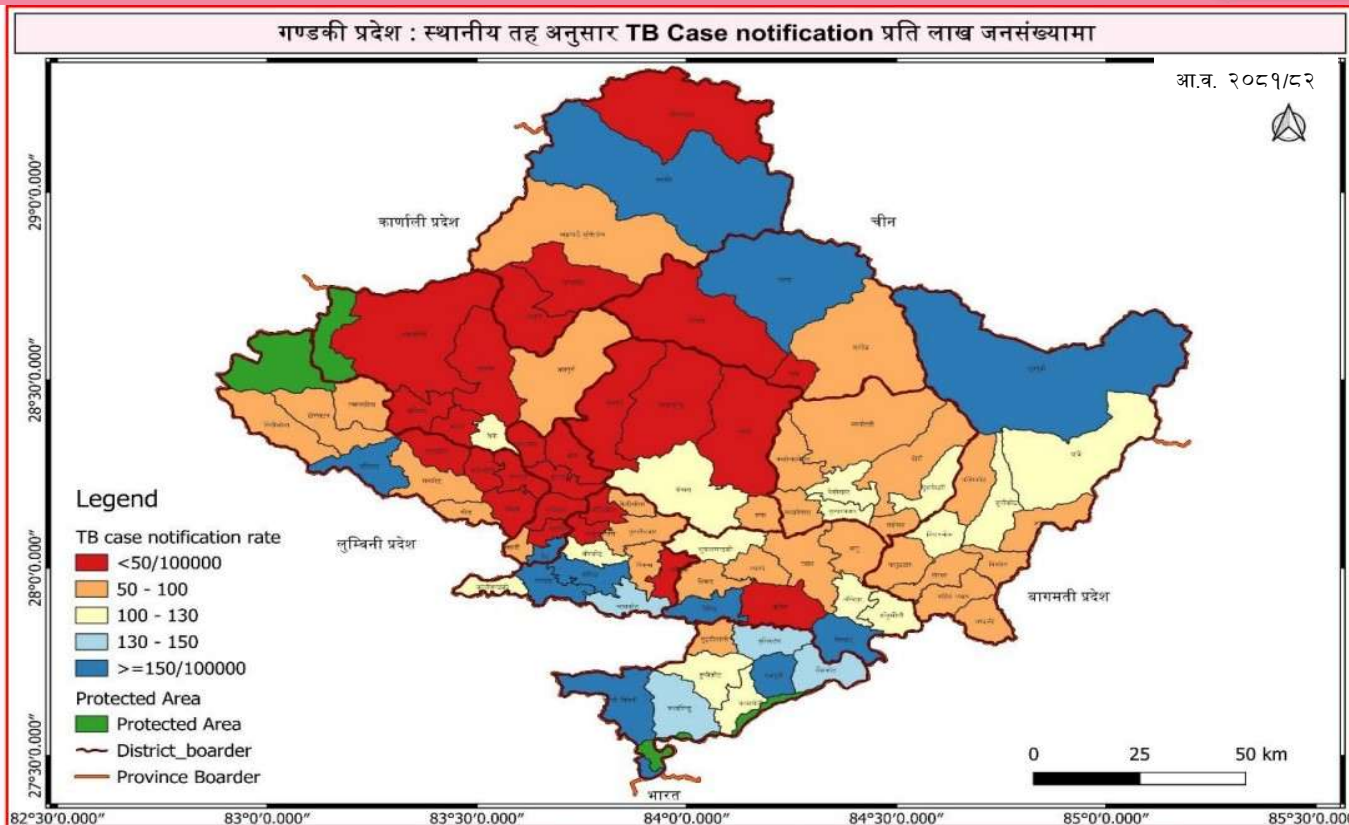


NATIONAL TUBERCULOSIS PROGRAM

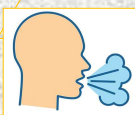
GANDAKI PROVINCE TB FACT SHEET FY 2081/82



Almost half of Nepal's population are infected with TB (Latent Infection)

Every Year (DSTB) (Estimated)

2801 DSTB cases Notified



5504 New TB Cases



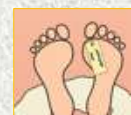
2703 TB cases Missed



Male: 62%



Female: 38%



1390 Death

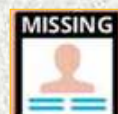


TB is the major leading causes of death in Nepal

Each Day (Estimated)



