

# Thanaal

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DAYA REHABILITATION TRUST (THANAL)  
FEBRUARY, 2023

## **REPORT : THE RELEVANCE OF EARLIEST DETECTION OF LIFESTYLE DISEASES ON RENAL HEALTH**



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## ABOUT US

**THANAL - DAYA REHABILITATION TRUST (DRT):** The world is filled with individuals who face insurmountable challenges in their daily lives. For the most vulnerable population, access to basic necessities such as healthcare, education, and welfare can be extremely limited. This is where Thanal's unique approach of Holistic Rehabilitation for All steps in to make a difference.

Thanal is a non-governmental organization that is committed to working towards health, education, welfare, and development of the most vulnerable population. Thanal believes that rehabilitation should not just be physical, but it should also be emotional, social, and spiritual. Hence, Thanal aims to provide a holistic approach to rehabilitation that focuses on the overall well-being of the individuals.

In terms of health, our approach of holistic rehabilitation for all has set up health clinics in the areas where the most vulnerable populations reside. The clinics provide paraplegia, psychiatry, disability, renal care and socio-psycho support to those who cannot afford it. The organization also has a multidisciplinary team of medical professionals who provide bio-socio-psychological support to those who have suffered trauma or are experiencing mental health issues. DRT works towards the development of the communities in which it operates.

In the area of education, the NGO has set up micro learning centers to provide education to children who would not otherwise have access to it. The learning centers are designed to provide a safe and stimulating environment for children, where they can learn, play, and grow. The organization also runs vocational training programs for adults, which equip them with the necessary skills to find employment and become self-sufficient.

"Welfare" is an integral part of the organization's work. Thanal provides support to families who are struggling to make ends meet. This support includes food, shelter, and clothing, and is designed to help families get back on their feet. Additionally, the NGO provides micro-financing opportunities to those who are looking to start their own businesses.

Thanal and its approach of holistic rehabilitation is dedicated to making a real difference in the lives of the most vulnerable populations. By providing a holistic approach in rehabilitation, the organization is able to help individuals regain their health, education, welfare, and dignity. The young blood of Thanal work towards creating a more just and equitable world.

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**About the Author:** Anju Mathew, Research and Documentation Officer, Daya rehabilitation Trust. Mathew is a public policy and governance expert with a focus on evidence-based policies to improve health outcomes. She holds a Master's degree in Public Policy and Governance and a Bachelor's degree in Economics. Her research focuses on the importance of early identification of lifestyle diseases and renal health problems. In this paper, Mathew proposes evidence-based solutions to improve early detection rates through targeted screening and awareness-raising campaigns. Her work aims to improve the health and wellbeing of individuals and reduce the burden on the renal healthcare system.

**ABSTRACT**

This research paper examines the importance of early detection of renal health diseases for prevention and efficient management of renal health issues. Renal diseases are a growing public health challenge worldwide and can have significant social and economic impacts on individuals and communities. The paper reviews the current literature on renal health diseases and the importance of early detection, including the benefits of early intervention, improved health outcomes, and reduced healthcare costs. The paper also highlights evidence-based approaches for early detection and management of renal diseases, including targeted screening and public awareness campaigns. Additionally, the paper examines the challenges and barriers to early detection and proposes policy recommendations to address these issues. The findings of this research paper demonstrate that early detection of renal health diseases is critical for prevention and efficient management of renal health issues. The paper concludes that policy interventions should focus on increasing access to screening services and awareness-raising campaigns to improve early detection rates and reduce the burden of renal diseases on individuals and society.

***Note: The findings presented in this research are solely based on secondary readings and data collection and do not necessarily reflect the views or opinions of the organization.***

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## **INTRODUCTION**

Global trends in renal health and lifestyle habits have been well documented in recent years, with a focus on early detection, prevention, and maintenance of kidney health. While these trends are important on a global scale, it is also valuable to consider how they are being implemented in specific regions, such as India and Kerala.

In India, the burden of chronic kidney disease (CKD) is significant, with an estimated 17-22% of the population affected. The leading causes of CKD in India are diabetes and hypertension, both of which are closely linked to lifestyle habits such as poor diet and lack of exercise (Jha et al., 2013). In response to this burden, there has been a growing emphasis on prevention and early detection of CKD in India, with programs such as the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) incorporating renal health into its mandate (Ministry of Health and Family Welfare, 2017).

