expenditure and had to borrow money. Basic necessities compromised due to OOP expenditure on T2DM management were utility bills, education and food expenses (Figure-2).

Discussion

The study found that on an average, the participants spent around PKR2227.11(\$21.7) per month on the management of diabetes which makes around an average of 9.7% of their monthly income. These findings show an increase over numbers reported in 2007 when the mean direct cost of diabetes was PKR965 per month.¹⁰ This increase may be explained by inflationary trends. Another study done in the private sector in India found that around 17% of annual household income was spent on diabetes.⁹ Since the current study was done in a government hospital, most of the services were either subsidised or were free of cost. Moreover, it also did not cover patients of type 1 diabetes which also may have contributed to a lower percentage of income spent on the disease.

The major cost item was medicines, costing a high average of 80.82%, which is consistent with a previous study in Pakistan in which the most (46%) was spent on medicines.

These findings can be explained by the service delivery issues at public hospitals where drugs are not available to patients and they have to buy all or most of their medicines themselves. However, the cost incurred on laboratory investigations was around 4.23% which is considerably less than what was depicted in an earlier

study in which about 32% of the cost went to investigations alone.¹⁰ This finding can be supported by the fact that in government hospitals, the cost of laboratory investigation is highly subsidised. Moreover, uncomplicated diabetes usually does not require extensive investigations on a frequent basis. Nevertheless, the current study found that 9% of expenditure was related to consultation. The reported spending on consultation by patients presenting to public health facility point towards parallel utilisation of the private sector by these patients possibly to obtain clinical opinion from another doctor or maybe in cases

where emergency care or when opinion of a private practitioner with specific expertise is required. Moreover, relatively higher treatment expenditure was reported by the participants with education of matriculate and above, who spent around 17.89% of their monthly income on disease management. It indicates that as the level of education increased, there was an increase in awareness about the disease and affordability, leading to better compliance of taking medicines and opting for investigations. As shown in a 2007 study done in India, as the education level increased, people tended to spend more on the disease and, hence, had better compliance for management of disease.¹³ Furthermore, with the increase in income, people might also be going for expensive medicine and choosing private laboratories. Family size was found to be inversely proportional to expenditure on disease which can be explained by higher affordability of relatively smaller families. A study done on Mexican-Americans also supports the finding as it reported that smaller family size was associated with better self-care for diabetes.¹⁴

OOP expenditure was higher as duration of disease and complications increased. A study done in France reported that as duration of the disease increased, patients tended to move from single therapy to either double, triple or insulin therapy which directly increased their cost. Furthermore, duration also increased the number of co-morbid, leading to as much as 86% increase in the total OOP expenditure on the disease.¹⁵

The current study found that the participants with income <PKR15,000 per month had to spend higher percentage of their income. This indicates that poor are more likely to

face the economic burden of the disease. A study in India found that the poorest households tended to spend as much as seven times more than rich household members on the management of diabetes.¹³ Different local and global studies also substantiate these findings related to huge impact of high OOP expenditure on all socioeconomic classes among whom the poor quartile is the most affected.^{9,10,16,17} Moreover, insurance coverage for the poorest quartiles is much lower than relatively higher income groups. For example, in a study conducted in India, only 6.4% urban low-income group received medical reimbursement compared to 21.3% in the high income group.¹³ Issues related to insurance coverage for the poor are similar in Pakistan as only one-third of expenditure on health is contributed by the government and insurance, while two-third of expenditure is OOP. Few state-run health insurance schemes have been introduced, like the Waseela-e-Sehat under BISP(5) and the Pakistan Sehat Card.⁶ However, the empanelled hospitals (those included in the list of providers by the government) are very limited and the coverage is not available countrywide. The issues in these insurance schemes are mostly compounded by inadequate allocation of the money, late disbursements, corruption and lack of trained staff who can utilise the funds appropriately.

This calls for a mandatory insurance cover for all the socioeconomic classes with poorer classes being on high priority.

