

Cultural Adaptation, Social Integration, and Health Outcomes among Immigrant Communities in Kullu District, Himachal Pradesh

Sandeep Bodh

School of Social Sciences, Indira Gandhi National Open University

Abstract: This paper examines links between cultural adaptation, social integration, and health outcomes among immigrant and seasonal migrant populations in Kullu district, Himachal Pradesh, using secondary, district-level data. Using Census 2011 (District Census Handbook), NFHS-derived District Nutrition Profile (IFPRI/NITI), NHM facility listings and published studies on migration and tourism in the Kullu valley, we describe demographic composition, migration-related features, health infrastructure, and major health/nutrition burdens. Key findings: Kullu (pop. 437,903 in 2011) remains predominantly rural (~90.6%), with notable seasonal/urban male in-migrant presence in towns (reflected in urban sex ratios and labour patterns); child undernutrition and anemia burdens remain substantial (IFPRI headcount estimates: stunted ~11,855; anemic children ~22,337), while adult women show a double burden of underweight and overweight/obesity. We discuss how limited social integration of migrants (seasonality, language/cultural differences, employment in tourism) may shape access to services and health outcomes, and propose targeted recommendations for inclusive public health action.

Keywords: Migration, cultural adaptation, social integration, demography, community health centres.

1. INTRODUCTION

Hill districts such as Kullu in Himachal Pradesh face distinct demographic and environmental dynamics: predominantly rural settlements, intense seasonal tourism, and rising short-term migration driven by the hospitality, construction, and transport sectors. These forces converge to exert pressure on housing, sanitation, nutrition, and access to health services—crucial determinants of health for both migrant and host populations. According to the 2011 Census, Kullu district had a population of 437,903, with a low population density of 79 persons per square kilometre, an urbanization rate of only 9.45 percent, a literacy level of 80.14 percent, and a sex ratio of 942 females per 1,000 males. Such demographics underscore the challenge of delivering equitable health and social services across dispersed rural communities. Kullu's development context is shaped significantly by tourism. For Himachal Pradesh overall, foreign tourist visits dropped precipitously—from pre-COVID highs (e.g., roughly 382,876 in 2019) to just 29,333 in 2022—though partial recovery occurred by 2023 (62,806 visits). This volatility in tourist flows creates cycles of economic influx followed by strain on local infrastructure, including health and sanitation systems. Migration has been a significant demographic phenomenon shaping the cultural and social fabric of Himachal Pradesh. Among the notable cases are the Lahauli communities, who have historically migrated to adjoining regions such as Kullu due to both seasonal and socio-economic factors. Scholars have documented that the harsh winter climate of Lahaul, characterized by prolonged snowfall and restricted mobility, compelled many families to temporarily relocate to the milder valleys of Kullu for sustenance and livelihood opportunities (Sharma, 2016). Seasonal migration was also linked with the search for arable land and access to trade routes, as Kullu offered better agricultural conditions and connections with the broader Himachali

economy (Kapila, 2008). In addition, socio-cultural exchanges between Lahauli migrants and the host Kullu population have influenced patterns of adaptation, integration, and identity (Chopra, 2012). Recent studies highlight that such mobility continues in modified forms, driven by tourism, education, and labor demands in the Kullu valley (Negi & Joshi, 2020).

Nutrition and welfare indicators further highlight health vulnerabilities. Himachal Pradesh reported a moderate underweight children rate and near-universal coverage of iodized salt at the state level. More granularly, district nutrition profiles such as those developed by the International Food Policy Research Institute (IFPRI) specifically include data on Kullu (Singh et al., 2022), though these profiles should be supplemented with localized data from Kullu’s District Census Handbook (DCHB) and NFHS-derived reports. Hypertension among adults in Kullu—based on NFHS-4 (2015-16). Many researches indicates that 9.8 percent exhibited mildly above-normal blood pressure, with 2.5 percent moderately high, and 0.9–1.0 percent in severe ranges. Such figures reflect emerging non-communicable disease burdens even in hill settings. Additionally, at the state level (Himachal Pradesh), the NFHS-5 (2019-20) reports that 53.7 percent of children aged 6–59 months were anaemic, and approximately 53.5 percent of women (15–49 years) were anaemic, indicating significant malnutrition and micronutrient deficiencies. Understanding the intersection of migration, social integration, and health outcomes in Kullu demands synthesizing these authoritative secondary sources—Census DCHB, NFHS district-level data, NHM facility maps—and the IFPRI district nutrition profile. It also requires integrating literature on seasonal tourism and short-term labor migration to illustrate how these social dynamics shape health determinants.

