Annex 6A. Description of Data Sources and Search Strategy

Supplemental material for: Essue, B., T-L Laba, F. Knaul, A. Chu, H.V. Minh and others. 2018. "Economic Burden of Chronic Ill-Health and Injuries for Households in Low- and Middle-Income Countries." In *Disease Control Priorities* (third edition). Volume 9, *Disease Control Priorities: Improving Health and Reducing Poverty*, edited by D.T. Jamison, H. Gelband, S. Horton, P. Jha, R. Laxminarayan, C.N. Mock, and R. Nugent. Washington, DC: World Bank.

Rate of Disease-Related CHE

A systematic search was conducted of the following electronic databases (from inception to 1 February 2016): Medline, Embase, and Global Health. The search covered all published studies that reported rates of catastrophic health expenditure (CHE) associated with the treatment and management of nine conditions: chronic infectious diseases; cardiovascular diseases; respiratory diseases; renal diseases; endocrine diseases; cancers; injuries; maternal, infant, and childhood conditions; and mental illnesses. These categories were selected because they are considered important disease control priorities (Jamison 2015). Malaria was included with chronic infectious diseases to account for the burden associated with chronic or repeated infections in endemic areas (Chen and others 2016). No restrictions were applied regarding study design, age, language, or country of study. The analysis was limited to studies conducted in low- and middle-income countries (LMICs). Table 6A.1 outlines the search terms.

Table 6A.1 Search Terms for the Literature Review of the Medline, Embase, Cochrane, and Global Health Databases

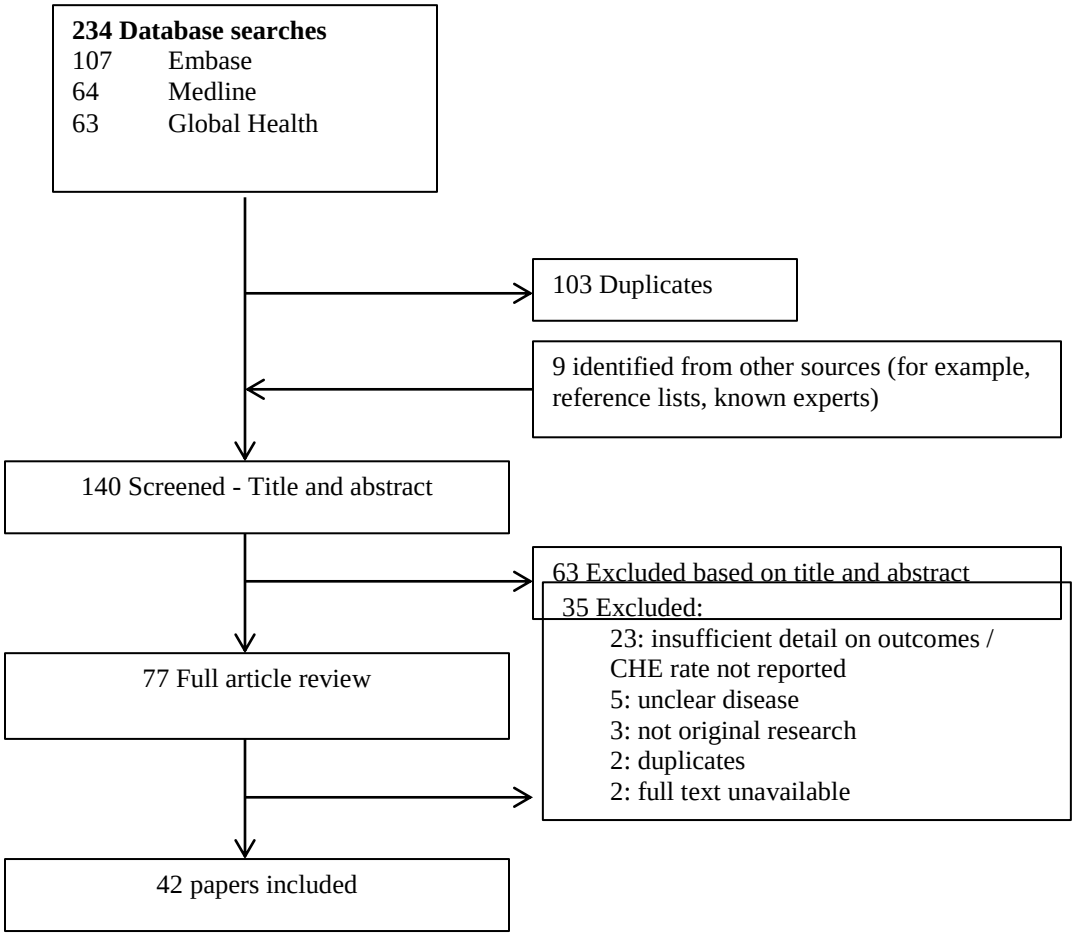
1. hemodial$.mp. or haemodial$.ti,ab. [mp=ti, ab, hw, tn, ot, dm, mf, dv, kw, nm, kf, px, rx, ui, bt, id, cc]	49. exp Cryptosporidium/
2. peritoneal dialy$.ti,ab.	50. Cryptosporidium.ti,ab.
3. home dialysis.ti,ab.	51. exp Entamoeba/
4. dialysis.ti,ab.	52. Entamoeba.ti,ab.
5. kidney treatment*.ti,ab.	53. exp norovirus/
6. (chronic adj3 (kidney* or nephropathy* or renal)).ti,ab.	54. norovirus.ti,ab.
7. 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36	55. calicivirus.ti,ab.
8. exp Chronic obstructive pulmonary disease/	56. Norwalk agent.ti,ab.
9. exp Pulmonary Disease, Chronic Obstructive/	57. 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81 or 82 or 83 or 84 or 85 or 86
10. copd.ti,ab.	58. Children.ti,ab.
11. chronic obstructive lung disease*.ti,ab.	59. 87 and 88
12. chronic obstructive airway disease*.ti,ab.	60. exp Malaria/
13. chronic respiratory disorder$.ti,ab.	61. malaria.ti,ab.
14. Pulmonary Emphysema/	62. exp HIV/
	63. HIV.ti,ab.
	64. exp Acquired Immunodeficiency Syndrome/