In our study, 32% participants were so poor that they had to borrow money for the treatment of diabetes. The results are almost identical to the study done in India showing people had to borrow as much as 35% for covering the cost of management of diabetes.⁹ Moreover, diabetes not only has a direct economic impact, but also has a huge indirect impact as it leads to loss of huge amount of workforce which is in their productive years which, in turn, further increases the economic burden on the family.^{13,16} The current study also explored the most compromised basic need due to expenditure on disease. Most of the participants were unable to pay the utility bills which was the most compromised need followed by educational and food expenses. Other studies have also documented indirect costs of diabetes incurring informal economic losses.^{10,18}

The current study specifically aimed at estimating OOP expenditure on the management of T2DM among patients presenting at a public-sector, tertiary care hospital. OOP expenditure was higher among diabetics having disease <6 years of duration compared to those having it for 6-13 years; possibly due to increased co-

morbid. This suggests that early detection and treatment of DM can reduce related economic burden on patients and their families.

While the study attempted to explore a wide range of aspects related to OOP expenditure on diabetes, it was conducted on a small scale at a single centre due to limited research funds. The data would be more meaningful if compared with data related to private-sector hospitals. Moreover, the study only represents urban population, which, again, is a limitation. The overall costs on diabetes may have been underestimated because type 1 diabetics were not enrolled and inpatient cost was not evaluated. Indirect costs were also not part of methodological assessment. Despite the limitations that would have underestimated the average OOP expenditure, the effects observed on even underestimated costs were quite remarkable which is an alarming sign.

The current study raised important questions on the effect of OOP expenditure on management of a chronic condition like diabetes which is often an under-researched area. The issues raised should further be investigated on a larger scale and with improved methodology for a more in-depth understanding of the economic impact of chronic diseases in Pakistan. Furthermore, policies to prevent the occurrence of DM should be put in place to lower the burden of disease in the general population so that the expenditure on disease decreases in the long run. There should also be a universal model for insurance which may cover the whole population so that the finances don't continue obscuring the care for diabetes.

Conclusion

High OOP expenditure was incurred by people diabetics. The coverage of social security nets and individual insurance should be broadened to help improve diabetes management.

Disclaimer: None.

Conflict of Interest: None.

Source of Funding: Research Department of JSMU, Karachi.

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Annexure I: Informed Consent Form

رضا مندی کا فارم

Title of study:

تحقیق کا نام:

Out of pocket payment of Diabetes Mellitus in a Public Hospital of Karachi.

سرکاری ہسپتال میں ذیابیطیس (شوگر) کے علاج میں جیب سے خرچ کا شمار

Principal investigator:

تحقیق کرنے والے کا نام:

Dr. Syed Muhammad Ibrahim Hashmi

ڈاکٹر سید محمد ابراہیم ہاشمی

Institute:

ادارہ

APPNA Institute of Public Health,
Jinnah Sindh Medical University Karachi.

اپنا انسٹیٹیوٹ آف پبلک ہیلتھ جناح سندھ میڈیکل یونیورسٹی کراچی

Introduction:

تعارف:

I am Dr. Syed Muhammad Ibrahim Hashmi from APPNA Institute of Public Health, Jinnah Sindh Medical University, doing a research on Out of pocket payment of Diabetes Mellitus in Public Hospitals of Karachi. I would like to invite you to join this research study.

میں ڈاکٹر سید محمد ابراہیم ہاشمی، اپنا انسٹیٹیوٹ آف پبلک ہیلتھ، جناح سندھ میڈیکل یونیورسٹی سے ایک تحقیق کر رہا ہوں جو ذیابیطیس (شوگر) کے علاج میں اٹھنے والے اخراجات جو اپنی جیب سے ادا کیے جاتے ہیں ان سے متعلق ہے۔ یہ تحقیق جناح ہسپتال میں کی جائے گی۔ میں اس میں آپ کو شامل ہونے کی دعوت دیتا ہوں۔

Purpose of this research study:

تحقیق کا مقصد:

This study is aimed at assessing the out of pocket expenditures by people visiting public healthcare facility for the management of Diabetes Mellitus in Karachi.