15 New TB cases



8 TB cases Missed



4 Death



Almost half of Nepal's population are infected with TB (Latent Infection)

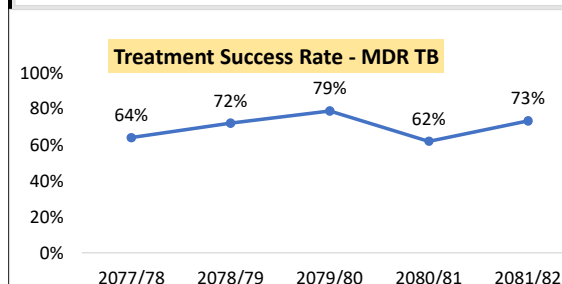
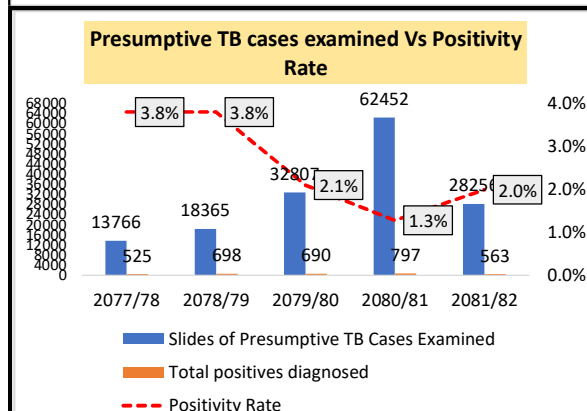
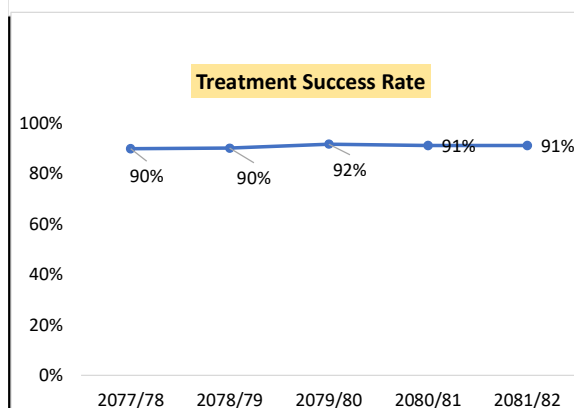
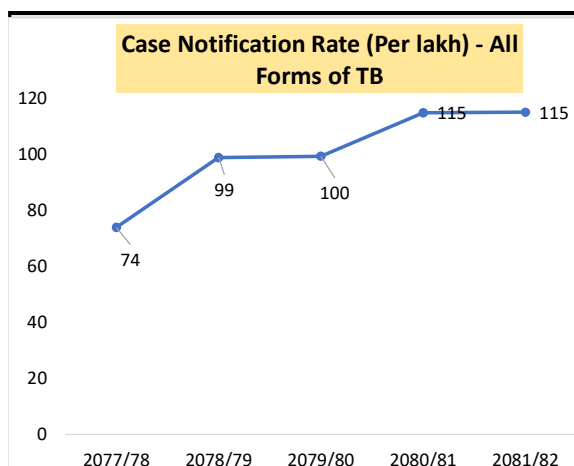
क्षयरोग एक सरुवा रोग हो जुन माईकोब्याक्टेरियम ट्यूबरकुलोसिस (Mycobacterium Tuberculosis) भन्ने आंखाले देख्न नसकिने किटाणुबाट हुन्छ । यो किटानुलाई Acid Fast Bacilli (AFB) पनि भनिन्छ। यो रोग एक न्यक्तिबाट अर्को न्यक्तिमा श्वास प्रश्वासको माध्याबाट सर्दछ ।

क्षयरोगका निदान र उपचार:

राष्ट्रिय क्षयरोग कार्यक्रम स्वास्थ्य मन्त्रालयको एउटा प्राथमिकता प्राप्त कार्यक्रम हो । यस अन्तर्गत क्षयरोगको निदान र उपचार सेवा देश भरिका सबै सरकारी स्वास्थ्य सस्थाहरुमा निःशुल्क उपलब्ध छन् ।