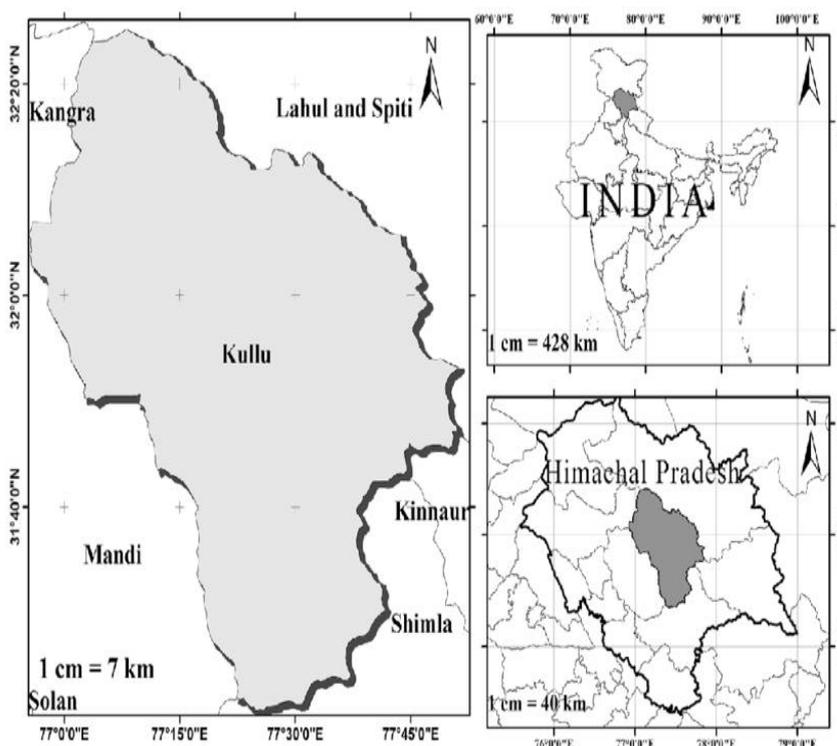


Figure 1 Map of Kullu (Himachal Pradesh)

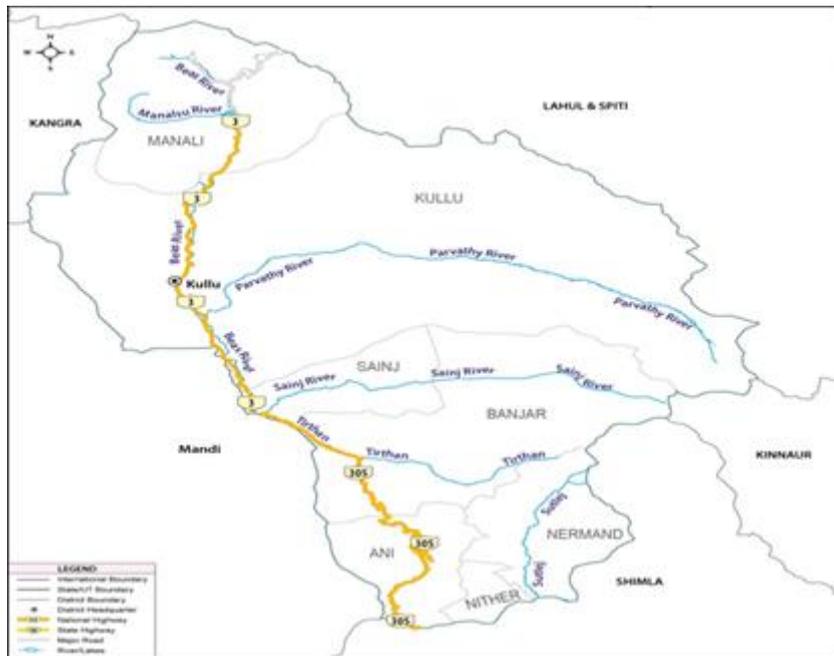


Figure 2 Line Map of Kullu (Himachal Pradesh)