اس تحقیق کے ذریعے ذیابیطیس (شوگر) پر اٹھنے والے اخراجات کا تخمینہ لگایا جائے گا ان لوگوں میں جو اپنی بیماری کا علاج سرکاری ہسپتال سے کرواتے ہیں۔

Procedure:

طریقہ کار:

This study will comprise of a questionnaire. We will also ask you some questions about your socio-demographics, occupation and history symptoms related to expenditure on Diabetes. It will take 20-30 minutes to complete the questionnaire.

یہ تحقیق ایک سوال نامہ پر مشتمل ہے۔ ہم آپ سے کچھ سوالات معاشی حالات، پیشے اور مرض کے متعلق پوچھیں گے۔ اس عمل میں آپ کے (20) سے (30) منٹ کا دورانیہ درکار ہوگا۔

Possible risks or benefits:

فوائد و نقصانات:

There is no risk involved in this study except your valuable time. You will not get any monetary incentive for participating in the study.

اس تحقیق میں آپ کے وقت کے علاوہ کسی قسم کا ذاتی نقصان نہیں ہے۔ اس تحقیق میں شامل ہونے کے عوض آپ کو کسی قسم کی رقم ادا نہیں کی جائے گی۔

Right of refusal to participate and withdrawal:

منع کرنے اور چھوڑنے کا حق

You are free to choose to participate in the study. You may also withdraw any time from the study. You may opt not to answer any question with which you are not comfortable with.

آپ اس تحقیق میں شامل ہونے کے لیے مکمل طور پر خود مختار ہیں۔ آپ کسی بھی وقت تحقیق چھوڑ سکتے ہیں اور آپ کو ٹیبھی ایسا سو الجسکا جو ابدینے میں مطمئن نہ ہونے سے منع کر سکتے ہیں۔

Confidentiality:

رازداری:

The information provided by you will remain confidential. Nobody except principal investigator will have access to it. Your name and identity will also not be disclosed at any time. However, the data may be seen by Ethical review committee and may be published in journal and elsewhere without giving your name or disclosing your identity.

جو معلومات آپ فراہم کریں گے اس کو خفیہ رکھا جائے گا۔ سوائے محقق کے، کسی کو اس تک پہنچ نہیں ہو گی۔ آپ کا نام اور شناخت بھی کسی کو کسی وقت بھی ظاہر نہیں کی جائے گی البتہ جو مواد اکٹھا کیا جائے گا وہ باخلاقیت کی کمیٹیاں دیکھ سکتی ہیں اور اس کو کسی بیجریڈ میں شامل کیا جاسکتا ہے مگر اس صورت میں بھی آپ کی شناخت کو خفیہ رکھا جائے گا۔

Available Sources of Information:

معلومات کے ذرائع:

If you have any further questions, you may contact Principal Investigator, APPNA Institute of Public Health, Jinnah Sindh Medical University on following phone number 03333299704.

اگر آپ کو مزید معلومات درکار ہیں تو آپ محقق، اپنا انسٹیٹیوٹ آف پبلک ہیلتھ، جناح سندھ میڈیکل یونیورسٹی سے مندرجہ ذیل فون نمبر پر رابطہ کر سکتے ہیں۔

Authorization:

اجازت نامہ

I have read and understood this consent form. I undertake that the importance and the methods of the research study have been explained to me and I voluntarily agree to participate in it after knowing all the terms and conditions. I understand that my consent does not take away any legal rights in case of negligence or other legal fault of anyone who is involved in this study. I further understand that nothing in this consent form is intended to replace any applicable Federal, state, or local laws.

میں نے اس فارم کو مکمل طور پر پڑھا اور سمجھ لیا ہے میں اس بات کا اقرار کرتا/کرتی ہوں کہ اس تحقیق کا فائدہ اور طریقہ کار مجھے مکمل طور پر سمجھا دیا گیا ہے اور میں اس تحقیق میں رضاکارانہ طور پر اس کو جاننے کے بعد شامل ہو رہا/رہی ہوں۔ میں اس بات کو بھی سمجھتا/سمجھتی ہوں کہ میری اجازت، مجھ سے میرا قانونی حق جو اس تحقیق میں ہو چھین نہیں رہی۔ مزید مینہ بھی سمجھت/سمجھتی ہوں کہ اس اجازت نامہ میں کوئی بھی بات سرکاری، مرکزی اور علاقائی قانون کے خلاف نہیں ہے۔

Participant's Name (Printed or Typed):

دستخط کنندہ کا نام/دستخط:

Date: تاریخ:

Annexure II: Questionnaire.