Kerala, a state in southern India, has been particularly proactive in addressing the issue of CKD. The state has implemented a comprehensive program to promote renal health, including initiatives to increase awareness of CKD, improve early detection, and provide better access to treatment (Vijayakumar et al., 2018). Additionally, there has been a strong focus on lifestyle interventions such as improving diet and increasing physical activity.

While these efforts in India and Kerala are encouraging, there is still much work to be done. More research is needed to fully understand the effectiveness of lifestyle interventions for kidney health, and there is a need for increased access to healthcare and resources for individuals with CKD.

Renal care, or kidney health, has become an increasingly important global health trend in recent years. As the incidence of chronic kidney disease (CKD) continues to rise, individuals and healthcare providers alike are becoming more aware of the importance of maintaining healthy kidneys and adopting positive lifestyle habits.

One major trend in renal care is the emphasis on early detection and prevention of CKD. This means that healthcare providers are increasingly encouraging regular kidney function testing for those who may be at risk for the disease, such as those with diabetes or high blood pressure. By catching CKD early, interventions such as medication and lifestyle changes can be implemented to slow the progression of the disease.

Another important trend is the growing awareness of the link between kidney health and lifestyle habits. It is now widely recognized that maintaining a healthy weight, eating a balanced diet, getting regular exercise, and avoiding tobacco and excessive alcohol consumption can all help to prevent CKD and maintain overall kidney health.

In terms of diet, there has been a trend towards the adoption of a plant-based diet for kidney health. Research has shown that a diet rich in fruits, vegetables, and whole grains can help to lower blood pressure and reduce the risk of CKD, while a diet high in animal proteins can have the opposite effect.

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In addition, there is a growing interest in alternative therapies for kidney health, such as acupuncture and herbal remedies. While more research is needed to fully understand the effectiveness of these therapies, many people find them to be a useful complement to traditional medical treatments.

Overall, the trend in renal care is towards a more holistic approach to kidney health, which encompasses not only traditional medical treatments but also lifestyle habits and alternative therapies. By focusing on early detection, prevention, and maintenance of kidney health, individuals can improve their quality of life and reduce the risk of CKD and other kidney-related health problems.

India has lately started to experience an upsurge in a variety of different health-related disorders, regardless of age or gender. According to a Business World survey, lifestyle disorders are considered to be responsible for 61% of fatalities in India. The majority of the time, lifestyle illnesses are caused by a person's habitual everyday activities. If these regular routines are unfavourable, they could encourage someone to live a sedentary lifestyle every day. A number of chronic, non-communicable diseases, some of which can be extremely serious, can also be brought on by such a way of life.

Lifestyle habits play a significant role in the development and progression of kidney diseases. Some of the ways that lifestyle habits can impact kidney health include:

- **Diet:** A diet that is high in salt, sugar, and unhealthy fats can increase the risk of high blood pressure, which is a leading cause of kidney disease. Additionally, a diet that is high in protein can put extra strain on the kidneys.
- **Physical activity:** Lack of physical activity and a sedentary lifestyle can increase the risk of developing high blood pressure, obesity, and diabetes, all of which are risk factors for kidney disease.
- **Smoking:** Smoking is a leading cause of high blood pressure and kidney disease. It also damages the blood vessels in the kidneys, which can impair their ability to filter waste and excess fluid from the body.
- **Alcohol consumption:** Excessive alcohol consumption can cause damage to the kidneys, increase blood pressure, and impair the ability of the kidneys to filter waste and excess fluid from the body.
- **Medications:** Certain medications, such as nonsteroidal anti-inflammatory drugs (NSAIDs) and some over-the-counter pain relievers, can cause kidney damage, particularly when taken in large quantities or over an extended period of time.

In summary, maintaining a healthy lifestyle, including a balanced diet, regular physical activity, avoiding smoking, limiting alcohol consumption, and being mindful of the medications one takes, can help reduce the risk of developing kidney disease.

