

## Health Sector Strategic plan for prevention and management of CKDu

Recommendations		Proposed activities	Responsible agency		Monitoring performance indicator	Time frame and estimated expenditure (Rs. Mn)						
						Yr.	14	15	16	17	18	19
<b>Strategic Area 1: Access to screening</b>												
1.1 Strengthening of screening guidelines	1.1.1	Prepare criterion for screening guidelines	MOH	1.1.1	Criterion prepared and distributed	PP	10%	25%	100%	100%	100%	100%
						FP	5	5	10	10	10	10
1.2 Implement a systematic screening programmes for CKD	1.2.1	Implement a systematic screening programmes	MOH	1.2.1	% of eligible people screened in each MOH/DS areas	PP	20%	40%	60%	100%	100%	100%
						No	0.5	1	1	1.2	1.5	1.8
						FP	20	60	70	80	90	100
1.3.1 Strengthening of infrastructure facilities for CKD screening in key affected areas	1.3.1.1	Provide screening and patient management centres to identified hospitals in the effected area	MOH	1.3.1.1	No. of institutions with screening and patient management centres	PP	9	14	20	23	25	30
						FP	180	350	300	200	200	200
	1.3.1.2	Establish Divisional level and District level CKD Units	MOH	1.3.1.2.1	% of District level CKD units established in high prevalent areas	PP	20%	50%	100%	100%	100%	100%
						FP	25	100	100	50	50	50
						1.3.1.2.2	% of Divisional level CKD units established	PP	20%	50%	100%	100%
1.3.2 Strengthening of laboratory facilities for CKD screening in key affected areas	1.3.2.1	Provide laboratory facilities for the hospitals in the endemic area	MOH	1.3.2.1	% of institutions with adequate laboratory equipment available	PP	20%	40%	60%	100%	100%	100%
						FP	60	150	200	200	200	200
1.3.3 Strengthening of human resources for CKD screening in key affected areas	1.3.3.1	Appointment of AMOH CKDP to all high high risk RDHS and MOH areas	MOH	1.3.3.1	% of RDHS/MOH with AMOH CKDP in needy districts	PP	60%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
1.4.1 Improvement of mobile clinics conducted at GSN Divisions	1.4.1.1	Provide vehicles to conduct mobile CKD screening	MOH	1.4.1.1.1	No. of RDHS/MOH areas provided with vehicles	PP	15	5	2	2	2	2
						FP	118	40	20	20	20	20
			MOH	1.4.1.1.2	% of screening programme conducted using mobile transport facilities	PP	10%	40%	70%	100%	100%	100%
1.4.2 Improvement of transport facilities for Nephrologists and their team to attend outreach clinics and the cadaver transplant programme (TH Anuradhapura, TH Kandy, DGH Polonnaruwa, PGH Badulla)	1.4.2.1	Provide transport facilities to attend outreach clinics and cadaver transplant programme (TH Anuradhapura, TH Kandy, DGH Polonnaruwa, PGH Badulla)	MOH	1.4.2.1.1	No. of vehicles purchased	PP	0	4	3	2	2	2
						FP	0	40	30	20	20	20
				1.4.2.1.2	% of out reach clinics conducted	PP	20%	40%	60%	100%	100%	100%
				1.4.2.1.3	% of CKD patients treated in the	PP	20%	40%	60%	100%	100%	100%
				1.4.2.1.4	% of cadaver kidneys obtained	PP	20%	40%	60%	100%	100%	100%
1.5 Improve mobile lab services	1.5.1	Provide a mobile lab to NCP and other high risk areas	MOH	1.5.1.1	No. of mobile labs in NCP and other high risk areas	PP	1	1	2	2	2	2
						FP	25	25	50	50	50	50

				1.5.1.2	% of screening programme conducted by mobile lab	PP	0%	40%	60%	100%	100%	100%
				1.5.1.2	% of at risk population screened by mobile lab	PP	0%	40%	60%	100%	100%	100%
Total estimated expenditure for Strategic Area 1						FP	433	770	780	630	640	650
<b>Strategic Area 2: Management of patients</b>												