15. exp Bronchitis/
16. emphysema.ti,ab.
17. (chronic and (obstruct* adj3 (lung* or pulmonar* or airway*OR bronch* or respirat*))).ti,ab.
18. 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47
19. exp neoplasms/
20. exp lung cancer/
21. exp colon cancer/
22. exp breast cancer/
23. exp Uterine Cervical Neoplasms/
24. exp Prostatic Neoplasms/
25. exp Thyroid Neoplasms/
26. ((lung* or pulmonar* or colon* or colorect* or breast* or uter* or cervi* or prostat* or thyroid*) adj3 (neoplas* or cancer* or carcino* or adeno carcino* or metasta* or sarcom*)).ti,ab.
27. 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56
28. exp Anemia, Iron-Deficiency/
29. exp diarrhea/
30. diarrhea.ti,ab.
31. diarrhoea.ti,ab.
32. exp gastroenteritis/
33. gastroenteritis.ti,ab.
34. exp rotavirus/
35. rotavirus.ti,ab.
36. E*coli.ti,ab.
37. exp Escherichia coli/
38. Escherichia coli.ti,ab.
39. exp Salmonella/
40. Salmonella.ti,ab.
41. exp Shigella/
42. Shigella.ti,ab.
43. exp Campylobacter/
44. Campylobacter.ti,ab.
45. exp Giardia lamblia/
46. Giardia lamblia.ti,ab.
47. exp Vibrio/
48. Vibrio.ti,ab.
65. Acquired Immunodeficiency Syndrome.ti,ab.
66. AIDS.ti,ab.
67. exp Tuberculosis/
68. Tuberculosis.ti,ab.
69. 90 or 91 or 92 or 93 or 94 or 95 or 96 or 97 or 98
70. exp Accidental falls/
71. Falls.ti,ab.
72. exp Accident, traffic/
73. ((Road or traffic*) adj3 accident*).ti,ab.
74. 100 or 101 or 102 or 103
75. exp Anxiety disorders/
76. Anxiety.ti,ab.
77. (Anxi* adj3 (disord* or illness* or disease*)).ti,ab.
78. exp Depressive disorder/
79. (Depress* adj3 (disord* or illness* or disease*)).ti,ab.
80. exp Depression/
81. (Depression adj3 (disord* or illness* or disease*)).ti,ab.
82. 105 or 106 or 107 or 108 or 109 or 110 or 111
83. 7 or 16 or 21 or 37 or 48 or 57 or 58 or 89 or 99 or 104 or 112
84. (catastroph* adj3 (spend* or expend* or cost*)).ti,ab.
85. (financ* adj3 catastroph*).ti,ab.
86. 114 or 115
87. 113 and 116
88. limit 117 to humans
89. remove duplicates from 118