Gandaki Province Government
Ministry of Health
Provincial Center for Disease Control
Gandaki Province, Pokhara, Nepal



क्षयरोग र एच.आई.भि: एच.आई.भि. संक्रमणले क्षयरोग हुने संभावना ३० गुणाले वृद्धि गर्दछ। सबै क्षयरोगका बिरामीको एच.आई.भि. र सबै एच.आई.भि. संक्रमितहरूको क्षयरोग परीक्षण अनिवार्य रूपमा गर्नु पर्दछ।

क्षयरोग र मधुमेह: मधुमेह भएकाहरूलाई क्षयरोग हुने संभावना बढी हुन्छ। मधुमेहको कारणले क्षयरोग बल्लिस्ने र निको नहुन पनि सक्छ। क्षयरोगका बिरामीले चिकित्सकको सल्लाह अनुसार मधुमेहको परीक्षण गर्नु पर्दछ र सबै मधुमेह भएकाहरूले क्षयरोगको परीक्षण गर्नु पर्दछ।

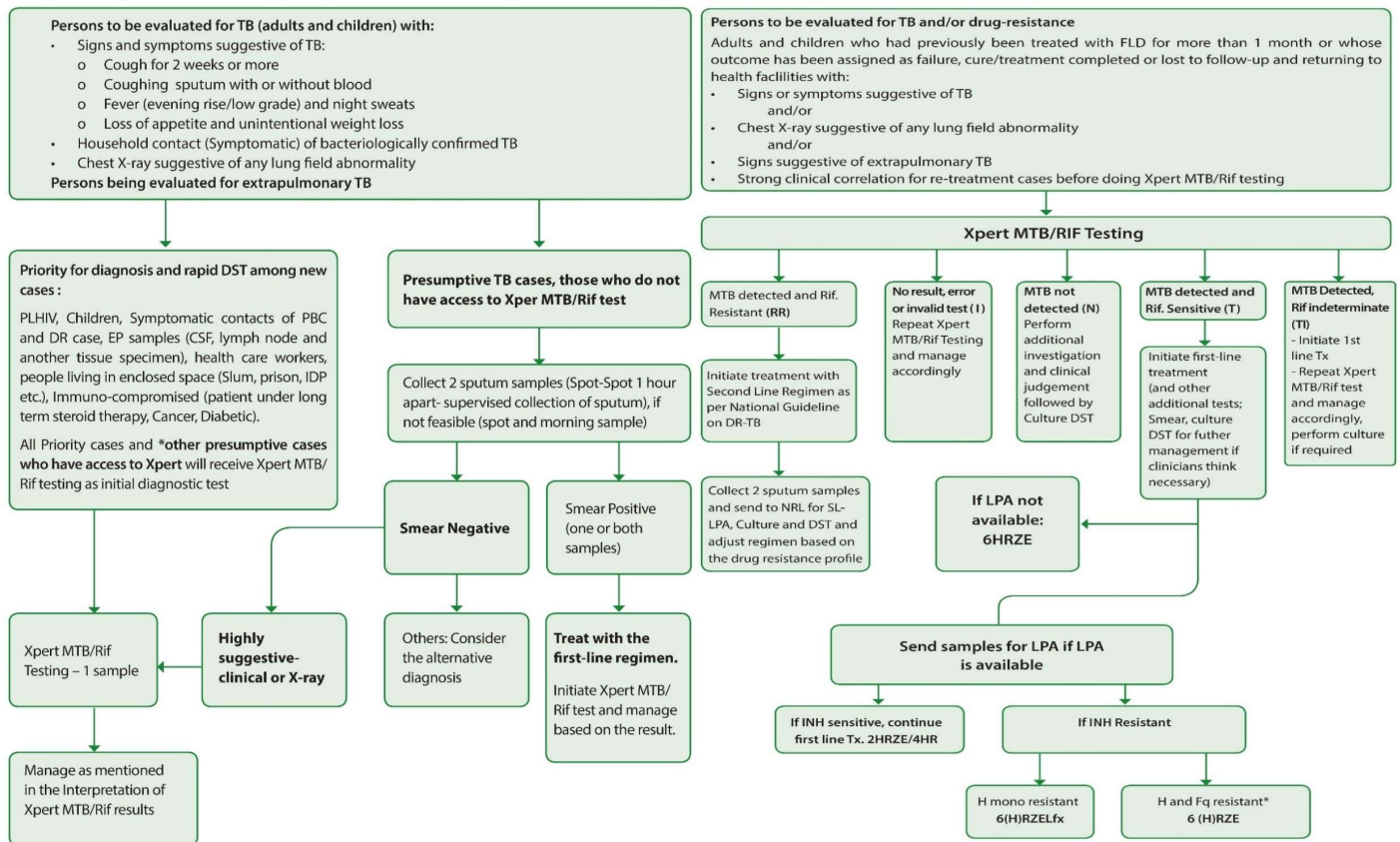
TB burden estimates, 81/82	Number	Rate (Per 1 lakh popln)
Total TB incidence	5504	229 (141-359)
HIV positive TB incidence	37	1.3(1-2.6)
MDR/RR-TB incidence	191	7.6 (3.1-14)
HIV negative TB mortality	1456	58 (32-92)
HIV positive TB mortality	19	0.77 (0.45-1.2)
Estimated proportion of TB cases with MDR/RR-TB³		
New Cases		2.2% (1.1-3.6)
Previously Treated Cases		15.4% (9.6-22)
TB case notifications, 2081/82		
Total new and relapse		2801
% with known HIV status		98%
% pulmonary		75%
% bacteriologically confirmed among pulmonary		70%
% children aged 0-14 years		2.6%
% women		39%
% men		61%
Total cases notified		2801
TB/HIV care in new and relapse TB patients, 2081/82		
	Number	(%)
Patients with known HIV-status who are TB-positive	35	12.0%
On antiretroviral therapy	33	94%
Drug-resistant TB care, 2081/82		
Laboratory-confirmed cases		MDR/RR-TB: 19
Patients started on treatment		MDR/RR-TB: 38
Treatment success rate and cohort size		
	Success	Cohort
New and relapse cases registered in 2080/81	91%	2766
Previously treated cases, excluding relapse, registered in 2080/81	86%	59
MDR/RR-TB cases started on second-line treatment in 2080/81	26%	47
Pre - XDR-TB cases started on second-line treatment in 2080/81	100%	5
XDR-TB cases started on second-line treatment in 2080/81	0%	1
TB preventive Therapy, 2081/82		
% of children (aged <5) household contacts of bacteriologically-confirmed TB cases on preventive treatment (Enrollment Rate)		95.93 (189)
Presumptive slides examined Vs positivity rate, FY 2081/82		
Presumptive slides examined		25076
Positivity rate		1.9%
Rate of Yield of MTB cases from GeneXpert and proportion of RR MTB cases, FY 2081/82		
Total GeneXpert Tested		14496
MTB Detected (%)		10%
RR MTB Detected (%)		1.4%