ID NO:				
S.#	Question سوال	Code کوڈ	Skip Pattern	Answer جوابات
Section A: Socio-demographic variables حصہ اول (الف) بنیادی اور سماجی شماریات				
1.	Age عمر	_____ years سال		
2.	Gender صنف	1. Male مرد 2. Female خواتین		
3.	Religion مذہب	1. Islam اسلام 2. Hinduism ہندو 3. Christianity کرسچن 4. Any other کوئی اور		
4.	What is the level of your education? آپ نے کتنی تعلیم حاصل کی ہے؟	1. Illiterate ان پڑھ 2. Primary پرائمری 3. Matriculate میٹرک 4. Intermediate انٹر میڈیٹ 5. Graduate گریجویٹ		
5.	Address گھر کا پتہ			
6.	How many house-hold members do you have? آپ کے گھر میں کتنے افراد رہائش پذیر ہیں؟			
7.	What is your total monthly income? آپ کی کل ماہانہ آمدنی کتنی ہے؟	1. Self خود کی 2. Spouse شوہر/بیوی کی 3. Children بچوں کی 4. Others مزید		
Section B: Occupational History حصہ (ب) پیشہ کی معلومات				
8.	Are you currently Employed کیا آپ فی الحال کام کر رہے ہیں؟	1. Yes ہاں 2. No نہیں	Go Q: 10 if No اگر ہاں تو سوال نمبر 10 پر جائیں	
9.	If Yes: What is the Occupation اگر ہاں تو پیشہ	Specify وضاحت کریں		
10.	If No: What is the source of Income اگر نہیں تو آمدن کا ذریعہ			
11.	For how many years have you been working in this profession?	_____		

	آپ کتنے سال سے اس پیشے سے منسلک ہیں؟			
12.	How many hours do you work in a day? آپ دن میں کتنے گھنٹے کام کرتے ہیں؟	_____		
13.	Who pays for the treatment of DM آپ کے ذیابیطیس کے علاج کا خرچ کون برداشت کرتا ہے؟	1. Self خود 2. Other(explain) دیگر وضاحت کریں _____		
14.	How much is paid by that person خرچ کرنے والا شخص کتنی رقم ادا کرتا ہے	1. Amount in PKR رقم (پاکستانی روپے میں) 2. Percentage of total کل رقم کا کتنا فیصد amount _____		
15.	Is the amount loan or aid? کیا یہ رقم امداد کی مد میں ادا کی جاتی ہے یا قرض کی مد میں؟	1. Loan قرض 2. Aid امداد		
Section C: Diabetic History حصہ (ج): ذیابیطیس کی معلومات				
16.	What type of Diabetes do you have? آپ کو کس قسم کی ذیابیطیس ہے؟	1. Type 1 قسم 1 2. Type 2 قسم 2		
17.	When did you first come to know that you have Diabetes? آپ کو پہلی بار کب اپنی بیماری (ذیابیطیس) کا علم ہوا؟	In Years _____ سالوں میں		
18.	How many of your family members are affected by diabetes? آپ کے خاندان کے کتنے لوگ (ذیابیطیس) سے متاثر ہیں؟	In numbers _____ تعداد		
19.	Do you have any co morbid besides diabetes? کیا آپ کو ذیابیطیس کے علاوہ کوئی اور دائمی بیماری لاحق ہے؟	1. No نہیں 2. Yes (explain) ہاں (وضاحت کریں) _____ _____		
20.	Which of the following complications are you suffering from (Tick all appropriate boxes) مندرجہ ذیل میں سے کون کون سی پیچیدگیوں میں مبتلا ہیں؟ ان کو نشان زدہ کریں	1. Nephropathy 1. گردے کا مرض 2. Neuropathy 2. عصبی مرض 3. Retinopathy 3. ریٹینا کا غیر سوزشی مرض 4. Vasculopathy 4. نس کا مرض		