2. LITERATURE REVIEW

- Adsul et al. (2011) carried out a clinic-based study along with an outreach program to assess health issues among migrant construction workers in India, while also presenting a public–private model for providing on-site healthcare. The study revealed a high occurrence of musculoskeletal pain, respiratory ailments, skin problems, and work-related injuries, coupled with poor access to preventive services. It showed that mobile and outreach health models significantly improved service use. In the context of Kullu’s growing construction sector driven by tourism and infrastructure projects, the study highlights the importance of on-site health screening, better occupational safety, and stronger links with NHM facilities.
- Dodd et al. (2017) studied migrant households in South India a mixed-methods research (26 villages, Tamil Nadu; 300 household surveys + 66 interviews) testing whether migrants have better health (“healthy migrant effect”) and identifying determinants shaping outcomes (work hours, housing, food security, access to care, social networks). They found that migration does not automatically improve or worsen health; outcomes depend on work conditions, housing, and access to services. Many migrants faced health problems due to long hours and heavy labor, though social networks offered some protection. The study stresses the need for targeted support in workplaces, housing, and healthcare—lessons that resonate with Kullu’s tourism and construction-linked migration.
- Kusuma and Babu (2018) reviewed 42 studies on internal migrants in India, highlighting their health challenges and barriers to care. They found that poor and short-term migrants often suffer a double burden—occupational injuries from sectors like construction alongside chronic and infectious diseases—made worse by weak access to primary healthcare and documentation issues. The authors stress the need for migrant-sensitive health systems and social protection, which is particularly relevant to Kullu’s tourism- and construction-driven migration.
- Awasthi (2020) found that migration from Uttarakhand’s hill districts is largely male-driven, driven by limited livelihood, education, and health opportunities. Return migration often occurs during crises such as disasters or pandemics. The study emphasizes that improving local services and jobs is essential to reduce distress migration and support reintegration—a lesson equally relevant for regions like Kullu and Lahaul.
- Sharma (2023) conducted an ethnographic study on Swangla (Lahuli) migrants from Pattan Valley who live and work in Kullu, exploring how they navigate identity, caste, and everyday life in a

rapidly urbanizing hill town. The study found that while these migrants preserve strong cultural ties, their integration is shaped by caste hierarchies, insecure housing, seasonal employment in tourism and hospitality, and social networks that help them access services. Rather than being a straightforward process, integration emerges as negotiated and complex, highlighting the need for inclusive urban planning and migrant-sensitive policies in hill districts.

Tourism-led growth in Kullu-Manali has transformed local labour markets and drawn seasonal/international migrant labour (e.g., hospitality, driving, construction), with documented socio-economic and environmental impacts.

Studies of internal and cross-border migration in the Himalayan belt report increased labour mobility, seasonal returns, and uneven access to health services among migrants. Evidence from neighboring contexts (e.g., seasonal Nepali migrants) indicates barriers to healthcare access, especially for returnee/temporary migrants.

District-level NFHS analyses and IFPRI district nutrition profiles show that nutrition and anemia burdens remain a public-health priority even where facility coverage is reasonable — signaling that social determinants (food security, women’s status, sanitation, health-seeking) mediate outcomes.

3. Data & Methods

3.1 Data sources (secondary Data)

1. Census of India 2011 — District Census Handbook (Kullu): demographic structure, urban/rural split, literacy, sex ratio, village/town directories (amenities).
2. District Nutrition Profile — Kullu (IFPRI / NITI, 2022): NFHS-4 and NFHS-5 based district estimates and IFPRI headcounts for child and women nutrition and NCD markers (2016 vs ~2019). These are projected headcounts that combine NFHS prevalences with population projections.
3. NHM District-wise health centres list (Govt. of India): counts of Sub-centres, PHCs, CHCs (snapshot as of 2011 listing).
4. Kullu District official website (context on administration and health governance).
5. Peer-reviewed and policy literature on migration and tourism impacts in Kullu/Himachal Pradesh for interpretation.

