

Universal Care for Kidney Diseases: Sustainable Development or Path to Financial Ruin?



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Universal health coverage (UHC) (i.e., ensuring that all people have access to the health services they need without exposure to financial hardship) has become a guiding principle of global health policy under the Sustainable Development Goals.¹ UHC also is the official theme of 2019 World Kidney Day (Figure 1). It is an incredibly ambitious aim that, if achieved, will improve the health of the global population and stop hundreds of millions of people from falling into poverty each year as a result of health care costs. Although treating the growing burden of kidney diseases is a key obstacle to achieving UHC in many countries, the global momentum behind the target represents a unique opportunity to halt and start to overcome the growing burden of kidney diseases across the world. To achieve this, the global clinical, research, and policy communities will need to use the push

toward UHC as a catalyst to reform the way that kidney diseases are prevented, managed, and treated; prioritize interventions that are most valuable to populations; and build the case for investment into sustainable models of care.

UHC and Kidney Diseases

Successfully achieving UHC promises significant benefits to the global population; however, there are numerous challenges that need to be overcome if it is to be achieved. The growing burden of kidney diseases has been raised as one of the most significant barriers to the successful attainment of UHC in many countries.² The World Health Organization estimates that kidney diseases are responsible for almost 1.5% of the current global burden of diseases (as measured by disability adjusted life years) and for 2.1% of total deaths, making them the 12th leading cause of death globally.³ Global Burden of Disease estimates suggest that kidney diseases will become the fifth leading cause of years of lives lost by 2040.⁴

The ill health resulting from kidney diseases is compounded by



Figure 1. 2019 World Kidney Day: Kidney Health for Everyone Everywhere.

the economic burden on households and health systems. Care for kidney disease treatment constitutes a disproportionately high portion of the health care spending in almost all health care systems around the world, and spending rises with increasing disease severity. In addition, approximately 188 million people experience catastrophic health expenditure annually as a result of kidney diseases across low and middle-income countries, the greatest of any disease group.⁵ Late-stage interventions, such as dialysis and transplantation, are often not accessible to those living in resource-constrained settings.⁶ More broadly, care costs force patients to discontinue treatment in countries of all income levels.⁷ Treatment of late-stage kidney disease has several hidden components that add to the economic burden facing households: those related to ancillary medical treatment other than dialysis or transplantation, repeated travel to receive dialysis, and the loss of wages for the patient and/or the caregiver, which are often not factored in while designing care packages. Such packages often only cover the cost of care provided in hospitals or health care facilities, while ignoring that incurred on outpatient treatment, such as cost of medications or travel. For example, it is estimated that more than 60% of rural patients with end-stage renal disease in Thailand choose not to start dialysis despite having no medical contraindication and

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being eligible to receive free care, mainly because of the ancillary costs and caregiver burden (K Tungsanga, personal communication). Ultimately, the challenge of providing care to patients living with kidney diseases threatens to derail progress toward UHC in many countries.

Opportunities for Reform

Despite these challenges, UHC represents an opportunity for substantial gains to patients living with (or at risk of) kidney diseases. The scope of reforms under way around the globe presents an opportunity to institutionalize appropriate care patterns to ensure best-practice care and treatment for kidney diseases. For this to occur, and to ensure resources are used in their most valuable and ethical way, stakeholders must work together to build the case for investment to overcome the impact of kidney diseases and develop effective and sustainable models of care. We propose 3 interrelated areas requiring a concerted focus from this community to successfully reach UHC: continued focus on earlier intervention and health promotion, innovations in the care and financing of later-stage care, and the generation of improved evidence to inform policy interventions in this space (Table 1).

Improved Focus on Early Intervention

Over time, the biggest gains in reducing the clinical and economic burden of kidney diseases and improving the sustainability of the health systems providing care to these patients will come through access to factors critical for public health, such as healthy lifestyles, good nutrition, clean water and environments, and infection and tobacco control. More directly, efforts need to be directed to population-based approaches to prevent the key known risks for kidney disease, such as blood pressure control and effective management of obesity and diabetes. These measures cannot be forgotten, even as the push for UHC builds and potentially results in greater investment into access to late-stage care, like dialysis. Advocacy and the generation of evidence highlighting the links between public health interventions and downstream kidney diseases, including regarding economic impacts, is vital to the health of populations and success and sustainability of UHC. New methods of prevention targeting key risk-factors need to be developed and evaluated at the population level to build a case

for investment into interventions at the preventive level of care.⁸ These include reform in pharmaceuticals, such as increased use of generics and rational fixed-dose combinations to reduce cost and improve compliance. Use of task-shifting from physicians to community health workers has been trialed in low-, middle-, and high-income environments, and offers the prospect of reducing costs and improving access to care. There is a strong case for screening to identify the key indicators for kidney diseases across both low- and middle-income countries and high-income settings.^{9,S1} Recent data from the Global Burden of Disease study suggests nontraditional risk-factors are responsible for a high proportion of kidney disease in low- and middle-income countries. Identifying these risk-factors is critical for developing locally appropriate screening strategies. Primary health system strengthening needs to be a key focus of all reforms to allow appropriate treatment of these risk-factors, comorbidities, and early-stage kidney diseases to delay disease progression, minimize financial hardship for patients, and avoid the high later-stage treatment costs for health systems around the world.

