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Access to Essential Medicines in Nepal: Bridging Evidence, Policy, and Practice

with a focus on pain management and palliative care

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**KATHMANDU
CANCER CENTER**

Advanced Care, Better Results

Rationale



56.8M

People need
palliative
care globally
each year



71.1%

Deaths in Nepal
from
non-
communicable
diseases



43.7%

Cancer patients
with
inadequate pain
management



“Access to medicine is not just availability. It is a system issue spanning procurement, affordability, training, and policy.”

What Do We Mean by "Access"?

A multi-dimensional framework



Availability

Is the medicine physically present at the health facility?



Affordability

Can patients pay for it without financial hardship?



Accessibility

Can patients in rural areas actually reach a facility that stocks it?



Appropriate Use

Are healthcare workers trained to prescribe and dispense correctly?

Objective

To bring together findings from published studies on medicine access, pain management, and palliative care in Nepal, **and recommend what needs to change**

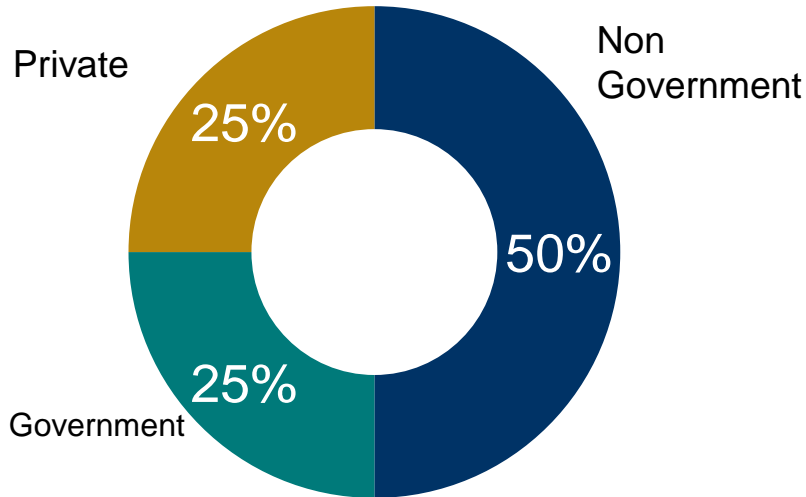
Methodology

This presentation synthesizes findings from five published studies:

Study	Journal / Year
Palliative Care Services & Essential Medications in Nepal	J Pain Palliat Care Pharmacother, 2024
Opioid Accessibility for Palliative Care in Nepal	Indian J Palliat Care, 2025
Procurement & Shortages of Essential Medicines	PLOS Glob Public Health, 2024
Availability & Affordability of EPCMs in Nepal	J Pain Symptom Manage, 2024
Pain, QoL & Pain Management in Cancer Patients	Quality of Life Research, 2024

Results: Palliative Care Landscape in Nepal

Palliative Care Centers by Type (n=8)



Key Findings

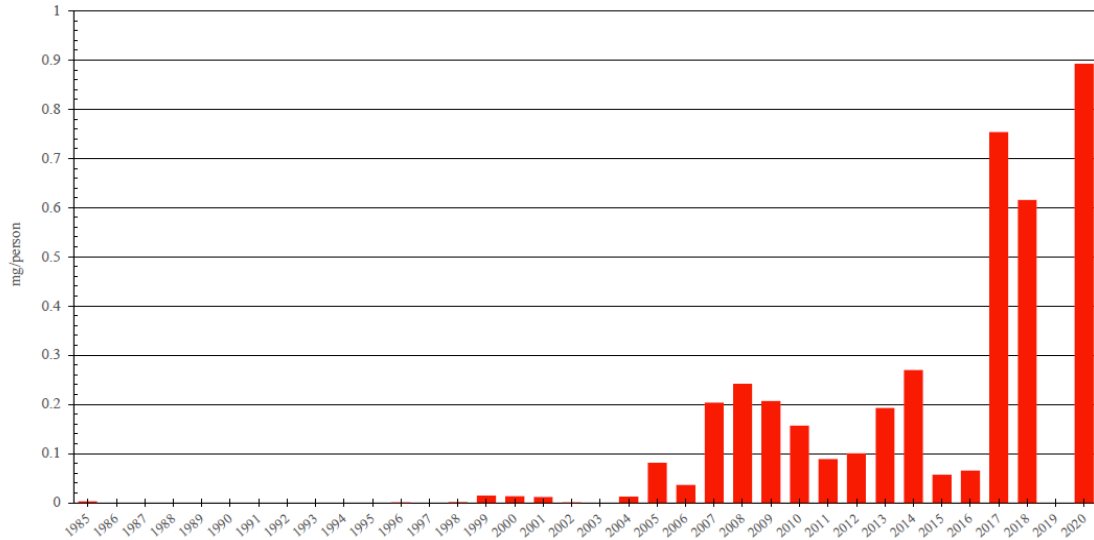
1. Only 8 hospice/palliative care centers in all of Nepal
2. All centers located in urban areas only
3. Only 2 out of 8 are government facilities
4. No palliative care services at rural level
5. 58,000 adults estimated to need PC (2012 data)
6. Increasing need due to rising NCDs and aging population