Some common kidney disorders are:

- Diabetic nephropathy

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- Hypertensive kidney disease
  - Nephrotic syndrome
  - Nephritic syndrome
  - Drug induced kidney disease
  - Acute kidney injury
  - Dialysis and transplantation can also be considered here

### **Chronic kidney disease**

This is a condition where the kidneys irreversibly fail and will need kidney replacement therapy in the form of dialysis and transplantation once the failure becomes extreme. Many of the above disease states, such as diabetes, hypertension, primary diseases of the kidney, and many others, lead to irreversible failure of kidney function. If this is detected early, then certain secondary prevention measures can be instituted to prevent or slow the progression of the disease. Continuous treatment and follow up are needed.

### **Dialysis and transplantation**

Dialysis is a technique to replace the filtering function of the kidney. There are two types of dialysis, peritoneal and hemodialysis. DRT is into Dialysis Units.

### **Need for Kidney Transplantation, Dialysis Units, and Earliest Detection:**

In India, there are several policies and initiatives aimed at improving renal care and addressing the increasing burden of kidney-related diseases. Some of the key policies and programs include:

1. National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS): This program provides comprehensive care for people with chronic diseases, including kidney disease, through a network of public health facilities.
2. National Dialysis Services Program: This program provides free dialysis services to people from economically weaker sections of society who are suffering from end-stage kidney disease.
3. Ayushman Bharat - National Health Protection Mission: This initiative provides health coverage to more than 100 million families in India, including those suffering from kidney disease, and provides financial assistance for their treatment.
4. National Organ and Tissue Transplant Organization (NOTTO): This organization is responsible for promoting organ donation and transplantation in India, including kidney transplantation.
5. National Kidney Foundation of India (NKFI): This organization is dedicated to promoting awareness about kidney disease, providing education and support to patients, and advocating for better policies and treatments for people with kidney disease.

These policies and programs are aimed at improving access to renal care and treatment for people in India, and addressing the increasing burden of kidney-related diseases in the country.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total
<b>Donors From Kerala</b>	<b>9</b>	<b>36</b>	<b>58</b>	<b>76</b>	<b>72</b>	<b>18</b>	<b>8</b>	<b>19</b>	<b>21</b>	<b>17</b>	<b>09</b>	<b>343</b>
Heart	0	6	6	14	18	5	4	3	5	4	5	70
Lungs	0	0	0	2	0	1	1	0	0	0	0	4
Liver	4	23	44	62	64	15	7	15	18	14	8	274
Kidney	18	59	104	132	113	34	14	32	41	29	18	594
Pancreas	0	0	1	2	1	3	1	3	0	0	2	13
Small Intestine	0	0	1	1	1	0	0	0	2	0	0	5
Hand	0	0	0	4	2	2	2	2	4	2	4	22
Larynx	0	0	0	1	0	0	0	0	0	0	0	1
<b>Total Major Organs</b>	<b>22</b>	<b>88</b>	<b>156</b>	<b>218</b>	<b>199</b>	<b>60</b>	<b>29</b>	<b>55</b>	<b>70</b>	<b>49</b>	<b>37</b>	<b>983</b>

Source: [Mrithasanjeevani Aug 2012 to Jan 2023](https://www.knos.org.in/yearlystatistics.aspx)  
<https://www.knos.org.in/yearlystatistics.aspx>

The data above indicates the potential year versus data for kidney transplants under Mrithasanjeevani. The statistics clearly shows that the kidney is the most in-demand organ. Since the project's inception in 2012, 983 individuals have benefitted from it. The website has registered a total of 3,115 users. Some of them were initially registered in 2014. The three years with the highest number of kidney transplants were 2014, 2015, and 2016. The frequency of transplants has decreased with time. Mrithasanjeevani has now been registered with the Kerala State Organ and Tissue Transplant Organization and included into the national SOTO system (K-SOTO). There are 2246 patients who have signed up for kidney transplants through SOTO. However, the idea hasn't yet proven successful. The waiting list for kidney transplants has become longer due to an increase in demand. Access to renal care units is required to fill this gap, but expanding the number of these facilities is not a long-term fix; instead, the underlying medical problems must be found and addressed as soon as possible. Its approach would help to gradually lower the number of people who are getting close to the end of their renal health. For this, DRT has set up early detection camps to examine kidney care and lifestyle disorders in their earliest stages. The early detection camp for the early detection of lifestyle diseases has been arranged in locations with limited resources, helping people to diagnose albuminuria.