3.2 Operational definitions

- Migration / immigrant population: At district-level, explicit counts of recent migrants by place of last residence are available in Census D-tables; however, our analysis uses qualitative and contextual indicators (urban sex ratio distortions, tourism-driven labour demand, and literature on seasonal migration) because district-level microdata on migrants’ health are not publicly accessible here. “Migrant” follows the Census definition (place of last residence different from place of enumeration).
- Health outcomes: child stunting, wasting, underweight, anemia counts (IFPRI headcounts), women’s nutritional status and NCD markers (IFPRI headcounts). These are district-level aggregate estimates (NFHS-derived).
- Social integration proxies (qualitative): length of stay patterns (seasonal vs permanent), language/household composition, sex ratio anomalies in towns (urban male inflow), access to local health/social services. DCHB urban sex-ratio notes point to a male-worker influx in towns — used as an integration proxy.

3.3 Analysis approach

Descriptive synthesis of district aggregates and visualization of key counts (child and maternal/women indicators). Where possible, percentages are computed from documented headcounts to help relative

interpretation (e.g., percent stunted among children <5). No individual-level causal inference is attempted because microdata are not used.

Table 1: Demographics (Census 2011)

Indicator	Value
Total population (Census 2011)	437903.0
Rural population (Census 2011)	396512.0
Urban population (Census 2011)	41391.0
Percent urban (Census 2011)	9.45
Sex ratio (Females per 1000 males, 2011)	951.0
Literacy rate (2011)	78.47
Children 0-6 (Census 2011)	46400.0
Children <5 (NFHS-based projection, 2019)	33022.0
Women 15-49 (NFHS-based projection, 2019)	131950.0

Table 2: Child Nutrition (IFPRI District Nutrition Profile)

Indicator	Count	Percent of total children
Stunted (<5)	11855	35.9
Wasted (<5)	5317	16.1
Severely wasted (<5)	1915	5.8
Underweight (<5)	8454	25.6
Overweight/obesity (<5)	3702	11.2
Anemic (<5)	22337	67.6
Total children (<5)	33022	100.0

Table 3: Women Health Indicators (IFPRI District Nutrition Profile)

Indicator	Count	Percent of total women
Underweight women (15-49)	14515	11.0
Overweight/obesity women (15-49)	39295	29.8
Hypertension (women 15-49)	22986	17.4
Diabetes (women 15-49)	12351	9.4
Anemia (non-pregnant women 15-49)	70857	53.7
Total women (15-49)	131950	100.0

Table 4: Health Infrastructure (NHM)

Facility	Count
Sub-centres	100
Primary Health Centres (PHC)	17
Community Health Centres (CHC)	6
District Hospital	1

4. Results

4.1 Demographic & administrative snapshot (Census 2011)

Total population (2011): 437,903

Rural / urban split: Rural = 396,512; Urban = 41,391 ($\approx 9.45\%$ urban). The district is overwhelmingly rural in 2011.

Sex ratio (district, 2011): 951 females per 1,000 males (but urban sex ratio is lower — urban sex ratio ≈ 866 — indicative of male-dominated urban in-migration). The DCHB explicitly notes that low urban sex ratios are possibly due to an influx of male workers who do not bring families.

Literacy (2011): District literacy rate $\approx 78.5\%$ (rural/urban differentials exist).

4.2 Health & nutrition burdens (NFHS-based IFPRI DNP estimates)

(Headcount estimates combine NFHS prevalence with district population projections) Key headcounts (2019 projection basis):

Children (<5 total): 33,022 (IFPRI projection).

- Stunted: 11,855 ($\approx 35.9\%$ of children <5).
- Wasted: 5,317 ($\approx 16.1\%$).
- Severely wasted: 1,915 ($\approx 5.8\%$).
- Underweight: 8,454 ($\approx 25.6\%$).
- Overweight/obesity: 3,702 ($\approx 11.2\%$).
- Anemic children: 22,337 ($\approx 67.7\%$).

(counts and computed percentages from IFPRI DNP headcounts and total children <5.)

Women (15–49 total): 131,950 (IFPRI projection).

- Underweight women: 14,515 ($\approx 11.0\%$).
- Overweight/obesity: 39,295 ($\approx 29.8\%$).
- Hypertension (women): 22,986 ($\approx 17.4\%$).
- Diabetes (women): 12,351 ($\approx 9.4\%$).
- Anemia (non-pregnant women): 70,857 ($\approx 53.7\%$).