The titles and abstracts of all papers were screened to identify eligible studies, and the full texts of all eligible studies were reviewed. The reference lists of the included studies were reviewed to identify additional publications. A data collection form was prepared to extract relevant study characteristics, and the extracted data were categorized by broad condition, specific disease or

injury, country of study, and World Bank income category. Figure 6A.1 diagrams the process and results of the search.

Figure 6A.1. PRISMA Diagram: Results of the Systematic Search of Studies of Disease-Related CHE



Prevalence of Disease Estimates

Prevalence estimates were drawn from the published literature, based on Global Burden of Disease Study 2013 Collaborators (2015) and global health data repositories such as GLOBOCAN and the World Bank's World Development Indicators. Table 6A.2 outlines the prevalence estimates. We calculated a population-weighted average prevalence for all diseases identified for each income category (that is, low-income, lower-middle-income, and upper-middle-income). Where no studies were found for a particular World Bank income category, published prevalence estimates for common diseases in the condition category were used.

Table 6A.2 Summary of Prevalence and Catastrophic Health Expenditure Rates Used to Estimate the Population with Catastrophic Health Expenditure Related to Chronic Ill-Health and Injuries in Low- and Middle-Income Countries

Condition	Country	Prevalence (%)	CHE rate (%)
Cardiovascular diseases			
Acute coronary syndrome (including acute myocardial infarction and angina)	India	7.00	84.00
Acute myocardial infarction	China	13.00	80.00
	India	7.00	60.00
	Malaysia	13.00	0.00
	Thailand	5.30	77.00
	Vietnam	0.01	38.00
Angina	Bangladesh	14.98	39.40
	India	16.03	33.00
	Myanmar	4.09	6.00
	Nepal	9.31	21.27
	Sri Lanka	6.11	21.87
	Ukraine	7.10	44.20
Cardiovascular disease	Argentina	0.21	11.00
	China	13.00	4.20
	China	13.00	56.60
	India	7.00	82.00
	Mongolia	0.38	11.26
	Tanzania	0.43	84.30
Heart disease	Nepal	5.70	0.50
Stroke	China	3.74	71.00
Endocrine diseases			
Diabetes	Bangladesh	6.90	20.00
	Burkino Faso	3.70	15.00
	Chad	5.80	5.00
	China	8.60	15.00
	Congo, Dem. Rep.	5.90	14.00
	Côte d'Ivoire	5.60	16.00
	Dominican Republic	11.40	15.00
	Ecuador	5.90	26.60
	Ethiopia	5.50	7.00
	Georgia	2.60	10.00
	Ghana	3.80	12.00
	Greece	4.80	7.10
	India	9.10	23.00
	Kazakhstan	5.00	15.00
	Kenya	4.50	10.00
	Lao PDR	5.00	20.00
	Malawi	5.60	5.00

Condition	Country	Prevalence (%)	CHE rate (%)
	Malaysia	17.60	5.00
	Mali	1.60	8.00
	Mauritania	5.20	8.00
	Mexico	12.60	8.00
	Myanmar	6.10	8.00
	Namibia	6.90	5.00
	Nepal	5.00	1.10
	Pakistan	7.90	15.00
	Paraguay	7.00	15.00
	Philippines	6.70	11.00
	Russian Federation	5.00	9.00
	Senegal	5.10	17.00
	Sri Lanka	7.80	14.00
	South Africa	9.40	7.00
	Swaziland	4.30	6.00
	Tunisia	9.40	22.00
	Ukraine	2.60	20.00
	United States	9.40	13.00
	Uruguay	5.80	4.00
	Vietnam	5.70	8.00
	Zambia	5.00	1.70
Respiratory diseases[a]			
Asthma	Myanmar	3.24	3.00
COPD	Australia	4.20	46.00
	Greece	5.60	8.70
Pulmonary (undefined)	United States	6.30	5.90
Renal diseases[a,b]			
Chronic kidney disease	Korea, Rep.	13.70	23.60
	Australia	10.00	71.00
Kidney (undefined)	United States	0.0037	9.80
Cancers			
Cancer (breast, uterine, cervical, colorectal, mouth, pharynx, ovarian, stomach, tracheal, bronchial, lung)	Low-income region (Cambodia)	0.29	38.00
	Lower-middle income region (Indonesia, Lao PDR, Myanmar, Philippines, Vietnam)	0.34	48.00
	Upper-middle income region (Malaysia, Thailand)	0.48	3.00
Leukemia	Mexico	0.01	14.00
Hepatocellular carcinoma	China	1.60	49.60