2.1 Strengthening of management guidelines	2.1.1	Prepare criterion for management guidelines	MOH	2.1.1	Criterion prepared and distributed	PP	5%	25%	100%	100%	100%	100%
						FP	10	5	10	10	10	10
2.2 Ensure access to identified essential drugs	2.2.1	Provide essential medication for the hospitals in the endemic area.	MOH	2.2.1	% of institutions with essential drugs available for management of CKD/CKDu patients	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
2.3.1. Improvement of dialysis facilities	2.3.1.1	Provide dialysis machines and required resources for dialysis units	MOH	2.3.1.1.1	No. of institutions with dialysis facilities in CKDu affected areas	PP	9	14	19	19	19	19
						FP	100	500	400	300	200	200
						2.3.1.1.2	No. of dialysis machines in CKDu	PP	110	135	180	200
				2.3.1.1.3	% of patients obtaining services of	PP	50%	70%	90%	100%	100%	100%
2.3.2. Establishment of renal units in PGH Badulla, DGH Trincomalee, TH Batticaloa, TH Jaffna	2.3.2.1	Establish renal units in PGH Badulla, DGH Trincomalee, TH Batticaloa, TH Jaffna, DGH Hambanthota	MOH	2.3.2.1	No. of institutions with functioning renal units in CKDu affected areas	PP	3	4	5	6	7	7
						FP	50	150	300	450	600	600
2.3.3. Strengthen transplant facilities in TH Kandy, TH Karapaitiya, TH Anuradhapura, TH Jaffna, TH Peradeniya	2.3.3.1	Strengthen transplant facilities in TH Kandy, TH Karapaitiya, TH Anuradhapura, TH Jaffna, TH Peradeniya	MOH	2.3.3.1.1	No. of institutions with transplant facilities in CKD/CKDu affected areas	PP	3	3	3	4	5	5
						FP	0	0	600	1000	1000	1000
						2.3.3.1.2	% of kidney transplants conducted	PP	50%	60%	70%	80%
2.3.4. Strengthen Cadaver Transplant Programme	2.3.4.1	Streamline Cadaver Transplant Programme	MOH	2.2.4.1.1	% of cadaver transplants conducted	PP	0	30%	60%	90%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
	2.3.4.2	Appointment of coordinator Cadaver Transplant Programme	MOH	2.2.4.2.1	% of institutions with coordinators for cadaver transplant programme	PP	0	40%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
2.3.5 Strengthening of laboratory facilities for CKD management in key affected areas	2.3.5.1	Provide laboratory facilities for the hospitals in the endemic area	MOH	2.3.5.1	% of institutions with adequate laboratory equipment available	PP	50%	70%	90%	100%	100%	100%
						FP	150	50	75	100	100	100
2.3.6 Improvement of palliative care in TH Anuradhapura, DGH Polonnaruwa, TH Kandy, PGH Badulla	2.3.6.1	Provide facilities for palliative care in TH Anuradhapura, DGH Polonnaruwa, TH Kandy, PGH Badulla	MOH	2.3.6.1.1	No. of institutions with palliative care facilities	PP	0	1	2	2	3	4
						FP	0	30	60	60	90	90
						2.3.6.1.2	% of patients obtaining palliative care facilities	PP	50%	70%	90%	100%
2.3.7 Improving infrastructure of medical wards where CKD/CKDu patients are managed	2.3.7.1	Provide physical infrastructure facilities for medical wards	MOH	2.3.7.1	% of institutions with adequate physical infrastructure facilities in medical wards of CKDu affected areas	PP	20%	50%	70%	100%	100%	100%
						FP	0	10	15	20	20	20

Total estimated expenditure for Strategic Area 2						FP	310	745	1460	1940	2020	2020
<b>Strategic Area 3: Human resources</b>												