While the policies and initiatives aimed at improving renal care in India have made some progress, there are also some criticisms and challenges that need to be addressed. Some of the common critiques of the current renal care policies in India include:

- Lack of access to treatment: Despite the efforts to provide free dialysis and other treatments to people from economically weaker sections of society, access to renal care remains a challenge in many parts of the country, especially in rural areas.
- Shortage of trained healthcare professionals: There is a shortage of trained healthcare professionals, such as nephrologists and dialysis technicians, which limits the availability of quality renal care in many areas.

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- **Inadequate infrastructure:** In many parts of the country, there is a lack of adequate infrastructure, such as dialysis centers and transplantation facilities, to support the growing need for renal care.
  - **Lack of public awareness:** There is a lack of public awareness about kidney disease, its causes, and the importance of early detection and treatment, which can lead to delayed diagnosis and progression of the disease.
  - **Insufficient funding:** Despite the government's efforts to provide financial assistance for the treatment of kidney disease, there is often a shortage of funding for renal care programs, which limits their effectiveness.

These are some of the criticisms and challenges that need to be addressed in order to improve the overall quality of renal care in India and address the increasing burden of kidney-related diseases in the country.

### **Hemodialysis:**

Chronic dialysis's viability from an economic standpoint, in terms of accessibility of treatment for persons with kidney disease, the delivery of high-quality services, and early identification and prevention among people, are all still uncertain in the public health system. The strategy chosen by Thanal aims to reduce the prevalence of renal care-related disease through the early diagnosis of kidney-related problems, notwithstanding attempts to subsidize treatment and make hemodialysis clinics accessible in remote regions.

Among the frequently utilized life-sustaining medical procedures, dialysis is one of the most expensive. Health care prices are still exorbitantly expensive, pushing up to 37 million Indians into poverty every year owing to uninsured medical expenses. People with end-stage renal disease in rural India, especially in areas with limited resources, require open awareness on lifestyle diseases and the earliest detection and prevention of renal care diseases, as well as creative strategies to alleviate household financial distress based on community-based rehabilitation. As a result, DRT has developed a medical camp survey for the early identification and prevention of lifestyle diseases to help individuals recognize and lower their risk of developing kidney-related problems.

### **OUR APPROACH:**

1. Awareness on lifestyle diseases
2. Earliest detection and prevention of renal care and lifestyle diseases
3. Ensuring insurance and other provisions of to the family
4. Pre and Post Community based bio-psycho-Socio rehabilitation

Prevention of kidney disease is by properly managing the conditions that cause kidney disease. These include mainly diabetes and hypertension. Avoiding unnecessary medications, getting enough exercise and fluids, and maintaining a healthy weight are all important preventative measures for kidney disease. There is very little public awareness of the association between health and lifestyle. Many are unaware that a change in lifestyle is an important factor in the emergence of chronic diseases as causes of increased morbidity and mortality.

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Both increasing the number of dialysis units and preventing the development of kidney diseases have their own benefits and are important in their own right.

Dialysis units are important for those who already have kidney disease and require regular dialysis treatments to remove waste and excess fluid from their bodies. Increasing the number of dialysis units helps ensure that everyone who needs dialysis has access to it, regardless of where they live.

However, prevention is also critical in reducing the burden of kidney diseases. Kidney diseases often develop slowly and without symptoms, so early detection and management of risk factors, such as high blood pressure, diabetes, and unhealthy lifestyle habits, can help prevent the progression of kidney disease and reduce the need for dialysis.

In conclusion, both increasing the number of dialysis units and preventing the development of kidney diseases are important for improving kidney health and reducing the burden of kidney disease. DRT's comprehensive approach, which therefore includes both approaches, is the best way to address the problem effectively.

### **HOW EARLY DETECTION OF RENAL DYSFUNCTION HELPS IN PREVENTION/ PROGRESSION OF RENAL HEALTH ?**

There is evidence to suggest that early identification and management of kidney dysfunction can significantly reduce the need for kidney transplantation and dialysis. One study conducted in the United Kingdom found that early referral of patients with advanced chronic kidney disease (CKD) to a nephrology clinic was associated with a reduced likelihood of requiring dialysis or kidney transplantation (Fassett & Gobe, 2017). Another study in the United States found that patients who received early intervention for CKD, including education on lifestyle changes and medication management, had a lower risk of developing end-stage renal disease (ESRD) and requiring dialysis or kidney transplantation (Xie et al., 2018).