सम्पर्क परीक्षण तथा Tuberculosis Preventive Therapy (TPT): सबै पि.बि.सि (PBC) बिरामीको घर परिवारको सदस्यहरूमा सम्पर्क परीक्षण गर्नु पर्दछ। सम्पर्क परीक्षण गर्दा उक्त बिरामीको सम्पर्कमा रहेका घर परिवारको सदस्यहरूमा क्षयरोगको लक्षणहरू छ वा छैन भन्ने निक्क्योल गर्नु पर्दछ। यसरी सम्पर्क परीक्षण गर्दा उक्त घरमा ५ वर्ष भन्दा मुनिका बच्चाहरू छन् र उनीहरूमा क्षयरोगको लक्षणहरू नभएको खण्डमा सो बच्चालाई क्षयरोग सर्न नदिनको लागि रोकथाम उपचार (Preventive Therapy) दिनु पर्दछ। TB Preventive Therapy मा रहेका बच्चाहरूलाई ३ महिनाको लागि Child HR वा HP औषधी दिइने गरिन्छ।

Tuberculosis Profile, Gandaki Province FY 2081/82															
Program Indicators	National 2081/82	Gandaki Province			District										
		2079/80	2080/81	2081/82	Baglung	Gorkha	Kaski	Lamjung	Manang	Mustang	Myagdi	Nawalpara si East	Parbat	Syangja	Tanahun
Number of Service Sites															
DOTS Center	6241	788	0	829											
DR Treatment Centers	31	3	3	3	1	-	1	-	-	-	-	1	-	-	-
DR Treatment Sub-Centers	98	11	11	11	-	1	3	1	-	-	1	-	1	2	2
DR Home	1	1	1	1	-	-	-	-	-	-	-	-	-	-	1
DR Hostel	6	1	1	1	-	-	-	-	-	-	-	1	-	-	-
DR TB Referral Centers	3	1	1	1	-	-	-	-	-	-	-	1	-	-	-
TB Designated Microscopy Centers	785	101	101	101	14	12	13	8	2	2	4	13	9	11	13
mWRD (Xpert MTB/RIF) sites	117	9	10	10	2	1	3	1	-	-	-	1	-	1	1
mWRD (Xpert MTB/XDR) sites	21	3	3	3	1	-	1	-	-	-	-	1	-	-	-
Solid Culture	2	1	1	1	-	-	1	-	-	-	-	-	-	-	-
TB Case Notification															
Total Notified TB Cases (All Forms of TB)	39151	2500	2766	2801	263	281	652	104	4	16	51	673	83	347	327
Case Notification Rate (All Forms of TB)	133	100	115	112.91	109.9	115.8	101.4	69.9	74.8	121.1	49.5	169.4	68.0	146.8	98.8
Types of TB															
PBC	22821	1373	1573	1468	129	131	333	57	2	3	21	391	37	180	184
PCD	5539	393	450	622	56	99	102	12	0	3	9	147	24	94	76
EP	10791	734	743	711	78	51	217	35	2	10	21	135	22	73	67
Total TB cases	38563	2500	2766	2801	263	281	652	104	4	16	51	673	83	347	327
Distribution By Age and Sex															
Female	15269	933	1049	1100	102	110	286	32	2	6	23	272	28	125	114
Male	23882	1567	1715	1701	161	171	366	72	2	10	28	401	55	222	213
Child (0-14)	2192	85	89	74	6	7	22	1	0	0	1	16	2	10	9