Results: Opioid Availability in Nepal

Opioid	Formulations	Source	Key Issue
Morphine	IR Tab, PR Tab, Syrup, Injection	1 domestic manufacturer	Raw materials from Europe
Fentanyl TD	25, 50 mcg patches	Imported (Belgium)	2,582x daily wage / month
Codeine	15 mg Tab, Syrup	Multiple Nepali cos.	Adequate supply
Tramadol	50 mg Tab, Injection	Multiple manufacturers	Adequate supply
Methadone	Syrup	Special import only	NOT for pain/PC
Oxycodone	—	—	NOT available

Nepal's morphine consumption in 2020: 0.88 mg/person (Global average: 6.15 mg/person)

Morphine Consumption Trend

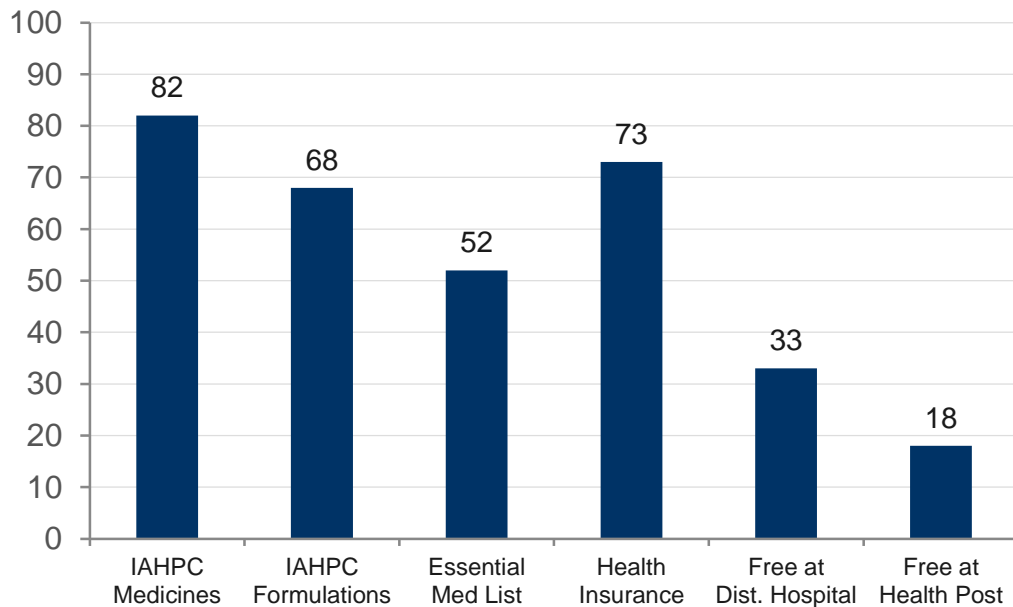


Regional Comparison (2020)

Country	mg/person
Global Average	6.15
Sri Lanka	0.90
Nepal	0.88
India	0.24
Bangladesh	0.11
Pakistan	<0.10

Figure 1: Morphine consumption (mg/person) in Nepal from 1985 to 2020

Essential Palliative Care Medicines



Key Findings

- Only 19 of 41 available EPCMs are affordable
- No opioids on free medicine lists
- Fentanyl patch: 2,582x daily wage
- Morphine IR tab: 2.3x daily wage
- Health insurance covers 73%, but enrollment is low

Source: Shrestha et al., *J Pain Symptom Manage*, 2024

Procurement & Supply Chain Barriers

Qualitative evidence from 59 interviews across Bagmati Province

Purchasing Delays

Procurement starts Q1, medicines reach facilities Q3. Health posts face consistent shortages.