These findings suggest that early identification and management of kidney dysfunction can be an effective way to reduce the need for kidney transplantation and dialysis. However, there are several factors that can impact the success of these interventions. For example, access to healthcare and resources can greatly impact a patient's ability to receive early intervention and manage their kidney health effectively.

Additionally, it is important to note that some cases of kidney dysfunction may be irreversible, and may ultimately require kidney transplantation or dialysis despite early intervention. However, early identification and management can still help to delay or reduce the need for these interventions, improving quality of life and reducing the burden on healthcare systems.

Overall, early identification and management of kidney dysfunction can have a significant impact on the need for kidney transplantation and dialysis. However, it is important to consider the broader context of healthcare access and resources, as well as the specific circumstances of each individual case.

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Yes, early detection of kidney dysfunction can greatly help in preventing the need for dialysis and transplantation. Kidney disease is a progressive condition, and early detection and treatment can slow down its progression and prevent the development of end-stage kidney disease (ESRD), which requires dialysis or transplantation.

- Some of the key benefits of early detection of kidney dysfunction include:
- Better treatment outcomes: Early detection allows for earlier intervention and more effective treatment, which can slow down the progression of the disease and prevent the development of ESRD.
- Reduced risk of complications: Early detection can help identify and treat any underlying causes of kidney dysfunction, such as high blood pressure, diabetes, or infections, which can reduce the risk of complications and further damage to the kidneys.
- Better quality of life: Early detection and treatment can help maintain kidney function and improve quality of life, as patients with ESRD often experience a decline in their physical and mental health.
- Reduced healthcare costs: Early detection and treatment can reduce the need for dialysis and transplantation, which are costly and resource-intensive treatments, and can also prevent the development of other complications that can lead to increased healthcare costs.

Therefore, early detection of kidney dysfunction is crucial in preventing the need for dialysis and transplantation, and improving the overall prognosis and quality of life for patients with kidney disease.

Our Early Detection Camp aims to redefine renal dysfunction as a primary healthcare question. Designing prompt and effective health system solutions to stop the progression of chronic kidney disease (CKD) into end-stage renal disease (ESRD) has an influence on both clinical and financial factors. Acute kidney injury (AKI), all-cause mortality, cardiovascular death, chronic kidney failure (also known as end-stage renal disease, ESRD), and other negative outcomes are all made more likely by chronic kidney disease (CKD). Early CKD detection and care can lower the risk of negative consequences. The early detection camps offered by DRT are designed to offer cost-effective screening, diagnosis, and treatment of chronic diseases if preferred by the beneficiaries, with an emphasis on those who come from socio-economically backward populations.

The situation of renal health among people in Kerala, India, is a growing concern. Kerala has a high burden of chronic kidney disease, with a prevalence rate of 8–10%. This is attributed to various factors such as high rates of diabetes and hypertension, as well as other lifestyle factors such as an unhealthy diet and sedentary behavior.

Additionally, access to timely and adequate renal healthcare services remains a challenge in many parts of Kerala, leading to delayed diagnosis and treatment of kidney disease. This, in turn, leads to a high burden of end-stage kidney disease and the need for dialysis or transplantation.

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The government of Kerala has taken several measures to improve the renal health of its population, including the establishment of specialized kidney care centers and the provision of dialysis services in public hospitals. However, there is still a need for increased investment in the healthcare system, particularly in terms of training health care professionals and improving access to kidney care services for those in need.

Overall, the situation of renal health among the people of Kerala highlights the importance of preventive measures, early detection, and timely intervention to improve the quality of life for those affected by kidney disease.

**Detection:** Estimate serum creatinine in urine

**Albuminuria:** Albuminuria, the increased excretion of albumin in the urine, is a reliable and early sign of kidney function in many types of renal disease. The albumin-to-creatinine ratio is the first technique for detecting excess protein (ACR).