Section D:		حصہ (د)		
22. Cost of Medications ادویات کی قیمت				
21.	What is the treatment regimen you are currently following for the disease? اپنے مرض کے علاج کے لیے آپ آج کل کون سا طریقہ کار استعمال کر رہے ہیں؟	1.No medicine 2.Oral medicines 3.Subcutaneous injections 4.Combination of the above 5.Others (specify) 1. _____	1.کچھ نہیں 2.منہ کے ذریعے ادویات 3.جلد کی بالائی تہ میں انجکشن 4. مندرجہ بالا کاملاپ	5- دیگر وضاحت کریں
22.	Drugs/Insulin Used ادویات/انسولین کا استعمال	Brand ساخت	Cost per tablet فی گولی قیمت	Dose خوارک
a)(ا)				
b)(ب)				
c)(ج)				
d)(د)				
e)(ه)				
f)(و)				
g)(ز)				
23. Cost of Investigations مرض کی تفتیش (لیبارٹری ٹیسٹ) کی لاگت				
	Name of Investigation تفتیش (ٹیسٹ) کا نام	Lab from which investigation is done لیبارٹری کا نام جہاں سے ٹیسٹ کرواتے ہیں	Cost per test فی ٹیسٹ لاگت	Frequency کثرت/ تعداد
a)(ا)				
b)(ب)				
c)(ج)				
d)(د)				
e)(ه)				
f)(و)				
g)(ز)				
24. Cost of Consultation and Transport:: مشاورت اور سفر کی لاگت				
	Consultants Visited for DM ذیابیطیس کے علاج کے لیے ماہرین سے مشاورت	Charges per Visit فی ملاقات لاگت	Mode of Transport and Transport Charges ذریعہ سفر اور سفر کے اخراجات	Visits per month ایک ماہ میں کتنی ملاقاتیں ہونیں
		Diabetologist ماہر ذیابیطیس	_____	
		Nephrologist ماہر گردوں کے	_____	
		Ophthalmologist ماہر چشم	_____	
		Neurologist ماہر عصبیات	_____	
		Cardiologist ماہر قلب	_____	

		Any Otherمزید		
		Any otherمزید		
Section E: Expenditure sourceحصہ (۵): اخراجات کا ذریعہ				
25.	From which source does the money comes for the treatment of Diabetes ذیابیطس کے علاج کے لیے ادا کی جانے والی رقم کا ذریعہ	1. Insurance انشورنس 2. Out of Pocket جیب سے 3. Others (specify) دیگر وضاحت کریں		
26.	How much do you pay for the insurance/month آپ انشورنس کی مد میں ماہانہ کتنا خرچ کرتے ہیں؟	_____		
27.	Do you borrow the money for the treatment? کیا آپ علاج کے لیے رقم ادھار لیتے ہیں؟	1. Yes ہاں 2. No نہیں		
28.	If yes then how much اگر ہاں تو کتنے؟	_____		
29.	Do you pay interest on the borrowed money for treatment? کیا آپ ادھار رقم پر سود ادا کرتے ہیں؟	1. Yes ہاں 2. No نہیں		
30.	If yes then how much اگر ہاں تو کتنا	_____		
31.	Have you or your family consumed less food than before due to this disease? کیا آپ یا آپ کے کنبہ میں کسی شخص کی خوراک، اس بیماری کے علاج کے اخراجات کی وجہ سے متاثر ہوئی ہے؟	1. Yes ہاں 2. No نہیں		
32.	Is there any other basic need that has been compromised due to the expense contributed to this disease? کیا ذیابیطس پر اٹھنے والے اخراجات کی وجہ سے آپ کی بنیادی ضروریات پر سمجھوتہ ہوا ہے	1. Yes ہاں 2. No نہیں	If yes then go to q 43 اگر ہاں تو سوال نمبر 33 پر جائیں	
33.	If yes, then what specifically? اگر ہاں تو وضاحت کریں			