Inventory Management

Health posts use manual registers. No e-LMIS training. Insufficient storage space. FEFO rule hard to follow.

Demand & Supply

Unrealistic demand estimation.
Inadequate transportation budgets.
Difficult terrain in hilly regions.

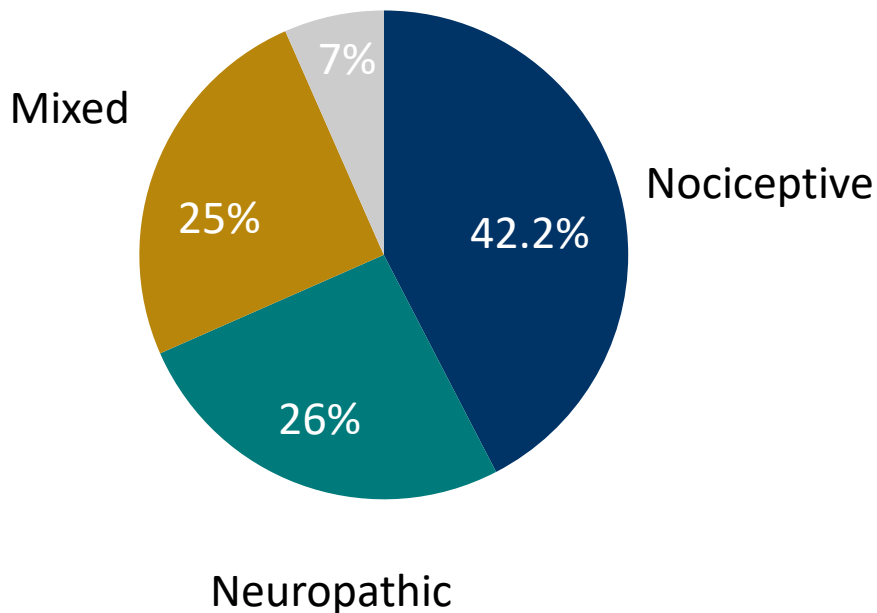
Medicine Shortages

Rural health posts face worst shortages. Patient flow drops 50-60 to 10-20/day. Patients forced to private clinics.