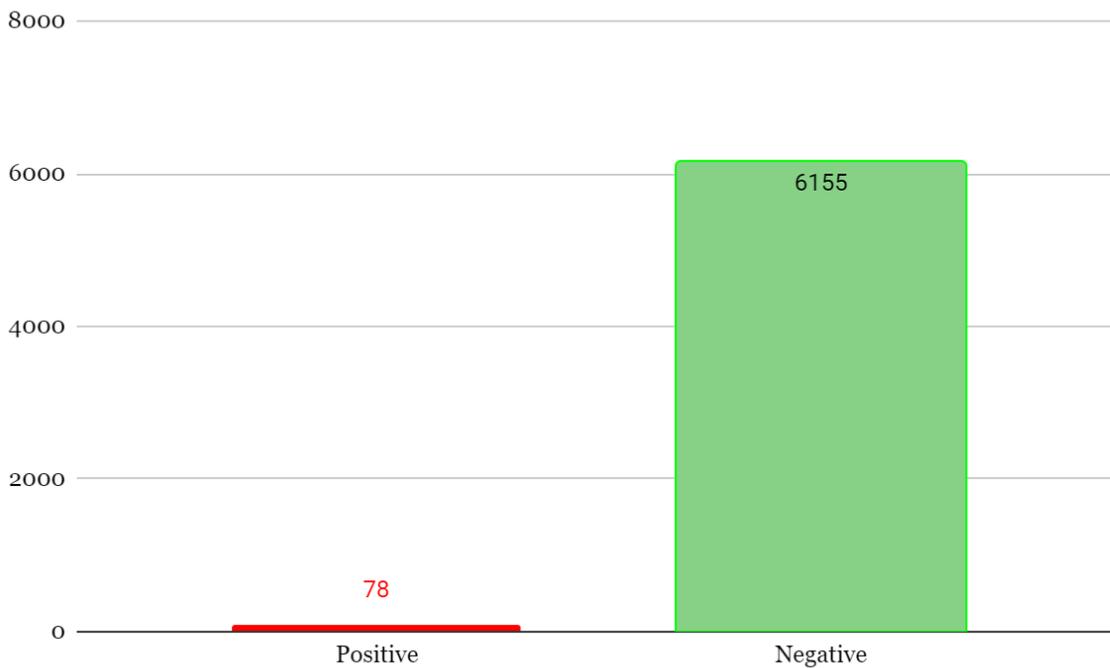
Definitions of abnormalities in Albumin Excretion: The term "microalbuminuria" refers to albumin excretion that is above the normal range but below the threshold that may be identified by testing for total protein. It is used to describe moderately increased albuminuria, also known as ACR 30-300 mg/g. ACR > 300) denotes highly increased albuminuria, also known as macroalbuminuria, which is characterized by a more pronounced elevation of albumin and a progressive decline in glomerular filtration rate.

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## **FINDINGS:**

During the months of October, November, and December 2022, DRT conducted an early detection camp for identification of lifestyle diseases and renal health, albuminuria was examined in 6403 individuals at 36 different locations. There were 78 of them who tested positive for albumin. More cases of positive reported locations are found in Kannur, Trivandrum, and Nandi. Additionally, men outnumber women among those who test positively.

78 people out of 6155 who had the albumin-urea test at 36 different locations tested positive.



***Graph 1: Percentage of People Who Tested Positive for Urine Albumin (October-November 2022).***

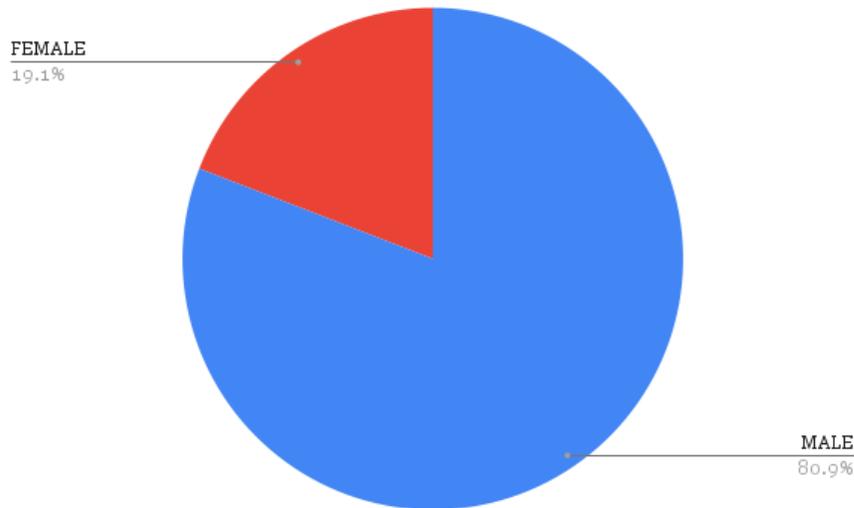
## **LOCATION WISE URINE ALBUMIN POSITIVITY RATE**