3.1.1 Ensure availability of AMOH CKDP for screening, community empowerment & education, data management and assisting in CKD clinics in all high risk areas	3.1.1.1	Appointment of AMOH CKDP to all high high risk RDHS and MOH areas	MOH	3.1.1.1	% of RDHS/MOH with AMOH CKDP in needy districts	PP	60%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.1.2 Ensure adequate number of human resources for data management	3.1.2.1	Appointment of human resources for data management in all high high risk RDHS and MOH areas	MOH	3.1.2.1	% of RDHS/MOH with adequate human resources for data management in CKDu affected areas	PP	0%	40%	80%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.2.1 Ensure adequate number of MO Renal to all institutions with dialysis facilities in high risk areas	3.2.1.1	Appointment of MO Renal to all institutions with dialysis facilities in high risk areas	MOH	3.2.1.1	% of MO Renal available in hospitals with dialysis facilities	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.2.2 Ensure adequate number of nursing staff to all institutions in high risk areas	3.2.2.1	Appointment of nursing staff to all institutions in high risk areas	MOH	3.2.2.1	No. of institutions with adequate nursing staff in high risk areas	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.2.3 Ensure adequate number of MLT to all institutions in high risk areas	3.2.3.1	Appointment of MLT to all institutions in high risk areas	MOH	3.2.3.1	No. of institutions with adequate MLT in high risk areas	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.2.4 Ensure adequate number of VPs to all institutions in high risk areas	3.2.4.1	Appointment of VPs to all institutions at the level of base hospitals and above in high risk areas	MOH	3.2.4.1	No. of institutions with adequate VPs in high risk areas	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.2.5 Ensure adequate number of dispensers/pharmacists to all institutions in high risk areas	3.2.5.1	Appointment of dispensers/pharmacists to all institutions in high risk areas	MOH	3.2.5.1	No. of institutions with adequate dispensers/pharmacists in high risk areas	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.2.6 Ensure adequate number of human resources for data management	3.2.6.1	Appointment of human resources for data management in all curative institutions in high risk areas	MOH	3.2.6.1	No. of institutions with adequate human resources for data management in CKDu affected areas	PP	70%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
3.3 Human resources needs to be assessed and analysed	3.3.1	Conducting assessment of human resources	MOH	3.3.1	% of reports completed on human resources	PP	0%	10%	60%	100%	100%	100%
						FP	0	0.2	0.5	0.5	0.5	0
3.4 Development of expert resource group at Central, Provincial and District level for continuing education for health and other sector staff	3.4.1	Development of expert resource group at Central, Provincial and District level for continuing education for health and other sector staff	MOH	3.4.1.1	No. of people in the expert resource group at central level	PP	0	10	10	10	10	10
						FP	N/A	N/A	N/A	N/A	N/A	N/A
			MOH	3.4.1.2	% of provinces having expert resource groups in CKDu affected provinces	PP	0%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
			MOH	3.4.1.3	No. of districts having expert resource groups in CKDu affected districts	PP	0%	100%	100%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A

3.5 Development of Continuous Professional Development (CPD) centre for CKD/CKDu in Provinces	3.5.1	Development of Continuous Professional Development (CPD) centre for CKD/CKDu in Provinces	MOH	3.5.1	% of provinces with CPD centres in CKDu affected areas	PP	0%	20%	50%	100%	100%	100%		
						FP	0	2	5	10	10	10		