Condition	Country	Prevalence (%)	CHE rate (%)
Cancer (breast, gastrointestinal, liver, other)	Iran, Islamic Rep.	0.29	67.9%
		1.52	6.20
Chronic infectious diseases			
Hepatitis B	China	20.00	41.5
HIV/AIDS	Cameroon	4.30	44.50
	Côte d'Ivoire	3.40	12
	Lao PDR	0.30	65.35
	South Africa	19.10	36.81
	Vietnam	0.26	35.1
Malaria	Congo, Dem. Rep.	42.00	81.10
	Mozambique	22.0	36.55
	South Africa	10.00	9.50
Tuberculosis	Benin	0.089	71.8
	China	0.089	67.56
	Peru	0.16	39.00
Injuries			
Injury, assault	Vietnam	3.60	4.70
Injury, blunt objects	Vietnam	0.0058	21.20
Injury, burns	Vietnam	0.68	31.80
Injury, falls	Vietnam	0.0022	33.00
Injury, sharp objects	Vietnam	0.0058	31.30
Injury (undefined)	Nepal	13.10	0.80
Road traffic accidents	India	0.019	46.00
	Vietnam	0.025	31.30

Note: CHE = catastrophic health expenditure; COPD = chronic obstructive pulmonary disease; HIV/AIDS = human immunodeficiency virus/acquired immunodeficiency syndrome.

a. Published CHE rates were not available for each World Bank income category. Case catastrophe rates were calculated using data from studies conducted in high-income countries.

b. CHE rate of 100%, reported for renal replacement therapy in Thailand (Prakongsai and others 2009), was excluded from the calculation of the case catastrophe rate for renal disease.

Population Estimates

Population estimates were sourced from World Bank data. The proportion of each World Bank income category represented by the study countries was calculated to provide an indication of the extent of the data coverage in this analysis.

Prevalence of CHE in Population with a Disease or Injury Estimates

The predicted population with CHE, P(CHE), associated with each condition in low-income, lower-middle, and upper-middle income countries, was estimated as follows:

Equation 6A.1

$$P(CHE)_{c,y} = Prev_{c,y} \times CCR_{c,y} \times TU_{y},$$

where $_c$ = condition (chronic infectious diseases; cardiovascular diseases; respiratory diseases; renal diseases; endocrine diseases; cancers; injuries; maternal, infant, and childhood conditions; and mental illnesses); $_y$ = World Bank income category (low-income, lower-middle-income, and upper-middle-income); $Prev_{c,y}$ = population-weighted average prevalence of each condition and World Bank income category; $CCR_{c,y}$ = case catastrophe rate (population-weighted average CHE rate for each condition and World Bank income category); and TU_y = treatment uptake (estimated proportion of the prevalent population who undergo treatment by World Bank income category).

For the case catastrophe rate (CCR), the published rates of CHE were used to calculate the potential population with disease-related CHE in each country. CCR was calculated as a population-weighted average for each World Bank income category within each condition. Where no studies were found for a particular World Bank income category, the CCR of the next higher income group was used to calculate P(CHE). For example, if the CCR was missing for injuries in low-income countries, the CCR for the lower-middle-income countries was used. Where there were data gaps for low-, lower-middle-, and upper-middle-income regions, CCRs were calculated using data from studies conducted in high-income countries.