Location	Total	Positive	Negative
Kottakkal	110	0	110
Kannur	731	22	709
Narath	105	0	105
Keeyoor	184	1	183
Kacheri	121	0	121
Elampilad	58	2	56
Kelakam	103	3	100
Koduvally	339	0	339
Kalachar	79	0	79
Orkkatteri	258	2	256

Payyoli	117	0	117
Moypoth	184	3	181
Keezhal	82	0	82
Kolavipalam	96	0	96
Manjeri	435	0	435
Malappuram	182	0	182
Ulliyeri	212	0	212
Thalassery	216	0	216
Muttungal	217	0	217
Nadapuram	144	0	144
Puthukurichy	210	3	207
Trivandrum	220	20	200
Chorode	142	0	142
Kanoor	178	0	178
Kadaloor	108	0	108
Ayanikkad	62	0	62
Thikkodi	191	1	190
Koyilandy	91	0	91
Adoor	85	1	84
Kainatty	101	0	101
Thiruthiyad	86	0	86
Perambra	121	5	117
Mattannoor	192	0	192
Vaduthala	222	5	222
Arikkulam	99	0	99
Nandhi	146	10	136
Total	6227	78	6155

**Table 1: Urine albumin test positivity rate across surveyed locations (October to December 2022).**

Albuminuria has been shown to be more common in males than females among those who tested positive. Out of 78 positive individuals, there were 18 females and 60 males who tested positive. In the current study, an albuminuria level between 0.5 and 1.4 for males and 0.5 to 1.3 for females is regarded as "normal." The majority of the population has been determined to fall within the border of these normal limits.



**Figure 1: Proportion of Male and female test positivity rates (October–December 2022)**

### **Male and Female Risk Factors**

Albuminuria, or the presence of albumin in the urine, is a common marker of kidney disease and can indicate damage to the kidneys. There are several risk factors that can increase the likelihood of albuminuria in men, including:

- **Age:** The risk of albuminuria increases with age, particularly in those over the age of 60.
- **High blood pressure:** High blood pressure is a major risk factor for kidney disease, and can lead to albuminuria by damaging the blood vessels in the kidneys.
- **Diabetes:** Diabetes is a leading cause of kidney disease, and can result in albuminuria by damaging the blood vessels in the kidneys and reducing blood flow to the kidneys.
- **Family history of kidney disease:** Having a family history of kidney disease can increase the risk of developing albuminuria, as genetic factors may play a role in the development of kidney disease.
- **Smoking:** Smoking is a major risk factor for kidney disease, and can increase the risk of albuminuria by damaging the blood vessels in the kidneys and increasing oxidative stress in the body.
- **Obesity:** Obesity is a major risk factor for kidney disease, and can increase the risk of albuminuria by increasing the workload on the kidneys and contributing to the development of other risk factors, such as high blood pressure and diabetes.
- **Cardiovascular disease:** Cardiovascular disease, such as heart disease and stroke, can increase the risk of albuminuria by damaging the blood vessels in the kidneys and reducing blood flow to the kidneys.

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- **Pregnancy-related conditions:** Women who have experienced pregnancy-related conditions, such as pre-eclampsia, may have an increased risk of developing albuminuria due to damage to the blood vessels in the kidneys.

These are some of the key risk factors for albuminuria in men, and it is important for men and women to be aware of these risks and take steps to reduce their risk of kidney disease and albuminuria.

### **WHY EARLIEST DETECTION AND PREVENTION IS IMPORTANT?**

Chronic disease places a significant financial burden on health care and can lead to loss of independence, years of disability, or death. Chronic diseases are a significant global public health issue today. According to estimates from the World Health Organization (WHO) in 2005, chronic diseases were responsible for 61% of all deaths (35 million people) and 49% of the worldwide disease burden. Globally, chronic disease fatalities are predicted to account for 70% of all deaths by 2030, and the disease burden will be 56%. The African and Eastern Mediterranean areas are predicted to have the most growth.