3.6 Develop and implement training packages and manuals	3.6.1	Develop and implement training packages and manuals for CKD/CKDu screening guidelines and procedures	MOH	3.6.1.1	% of MOH/AMOH trained in CKD/CKDu screening guidelines and procedures in CKDu affected areas	PP	100%	100%	100%	100%	100%	100%		
						FP	0.1	0.2	0.2	0.3	0.3	0.35		
		Develop and implement training packages and manuals for CKD/CKDu management	MOH	3.6.1.2	% of renal MO trained in CKD/CKDu management in CKDu affected areas	PP	0%	100%	100%	100%	100%	100%		
						FP	0	0.2	0.3	0.4	0.5	0.5		
		Develop and implement training packages and manuals for data management of CKD/CKDu patients	MOH	3.6.1.3	% of data managers trained in data management of CKD/CKDu patients in CKDu affected areas	PP	0%	100%	100%	100%	100%	100%		
						FP	0	0.2	0.2	0.3	0.3	0.35		
		Develop and implement training packages and manuals for palliative care of CKD/CKDu patients	MOH	3.6.1.4	% MO trained in palliative care of CKD/CKDu patients in CKDu affected areas	PP	0%	100%	100%	100%	100%	100%		
						FP	0	0.1	0.1	0.15	0.2	0.2		
		Develop and implement training packages and manuals for CKD/CKDu care givers	MOH	3.6.1.5	% care givers trained in care of CKD/CKDu patients in CKDu affected areas	PP	0%	10%	25%	50%	80%	100%		
						FP	0	0.5	0.7	1	1.5	2		
		3.7 Ensure opportunities for international training	3.7.1	Provide abroad training and exposure for all the categories of staff in relevant areas	MOH	3.7.1	No. trained in abroad on CKD/CKDu from CKDu affected areas	PP	0	4	8	10	10	10
								FP	0	2	4	6	6	6
Total estimated expenditure for Strategic Area 3						FP	0.1	5.4	11	18.65	19.3	19.4		
<b>Strategic Area 4: Surveillance of CKD/CKDu patients</b>														
4.1 Establish sentinel sites in CKDu high risk hospitals	4.1.1	Establish sentinel sites in CKDu high risk hospitals	MOH	4.1.1.1	No. of sentinel sites established	PP	30	30	30	30	30	30		
						FP	10	10	10	10	10	10		
						MOH	4.1.1.2	% of institutions sending information regularly	PP	50%	100%	100%	100%	100%
	4.1.2	Identify new areas affected by CKD/CKDu using the surveillance system	MOH	4.1.2.1	% of new areas identified	PP	100%	100%	100%	100%	100%	100%		
				4.1.2.2	No. of MOH/DS areas with GN level data available	PP	25%	100%	100%	100%	100%	100%		
4.2 Develop and implement a web based information system	4.2.1	Develop a web based information system	MOH	4.2.1.1	No. of institutions with established functional web based information system	PP	0	15	30	30	30	30		
						FP	0	15	20	20	20	25		
				4.2.1.2	% of institutions sending information regularly through web based system	PP	0	50%	100%	100%	100%	100%		
4.3 GPS mapping of high prevalent CKDu areas to coordinate with other	4.3.1	Provide necessary equipments and facilities such as GPS, vehicles and	MOH	4.3.1.1	No. of Districts having GPS facilities for GPS mapping of	PP	20%	50%	100%	100%	100%	100%		

determinants of CKDu		stationeries for the ground level officers			CKD/CKDu patients in affected areas	FP	2	6	9	3	3	3
				4.3.1.2	No. of Districts having adequate transport facilities for screening and follow up of CKDu patients	PP	20%	50%	100%	100%	100%	100%
						FP	50	100	150	50	50	50
	4.3.2	GPS mapping of CKDu areas to share information with other sectors to correlate determinants	MOH	4.3.2.1	No. of MOH /DS areas GPS mapping done	PP	10	15	20	25	30	35
					FP	10	10	10	10	10	10	
Total estimated expenditure for Strategic Area 4						FP	72	141	199	93	93	98
<b>Strategic Area 5: Community empowerment</b>												