Treatment uptake (TU) was included to account for the variability in access to treatment. Access to treatment can be influenced by various factors, including the affordability, acceptability, and availability of treatment options in any setting (McIntyre, Thiede, and Birch 2009), and accessing and using treatment are a necessary condition for having CHE. Treatment uptake is suboptimal for many chronic conditions (Goeppel and others 2016; Khatib and others 2016; Lange and others 2004; Li and others 2016), partly related to the poor availability and affordability of medicines. To account for this potential gap in treatment uptake, we used the average of the rates of treatment availability for urban and rural communities, as reported by Khatib and others (2016): for upper-middle-income countries, uptake was 80 percent for urban and 73 percent for rural communities; for lower-middle-income countries, uptake was 62 percent for urban and 37 percent for rural communities; and for low-income countries, uptake was 25 percent for urban and 3 percent for rural communities. The TU rates were applied to all conditions.

Results

The systematic search identified 41 studies (42 published papers) that reported rates of disease-related CHE. Table 6A.3 summarizes the characteristics of the studies found. Table 6A.4 describes the proportion of studies in each income category for each condition.

Table 6A.3 Summary of Characteristics of Studies Identified from the Systematic Search

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
Daivadanam and others 2012	CVD: acute coronary syndrome	2008	India	Cross-sectional; random; hospital; 201	Hospitalization, medication, consultations, informal payments, travel, food, lodging, caregiver expenses; loss of income, change of job, denial of promotion, wage loss due to illness	Lower-middle
Jan and others 2016	CVD: acute myocardial infarction	2008	China; Hong Kong, China; India; Korea, Rep.; Malaysia; Singapore; Thailand; Vietnam	Cohort; convenience; hospital; 9,373	Hospitalization, insurance reimbursements, out-of-pocket costs (undefined)	Lower-middle; upper-middle
Murphy and others 2013	CVD: angina	2003	Ukraine	Cross-sectional; random; household; 203	Health care spending (undefined)	Lower-middle
Alam and Mahal 2014	CVD: angina	2003	Bangladesh, India, Nepal, Sri Lanka	Cross-sectional; random; household; 2,771	Inpatient or outpatient care, traditional or alternative medicine, dental healers, medicines, equipment, laboratory services, others	Lower-middle
Htet, Alam, and Mahal 2015	CVD: angina, asthma	2002–03	Myanmar	Cross-sectional; random; household; 446	Inpatient or outpatient care, dental care, traditional or alternative healers, medicines, equipment, diagnostic and laboratory tests	Lower-middle
Saito and others 2014	CVD: heart disease Endocrine: diabetes Injuries: injuries (undefined)	2011–12	Nepal	Cross-sectional; random; household; 1,997	Hospitalization, consultation or diagnosis fees, medicines, medical supplies, traditional healers, homeopathic or ayurvedic treatments, home remedies	Low
Choi 2015	CVD: cerebrovascular disease, ischemic heart disease	2008	Korea, Rep.	Cross-sectional; random; household; 1,386	Medical consultations, medicines, hospitalizations	High

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
	Renal: chronic kidney disease Endocrine: diabetes Cancers: cancer					
Sun and others 2015	CVD: CVD (undefined)	2014	Mongolia	Cross-sectional; random; household; 949	Expenditures incurred in the health sector, pharmacies and expenditures incurred by patients and family members for transportation, accommodation and food	Upper-middle
Zhao and others 2012	CVD: CVD (undefined)	Not reported	China	Cross-sectional; random; household; 3,299	Not reported	Upper-middle
Huffman and others 2011	CVD: acute coronary syndrome, stroke, acute heart failure, peripheral vascular intervention	2008–09	Argentina, China, India, Tanzania	Cross-sectional; random; hospital; 1,655	CVD treatment including indirect costs	Low, lower-middle, upper-middle, high
Heeley and others 2009	CVD: stroke	2006	China	Cohort; convenience; hospital; 4,739	Medical consultations, hospitalization, medicines, equipment	Upper-middle
Jiang and others 2012	Chronic conditions	2008	China	Cross-sectional; random; household; 39,054	Not reported	Upper-middle
Essue and others 2013	Renal: chronic kidney disease	2010–11	Australia	Cross-sectional; convenience; health care facility; 247	Prescription and nonprescription medicines, medical consultations, hospitalizations, medical tests, medically related transportation, home and self-care assistance, medical equipment and supplies, illness-related home modifications, special food	High
Skroumpelos and others 2014	Respiratory: COPD Endocrine: diabetes	2013	Greece	Cross-sectional; not reported; household; 1,594	Primary and secondary health care payments and medicines	High
Essue and others 2011	Respiratory: COPD	2009	Australia	Cross-sectional; convenience; health care facility; 218	Medical expenses (medical consultations, tests, medicines, medical	High