There are several factors that can contribute to the non-identification of renal dysfunction earlier, which can delay treatment and increase the risk of complications. Some of the key risk factors include:

- **Lack of symptoms:** In the early stages of kidney disease, patients may not experience any symptoms, which can make early detection difficult.
- **Undiagnosed underlying conditions:** Kidney disease can often be a complication of other underlying conditions, such as high blood pressure, diabetes, or infections, which may not have been diagnosed or treated.
- **Limited access to healthcare:** In many parts of the world, access to healthcare, especially preventive care, is limited, which can result in delayed diagnosis and treatment of kidney disease.
- **Lack of public awareness:** There is often a lack of public awareness about the importance of kidney health, the signs and symptoms of kidney disease, and the need for regular check-ups and screenings, which can lead to delayed diagnosis and treatment.
- **Inadequate healthcare systems:** Inadequate healthcare systems, such as a shortage of trained healthcare professionals, limited access to diagnostic tests, and inadequate treatment facilities, can also contribute to the non-identification of renal dysfunction earlier.

These are some of the key risk factors that can lead to the non-identification of renal dysfunction, delay treatment, and increase the risk of complications for patients with kidney disease.

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As per the available data, Kerala has a high incidence of kidney diseases compared to other states in India. According to a study published in the Indian Journal of Nephrology, the prevalence of chronic kidney disease (CKD) in Kerala was estimated to be around 10-12% of the adult population. This is largely due to the high rates of diabetes and hypertension, which are leading causes of CKD.

In addition, the lack of access to early detection and treatment options, combined with a lack of public awareness about the risk factors and symptoms of kidney disease, has contributed to the high incidence of kidney disease in the state.

To address this issue, it is important to increase access to early detection and treatment options, improve public health education about the risk factors and symptoms of kidney disease, and implement preventative measures to reduce the incidence of diabetes and hypertension.

## **CONCLUSION**

Lifestyle diseases, such as diabetes, heart disease, and hypertension, are becoming increasingly common and are often closely related to one's lifestyle choices, such as diet and physical activity levels. These diseases can lead to serious health problems, including kidney disease.

Renal care is important for individuals with lifestyle diseases because these diseases can cause damage to the kidneys over time. This can result in a reduction in kidney function, known as chronic kidney disease (CKD). If left untreated, CKD can progress to end-stage kidney disease, which requires dialysis or a kidney transplant to sustain life.

To maintain kidney health, it is important to manage lifestyle diseases through lifestyle changes and medical intervention. This can include:

- Eating a healthy, balanced diet that is low in salt and high in fiber
- Maintaining a healthy weight
- Engaging in regular physical activity
- Quitting smoking and avoiding exposure to secondhand smoke
- Controlling blood sugar levels (in the case of diabetes)
- Managing blood pressure through lifestyle changes and medication
- Taking medications as prescribed by a doctor
- Regularly monitoring kidney function through blood and urine tests

By taking these steps, individuals with lifestyle diseases can reduce the risk of developing kidney problems and improve their overall health. Therefore, it becomes more important to identify the underlying factors that lead to kidney dysfunction, like family history, BMI, habits, and potential environments.

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## **POLICY RECOMMENDATIONS**

At the individual and group level, modest but doable lifestyle behavior changes are likely to have a significant influence. Lifestyles are social behaviors and modes of living that people embrace and that might represent their socioeconomic status, group identity, and personal identities.

Through a variety of strategies, such as tax and price policy, restrictions on tobacco advertising, promotion, and sponsorship, packing and labeling requirements, educational campaigns, bans on smoking in public places, and cessation support services, a comprehensive public health approach to tobacco control effectively prevents the start of tobacco use and promotes its cessation. Individual levels of consumption, cessation rates, and initiation rates by national policy measures, which need continuous political will, involvement, and, most importantly, effective and well-enforced laws, are one way of approaching this problem that can lead to a declining graph of consumption of materials that damage the kidney.

Effective public health initiatives are also desperately required to encourage physical exercise and improve overall health. Both governments and the general public have a responsibility to promote physical exercise. However, the environment, sports and recreational facilities, and national policies all have an impact on how individuals choose to engage in physical exercise. It necessitates synchronization across a variety of disciplines, including local governments, the health and sports industries, education and cultural policies, media and information, transportation, and financial and economic planning.

The DRT works to assist people with limited natural resources to achieve this goal by offering countrywide advocacy on the advantages of healthy lifestyles for social, economic, and health reasons.

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