5.1 Strengthen of facilities for motivational interviews of individuals and families	5.1.1	Train both field institutional health staff on motivational interviews	MOH	5.1.1	% of relevant Health staff trained	PP	10%	50%	100%	100%	100%	100%
						FP	0.5	1	2	2	2	2
				5.1.2	% of motivational interviews conducted	PP	10%	50%	100%	100%	100%	100%
5.2 Establish community leader groups in every affected villages / GSN divisions to change the behaviors of the community	5.2.1	Establish community leader groups in every affected villages / GSN divisions/institutions to change the behaviors of the community people	MOA, MOH	5.2.1	% of community leader groups formed and active	PP	10%	25%	75%	100%	100%	100%
						FP	1	1.5	2	2	2	2
	5.2.2	Establish a monitoring system for community empowerment	MOA, MOH	5.2.2	% of CKDU/CKD patients taking treatment regularly	PP	10%	25%	75%	100%	100%	100%
						FP	1	1.5	2	2	2	2
	5.2.3	Commencing of a mass scale education programme for specific target groups such as school children, farmers, institutional staff to inculcate positive behaviours	MOA, MOH	5.2.3.1	% of programmes conducted	PP	70%	100%	100%	100%	100%	100%
						FP	5	10	10	10	10	10
5.2.3.2						% of CKD/CKDu patients visiting the renal clinics regularly	PP	60%	80%	100%	100%	100%
5.2.3.3	% with proper use of agrochemicals	PP	40%	60%	80%	100%	100%	100%				
5.3 Strengthening of behavioural changes	5.3.1	Train both field institutional health staff on education and counseling	MOH	5.3.1	% of relevant Health staff trained	PP	20%	50%	100%	100%	100%	100%
						FP	3	5	2	1	0.5	0.5
	5.3.2	Develop skills of health and other staff how to empower the groups	MOH, MOA	5.3.2	% of health staff trained in empowering communities	PP	20%	50%	100%	100%	100%	100%
						FP	3	5	2	1	0.5	0.5
	5.3.3	Development of communication materials	MOH	5.3.3	No. of Health Learning Materials developed	PP	1	5	3	2	2	2
						FP	1	10	5	3	3	3
	5.3.4	Conduct a media campaign	MOH	5.3.4	No. of campaigns conducted	PP	0	3	5	5	5	5
						FP	0	50	200	200	200	200
Total estimated expenditure for Strategic Area 5						FP	14.5	84	225	221	220	220

Strategic Area 6: Intersectoral collaboration												
6.1 Establishment of Renal Disease Prevention and Research Authority	6.1.1	Establishment of Renal Disease Prevention and Research Authority	MOH	6.1.1.1	% of meetings held by Renal Disease Prevention and Research Authority for CKD/CKDu	PP	0	50%	100%	100%	100%	100%
						FP	0	5	10	10	10	10
				6.1.1.2	% of inter-ministerial meetings conducted	PP	0	50%	100%	100%	100%	100%
6.2 Strengthening of inter-sectoral committees	6.2.1	Conduct Intersectoral meetings at Divisional, District, Provincial and Central levels regularly	MOH	6.2.1.1	% of meetings held by Provincial level coordinating committees	PP	0%	25%	75%	100%	100%	100%
						FP	0	1	5	5	5	5
				6.2.1.2	% of meetings held by District level coordinating committees	PP	0%	25%	75%	100%	100%	100%
						FP	0	1	5	5	5	5
				6.2.1.3	% of meetings held by Divisional level coordinating committees	PP	0%	25%	75%	100%	100%	100%
						FP	0	1	5	5	5	5
	6.2.2	Strengthening of Community Support groups	MOH	6.2.2	No of meetings held by Community Support groups	PP	0%	25%	75%	100%	100%	100%
					FP	0	1	5	5	5	5	
Total estimated expenditure for Strategic Area 6						FP	0	9	30	30	30	30
Strategic Area 7: Strengthen evidence based management												
7.1 Identification of priority Operational research areas	7.1.1	Operational research to identify better marker for early diagnosis	MOH	7.1.1.1	% of completion of the research	PP	0	10%	40%	60%	80%	100%