Age Group (15-64)	26897	1822	2033	1775	144	155	466	75	3	14	33	433	59	182	211
Age Group (65+)	10062	593	642	952	113	119	164	28	1	2	17	224	22	155	107
Contribution by Sectors (%)															
Community	13%	6.3%	6.3%	12.1%	21.3%	28.5%	6.0%	7.7%	25.0%	12.5%	3.9%	5.2%	15.7%	20.5%	12.2%
Private	27%	28.6%	26.6%	25.2%	19.4%	12.8%	40.3%	32.7%	75.0%	50.0%	29.4%	19.5%	26.5%	23.9%	28.2%
TB/HIV (%)															
Total HIV Test	93.9%	98.8%	99.3%	98.4%	99.6%	97.2%	98.5%	93.3%	100.0%	93.8%	96.1%	100.0%	90.4%	99.7%	98.2%
Total Positive	0.7%	1.0%	1.3%	1.2%	0.8%	0.7%	2.0%	1.0%	0.0%	0.0%	7.8%	0.3%	1.2%	1.7%	1.2%
Total ART enrollement	88.5%	100.0%	94.3%	94.3%	100.0%	100.0%	92.3%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%
Microscopic Examination															
Presumptive TB Examined	322155	32807	62452	28256	2594	1400	10999	3426	0	77	63	4839	503	2143	2212
Sputum Positive	10253	690	797	563	29	30	224	8	0	0	0	183	10	30	49
Positivity Rate (%)	3.2%	2.1%	2.20%	1.99%	1.12%	2.14%	2.04%	0.23%	0.00%	0.00%	0.00%	3.78%	1.99%	1.40%	2.22%
GeneXpert Test															
Total Test performed	178692	11674	18301	14496	1314	804	8326	388	0	0	0	1884	0	938	842
MTB Notified	24485	1174	1454	1387	87	82	699	31	0	0	0	282	0	87	97
Rif Resistance Detected	625	27	43	19	3	1	4	0	0	0	0	7	0	1	3
GeneXpert Utilization Rate (%)	49%	44.9%	55.0%	28.8%	18.3%	17%	43.4%	8.1%	0	0	0	39.3%	0	19.5%	17.5%
Positivity Rate (%)	14%	11.0%	8.2%	9.7%	6.8%	10.3%	8.4%	8.0%	0.0%	0.0%	0.0%	15.3%	0.0%	9.4%	11.9%
DS TB Treatment Outcome (%)															
Treatment Success Rate	92.0%	91.8%	89.7%	91.3%	88.0%	91.6%	91.8%	91.0%	33.3%	78.6%	82.9%	93.4%	75.4%	94.6%	91.3%
Death Rate	2.9%	3.5%	4.6%	4.4%	6.5%	2.9%	5.5%	2.9%	0.0%	6.3%	0.0%	4.2%	7.2%	3.2%	4.3%
DR TB Case Notification															
MDR-Shorter Regimen	179	31	28	23	4	-	2	-	-	-	-	17	-	-	-
MDR - Longer Regimen	131	23	29	24	0	-	10	-	-	-	-	14	-	-	-
PRE_XDR	86	5	10	5	0	-	4	-	-	-	-	1	-	-	-
XDR	4	1	1	1	0	-	0	-	-	-	-	1	-	-	-
Total DR TB Cases Notified	400	60	68	53	4	-	16	-	-	-	-	33	-	-	-
MDR/RR TB Treatment Outcome (%)															
Treatment Success Rate	76.0%	78.9%	71.7%	73.3%	100.0%	-	68.4%	-	-	-	-	72.2%	-	-	-
Death Rate	13.0%	10.5%	9.4%	11.7%	0.0%	-	15.8%	-	-	-	-	11.1%	-	-	-