Innovating Later-Stage Care

Despite an increased focus on earlier intervention, treatment of patients with later-stage kidney diseases will continue to be an obstacle to the successful achievement of UHC. Dialysis and kidney transplants remain unaffordable in many countries, and the ever-increasing burden of kidney diseases makes the provision of these treatments a significant challenge for even the highest-income settings.⁸ Methods to bring down the cost of current treatments and search for alternatives need to be a key focus for the

Table 1. Priority action areas for the kidney disease research, policy-making, and clinical community

Improved focus on early intervention

- Generation of evidence linking health promotion to improved health and economic outcomes regarding kidney diseases
- Continued advocacy from researchers, clinicians, and policy makers for healthy environments and lives
- Focus investments and reforms to develop effective primary care systems, including pharmaceuticals to protect against slide toward kidney diseases
- Further research to identify risk factors for kidney diseases
- Development of cost-effective screening interventions to identify those at risk of kidney diseases

Innovating later-stage care

- Developing low-cost dialysis technology
- Removing barriers to transplantation access
- Improving utilization of kidneys from deceased donors
- Examining and expanding initiatives, such as task-shifting, better access to home-based peritoneal dialysis, and supportive care where clinically appropriate to reduce costs and expand access to care without compromising quality
- Generation of evidence showing effectiveness, scalability, sustainability, and safety of these initiatives

Improving the evidence base facing policy makers

- Better identification of the burden (clinical and economic) of kidney diseases
- Setting up of kidney disease registries
- Documenting unintended consequences as interventions and models of care are scaled up across systems
- Evidence showing the impact of different financing mechanisms to balance financial protection of patients with sustainability of health systems

research and clinical communities. Efforts toward affordable dialysis processes offer the promise of widespread access to cost-effective care.^{S2} Even within the current care framework, financing reforms, such as strategic purchasing and administrative gatekeeping, can bring down cost of care.

Until these are developed, novel approaches are being made to incorporate renal replacement therapy into UHC packages of low- and middle-income countries that should be monitored to inform similar moves in other jurisdictions.^{S3,S4} These include voucher schemes and pensions to reduce out-of-pocket costs and improve the sustainability of later-stage care in resource-constrained environments.^{S5} Nephrologists are often based in urban centers, which reduces access to care for patients in rural settings. Task shifting from specialists to nonspecialist health care workers, like nurses and technicians, and use of technology, like telemedicine and electronic decision support systems, offers opportunities to improve quality and reduce costs. Supportive care in appropriate clinical situations may offer improvements in the quality of life of patients and resource allocation across health systems. These or other innovations in the technologies, models, and financing of care to meet the needs of late-stage kidney diseases will be needed to achieve UHC; however, it is vital that these are carefully monitored as they are implemented to ensure they are meeting their aims and avoiding unintended negative impacts.

Improving the Evidence Base Facing Policy Makers

To use the push for UHC as a catalyst for reforming the care of kidney diseases around the world, there is a need for better quality and more relevant evidence to

inform clinicians and policy makers. Although we have identified several areas requiring further research at a clinical level, research is also needed to inform policy decisions at the system level. Such evidence should address the issues of most clinical and economic importance to patients, be in a form that can be used by policy makers, and be methodologically innovative to balance rigorous assessment of causality of outcomes with practical considerations of system-level implementation of policy interventions.^{S6} Registries provide critical information on disease burden, help in deciding resource allocation, and improvement in quality of care. There needs to be a focus on getting the most value out of the resources available to treat kidney diseases and ongoing monitoring and evaluation to track unintended consequences, as these interventions are scaled-up across systems. This research needs to be built on robust partnerships among clinicians, researchers, and policy makers. Development of these partnerships will be vital to the successful translation of research findings into practice.

Conclusion

The global push toward UHC represents an opportunity for substantial reform of kidney disease care around the world. Clinicians, researchers, policy makers, and others working to improve outcomes of care for these patients have a clear role to play to generate better evidence from both clinical and economic viewpoints to (i) promote treatment as early as possible on the entire spectrum of care, (ii) work toward reducing costs through innovation at each level without diminishing quality of care, and (iii) ensure translation of evidence

into policy taking into account local needs, aspirations, and resources. If these opportunities are taken, the global push to UHC represents an exceptional opportunity to improve the lives of hundreds of millions of sufferers of kidney diseases and institutionalize sustainable and effective care in health systems across the world.

DISCLOSURE

All the authors declared no competing interests.

SUPPLEMENTARY MATERIAL

Supplementary References.

Supplementary material is linked to the online version of the paper at www.kireports.org.

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