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
					equipment) and nonmedical expenses (transport, home care)	
Smith-Spangler, Bhattacharya, and Goldhaber-Fiebert 2012	Endocrine: diabetes	2002–03	Bangladesh, Burkino Faso, Chad, China, Congo, Dem. Rep., Côte d'Ivoire, Dominican Republic, Ecuador, Ethiopia, Georgia, Ghana, India, Kazakhstan, Kenya, Lao PDR, Malawi, Malaysia, Mali, Mauritania, Mexico, Myanmar, Namibia, Pakistan, Paraguay, Philippines, Russian Federation, Senegal, South Africa, Sri Lanka, Swaziland, Tunisia, Ukraine,	Cross-sectional; random; household; 121,051	Not reported	Low, lower-middle, upper-middle

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
			Uruguay, Vietnam, Zambia			
Banthin and Bernard 2006	Endocrine: diabetes, endocrine CVD: heart disease, stroke Renal: kidney Respiratory: pulmonary Cancers: cancer	2003	United States	Cross-section; random; household; 101,191,777	All health care services excluding premium payments	High
Prakongsai and others 2009	Renal: renal replacement therapy	2005	Thailand	Qualitative; convenience; health care facility; 20	Health care spending (undefined)	Upper-middle
Jan and others 2015	Cancers: breast, uterus, cervix, colon, rectum, mouth, pharynx, ovarian, stomach, trachea, bronchus, lung	2012–13	Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Vietnam	Cohort; convenience; health care facility; 4584	Hospital and nonhospital health care costs (undefined)	Low, lower-middle, upper-middle
Kimman and others 2015	Cancers: gastrointestinal, gynaecological, haematological, head and neck, lung, other	2012–13	Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, Vietnam	Cohort; convenience; health care facility; 4,584	Hospital and nonhospital health care costs (undefined)	Low, lower-middle, upper-middle
Davidoff 2013	Cancers: unspecified	1997–2007	United States	Cohort; random; administrative data; 1,868	Direct payments to providers and unpaid liabilities	High
Kavosi and others 2014	Cancers: cancer	2011	Iran, Islamic Rep.	Cross-sectional; random; health care facility; 245	Hospitalization, outpatient services, chemotherapy, radiotherapy,	Upper-middle

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
					medicines, radiology, laboratory analyses	
Choi and others 2014	Cancers: cancer	2008–11	Korea, Rep.	Cohort; random; community; 211	Not reported	High
Rocha-Garcia and others 2003	Cancers: leukemia	1997	Mexico	Cross-sectional; convenience; health care facility; 51	Hospitalization, transport, food, other, medicines, home assistance	Upper-middle
Che and others 2016	Chronic infections: hepatitis B	2012–13	China	Cross-sectional; convenience; hospital; 740	Clinic registration, medical consultations, medicines, transportation, nutrition supplements, nursing assistance	Upper-middle
Beauliere and others 2010	Chronic infections: HIV/AIDS	2007	Côte d'Ivoire	Cross-sectional; convenience; health care facility; 1,275	Medicines, medical consultations, hospitalization, non-CD4 tests, nonmedical health-related expenditures (disease-related transportation, housing near health facilities)	Lower-middle
Boyer and others 2014	Chronic infections: HIV/AIDS	2006-07	Cameroon	Cross-sectional; random; health care facility; 3,151	Medicines (antiretroviral, other), medical consultations, hospitalization, pathology tests, traditional healer consultations, transportation	Lower-middle
Cleary and others 2012	Chronic infections: HIV/AIDS	2012	South Africa	Cross-sectional; convenience; health care facility; 1,267	Medical consultations, medicines (prescription, traditional, over-the-counter), transport, childcare while attending appointments, accommodation, telephone costs, self-care, special food, traditional healers	Upper-middle
Tran and others 2013	Chronic infections: HIV/AIDS	2012	Vietnam	Cross-sectional; convenience; health care facility; 1,016	Medicines, pathology tests, hospitalization, transportation, accommodation, special meals	Lower-middle
Moshabela and others 2012	Chronic infections: HIV/AIDS	2008–09	South Africa	Cross-sectional; convenience; health care facility; 1,266	Medical consultations, traditional medicines, spaza shops, special food	Upper-middle