						FP	0	10	20	25	30	35
				7.1.1.2	No. of researches published in peer reviewed journals	PP	0	0	0	0	1	2
	7.1.2	Operational research on peritoneal dialysis	MOH	7.1.2.1	% of completion of the research	PP	0	10%	40%	60%	80%	100%
						FP	0	10	20	25	30	35
				7.1.2.2	No. of researches published in peer reviewed journals	PP	0	0	0	0	1	2
	7.1.3	Development of resource group for research	MOH	7.1.3	% of research groups formed	PP	0%	50%	100%	100%	100%	100%
						FP	0	0.5	1	1	1	1
	7.1.4	Development and submission of abstracts and journal articles on CKDu research	MOH	7.1.4.1	% of abstracts published	PP	0	10%	30%	50%	70%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
			7.1.4.2	% of journal articles published	PP	0	0	10%	40%	60%	100%	
7.2 Establishment of a fully functional research centre at TH Kandy/TH Peradeniya	7.2.1	Establish a research centre at TH Kandy	MOH	7.2.1.1	% of construction of research centre completed at TH Kandy/TH Peradeniya	PP	0	0	25%	70%	100%	100%
						FP	0	0	600	1000	1000	0
				7.2.1.2	% of researches conducted	PP	0	0%	10%	60%	80%	100%
				7.2.1.3	% of researches published in high impact journals	PP	0	0%	10%	60%	80%	100%
7.3 Strengthening of capacity of MRI to undertake analysis of heavy metals, other	7.3.1	Strengthening of capacity of MRI to undertake analysis of heavy metals,	MOH	7.3.1.1	% of development completed at MRI	PP	0	0	25%	70%	100%	100%

nephrotoxic substances and other contaminants injurious to health such as DCD, Melamine etc.		other nephrotoxic substances and other contaminants injurious to health such as DCD, Melamine etc.				FP	0	0	600	1000	1000	0
				7.3.1.2	% relevant samples investigated	PP	0	0	20%	50%	80%	100%
7.4 Strengthening of toxicology facilities	7.4.1	Strengthen of toxicology facilities	MOH	7.4.1	% of institutions with essential toxicology facilities improved	PP	10%	25%	50%	100%	100%	100%
						FP	50	60	80	80	100	100
Total estimated expenditure for Strategic Area 7						FP	50	80.5	1321	2131	2161	171
<b>Strategic Area 8: Welfare of CKD/CKDu patients</b>												
8.1 Provision of financial assistance to CKD/CKDu patients	8.1.1	Provision of financial assistance to CKD/CKDu patients	MOH	8.1.1	% of families with financial assistants	PP	0	40%	80%	100%	100%	100%
						FP	N/A	N/A	N/A	N/A	N/A	N/A
8.2 Provision of temporary lodging facilities with meals for patients and their bystanders	8.2.1	Provision of temporary lodging facilities with meals for patients and their bystanders	MOH	8.2.1.1	% of CKD/CKDu patients obtaining temporary lodging facilities	PP	0	40%	80%	100%	100%	100%
						FP	0	10	15	20	20	20
	8.2.2	Facilitate transport from the peripheral hospitals to centres	MOH	8.2.1.2	% of CKD/CKDu patients obtaining transport facilities	PP	0	40%	80%	100%	100%	100%
						FP	0	0.5	1	1.5	1.5	1.5
8.3 Establishment of social service units in Teaching Hospitals and Base Hospitals in CKD/CKDu affected areas	8.3.1	Establishment of social service units in Teaching Hospitals and Base Hospitals in CKD/CKDu affected areas	MOH	8.3.1.1	% of institutions with established social service units	PP	0	40%	80%	100%	100%	100%
						FP	0	1	2	2.5	2.5	2.5
			MOH	8.3.1.2	% of patients obtaining assistance from social service units	PP	0	40%	80%	100%	100%	100%
Total estimated expenditure for Strategic Area 8						FP	0	11.5	18	24	24	24
Grand Total for CKDu Strategic Plan						FP	880	1846	4044	5088	5207	3232