Results: Cancer Pain in Nepal



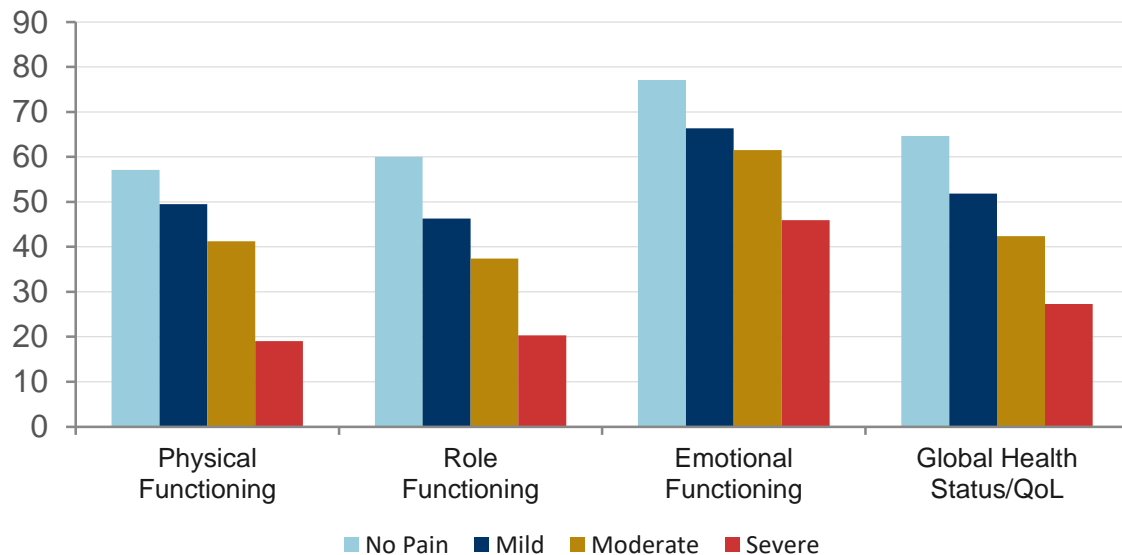
Pain Type Distribution



Pain Characteristics

Measure	Value
Mean NRS Pain Score	4.31 ± 2.69
Moderate Pain (NRS 5-6)	32.4%
Severe Pain (NRS 7-10)	21.1%
Pain Duration >3 months	55.6%
Inadequate Pain Mgmt (PMI<0)	43.7%
Medication Non-adherence	13.97%

Results: Pain Severity and Quality of Life



Key Insight

Severe pain was associated with a 37.36-point decline in Global Health Status/QoL ($p < 0.001$)

Factors driving higher pain:

- Mixed pain types
- Pain in multiple sites
- Lower KPS (10-40)
- Pancreatic, oesophageal, ovarian cancers

Barriers to Effective Pain Management



System-Level

- Single morphine manufacturer
- Raw material import dependency
- No opioids on free med lists
- Morphine not at primary care
- Methadone restricted to addiction



Workforce

- Inadequate PC training in curricula
- Reluctance to prescribe opioids
- Fear of adverse effects/addiction
- No multidisciplinary teams
- Limited pharmacist integration



Patient-Level

- Concerns about harmful effects
- Communication barriers with doctors
- Fear of addiction to pain medicines
- 13.97% medication non-adherence
- Financial hardship from OOP costs

Results: The Urban–Rural Divide

Access inequity is the defining challenge

URBAN

- ✓ All 8 PC centers located here
- ✓ Access to hospital pharmacies
- ✓ Morphine available at cancer centers
- ✓ Health insurance services operational
- ✓ Transportation not a barrier

RURAL

- X Zero palliative care services
- X No morphine at health posts
- X Only 10% of EPCM formulations free
- X Manual inventory, no IT resources
- X Terrain and floods block supply chains

Results: Lessons from International Models

Australia

Core medicines list for terminal phase; reliable supply chain; caregiver support protocols

Canada

National framework & action plan; technology for remote access; advanced care planning

England

Nurse and pharmacist prescribers; electronic prescribing; community pharmacy stock management

India

Community-based model; economic self-sufficiency through micro-donations; active volunteering

These models can be adapted to Nepal's context, particularly Kerala's community-based approach for resource-limited rural settings.

Policy Recommendations

01

Strengthen Supply

Diversify morphine manufacturers. Integrate PC medicines into national supply chains.

02

Balance Regulation

Extend methadone license for pain. Develop opioid stewardship guidelines.

03

Train the Workforce

Integrate PC into medical/pharmacy curricula. Pain management CPD programs.

04

Rural Integration

Make morphine available at district hospitals. Equip health posts with basic PC medicines.

05

Expand Pharmacist Role

Clinical pharmacists in oncology teams. Pharmacist-led pain assessments.

06

National PC Formulary

Develop Nepal-specific formulary. Align EPCM lists with realistic availability.

Key Messages



Access to essential medicines is a health system issue, not just a supply issue. It requires addressing availability, affordability, accessibility, and appropriate use simultaneously.



Nepal has made progress (morphine manufacturing since 2009, National PC Strategy 2017) but implementation lags significantly behind policy commitments.



Pain is undertreated: 43.7% of cancer patients receive inadequate pain management, with severe pain reducing quality of life.



Rural populations bear the greatest burden. Zero palliative care services at the rural level, where the majority of Nepal's population lives.



Evidence exists from multiple studies. The gap is in translation to practice

Acknowledgment

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- INF Nepal Green Pastures Hospital and Rehabilitation Centre, Pokhara, Nepal
- School of Pharmacy, Monash University
- University of Queensland, Brisbane, Australia
- University of Birmingham & King's College London, UK

All study participants, healthcare professionals, and research assistants.

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Questions & Discussion