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
Barennes and others 2015	Chronic infections: HIV/AIDS	2009	Lao PDR	Cross-sectional; convenience; hospital; 2009	Medical consultations, drugs, medical exams, transportation, accommodation	Lower-middle
Castillo-Riquelme, McIntyre, and Barnes 2008	Chronic infections: malaria	2001–02	Mozambique, South Africa	Cross-sectional; convenience; health care facility; 1,355	Hospitalization, transport, medicines, medical consultations, tests, other	Low, Upper-middle
Ilunga-Ilunga and others 2015	Chronic infections: malaria	2011	Congo, Dem. Rep.	Cohort; convenience; hospital; 1,350	Direct health care expenses (undefined), hospitalization	Low
Laokri and others 2014	Chronic infections: tuberculosis	2008–09	Benin	Cross-sectional; convenience; health care facility; 245	Medical consultations, pathology tests, medicines, hospitalizations, transport, traditional healers, food supplements, self-medication and traditional remedies, in-kind spending	Low
Wingfield and others 2014	Chronic infections: tuberculosis	2002–09	Peru	Cohort and case-control; convenience; household; 1,363	Medical consultations, prescribed medicines, natural nonprescribed remedies, transport, special food, other	Upper-middle
Chen and others 2015	Chronic infections: tuberculosis	2012	China	Cross-sectional; random; community; 765	Direct health service expenses (undefined), indirect expenses (transport and accommodation costs, associated additional household costs, household income forgone)	Upper-middle
Nguyen and others 2013	Injuries: assault, blunt objects, burns, falls, sharp objects, road traffic injuries, other	2010	Vietnam	Cohort; convenience; health care facility; 892	Hospitalization, medicines (prescribed, over-the-counter), equipment, transportation, accommodation, indirect costs (lost productivity)	Lower-middle
Kumar and others 2012	Injuries: road traffic injuries	2005–06	India	Cohort; convenience; health care facility; 723	Medical consultations, diagnostics, medicines, surgery, hospitalization, autopsy, rehabilitation or physiotherapy, ambulance cost, medical care after discharge from hospital, food, phone, transportation of family or caregivers,	Lower-middle

Study	Category of condition or disease	Year	Country	Study design; sampling; setting; sample size	Out-of-pocket costs measured	National income group
					repair of vehicle, legal expenses, compensation paid to the other party involved in crash, costs of obtaining death certificate, funeral and bribes paid	
Dalaba and others 2015	Maternal complications: preeclampsia, anemia or malaria, hemorrhage, infection, abdominal pains, prolonged labor	2012–13	Ghana	Cross-sectional; convenience; health care facility; 60	Medicines, pathology tests, equipment, food, transportation, productivity lost	Lower-middle
Burke 2014	Rotavirus	2007–09	Bolivia	Cross-sectional; convenience; health care facility; 1,107	Diagnostics, medicines, medical consultations, costs of previous treatment for same diarrheal episode, transportation, food, diapers, childcare for the caregiver's other children	Lower-middle
Loganathan and others 2015	Rotavirus	2008–10	Malaysia	Cohort; convenience; health care facility; 248	Medical consultations medicines, hospitalizations, transportation, diapers, special food, lost productivity (parents)	Upper-middle
Patel and others 2007	Depressive disorders	2001–03	India	Cross-sectional, random, community; 2,494	Outpatient visits, hospitalization, treatment, medicines medical consultations, lost time	Lower-middle

Table 6A.4. Proportion of Studies in Each World Bank Country Income Category, by Category of Condition
% of studies

Condition category	Low-income	Lower-middle-income	Upper-middle-income	High-income
Cardiovascular diseases	12.9	57.8	62.0	30.4
Endocrine diseases	31.3	72.6	69.3	37.7
Respiratory diseases	—	1.8	—	25.3
Renal diseases	—	—	—	28.1
Cancers	2.5	17.5	70.5	26.4
Chronic infectious diseases	18.1	4.9	61.4	—
Injuries	4.5	48.1	—	—

Note: — = no studies for a given region.

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