Diagnosis and Treatment Algorithm (New Cases)

Diagnosis & Treatment Algorithm (Retreatment Cases)



क्षयरोगको परिमार्जित उपचार रेजिमेन

Types of TB		Intensive Phase	Continuation Phase
New TB Cases		2HRZE	4HR
-Adult and Childhood			
-Bacteriological or clinically diagnosed			
-Pulmonary or extra pulmonary			
Complicated/Severe EP Cases (CNS TB, TB pericarditis, Musculoskeletal TB etc) and Miliary TB		2HRZE	7-10 HRE*
Retreatment Cases		2HRZE	4HR
All forms			
1 st Rapid DST with Xpert MTB/Rif testing should be done to see the status of resistance to Rifampicin			
Followed by LPA among those having MTB+ve and Rifampicin sensitive for isoniazid(INH) resistance status			
Xpert MTB/RIF-Rifampicin Sensitive		2HRZE	4HR
LPA- Isoniazid sensitive			
Xpert MTB/RIF-Rifampicin Sensitive		6(H)RZE + Levofloxacin (Full duration)	
LPA- Isoniazid Resistant and FQ Sensitive			
Xpert MTB/RIF-Rifampicin Sensitive		6HRZE (Full duration)	
LPA- Isoniazid not known because of no access to LPA			
Rifampicin Sensitive		6(H)RZE	
Isoniazid Resistant and FQ Resistant**			

MDR/RR TB treatment regimen in Nepal						
Regimen	MDR/RR TB FQ Susceptible	Pre-XDR-TB	XDR-TB	Extensive Pulmonary	Extrapulmonary TB	Age<14 yrs
6-month BPALM/BPaL	Yes (BPALM)	Yes(BPaL)	No	Yes	Yes-except TB involving CNS/ Meningitis, Miliary TB, Osteoarticular TB and pericardial TB	No
9 month all oral regimen(OSSTR)	Yes	No	No	No	Yes-except TB involving CNS/ Meningitis, Miliary TB, Osteoarticular TB and pericardial TB	Yes
18 months Longer Regimen	Yes*/No	Yes*/No	yes	Yes	Yes	Yes

जिन एक्सपर्ट (Gene Xpert): जिन एक्सपर्ट खकार जाँच गर्ने नयाँ प्रविधि हो। यसले २ घण्टामा नै क्षयरोग भए/नभएको पता लगाउनुको साथै क्षयरोगको औषधी मध्येको प्रभावकारी औषधी रिफाम्पिसिन औषधीको Sensitivity पनि पता लगाउँछ। गण्डकी प्रदेशमा तलका स्वास्थ्य संस्थामा जिन एक्सपर्ट जाँच गरिन्छ साथै Xpert XDR पनि नयाँ प्रविधि हो जुन क्षयरोग उपचार केन्द्र, पोखरा, धौलागिरि अस्पताल र मध्यविन्दु अस्पतालमा छ।