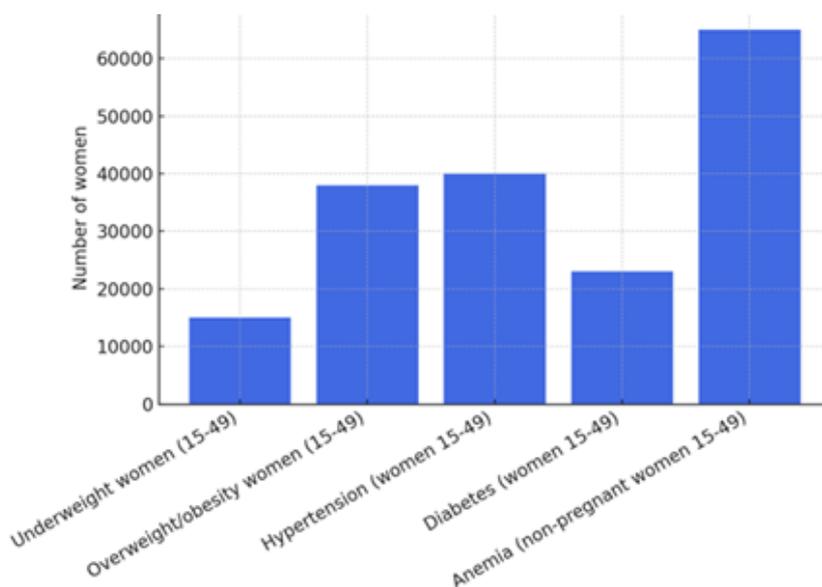


Figure 2 Key Women Health Indicators in Kullu District (Counts)

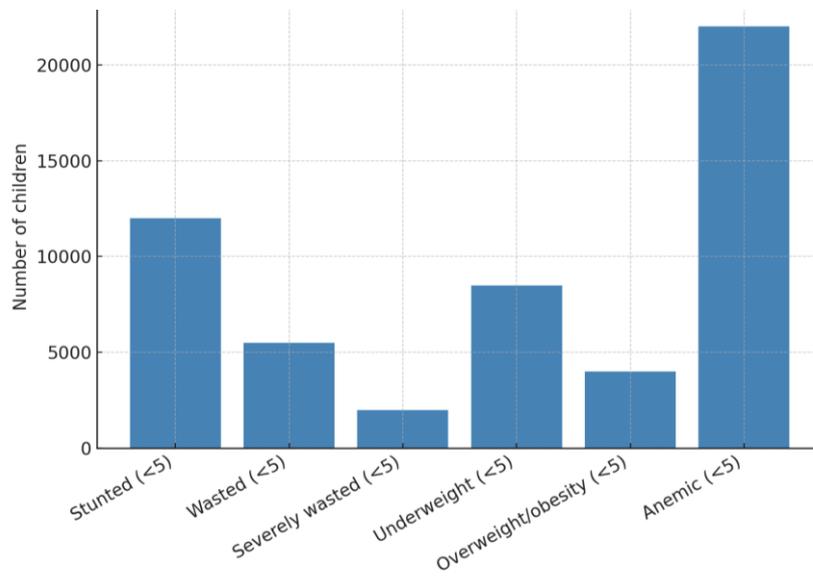


Figure 3 Child Nutrition Burden in Kullu District (Counts)

(Figures produced from these headcounts are shown above: Figure 3: Women health indicators (counts) and Figure 4: Child nutrition burden (counts) are generated from IFPRI DNP numbers)

4.3 Health infrastructure (NHM district listing)

NHM's district-wise availability (snapshot reference) lists ≈ 100 sub-centres, 17 PHCs, and 6 CHCs (as recorded in the collection used — table4. NHM table). There is at least one district hospital serving the district. These facility counts provide a base for physical access but do not capture staffing adequacy, service utilization by migrants, or temporal (seasonal) surges. (National Health Mission, District Kullu)

4.4 Migration / social integration signals

- Census commentary and DCHB urban sex ratio analysis point to male-dominated in-migration to towns (e.g., Manali—with low sex ratio—linked to service-sector male labour). This is a practical proxy for seasonal/temporary migration and lower family-level integration in urban centres.
- Tourism-driven labour demand (documented in regional studies) is a likely driver for short-term/seasonal migrants whose social integration (housing, permanent family relocation, language/social networks) varies — literature suggests barriers to healthcare continuity and exclusion from local social safety nets for some migrant groups.

5. Discussion

5.1 Interpreting the patterns

High child anemia & undernutrition vs. good maternal/child service indicators: IFPRI DNP shows substantial headcounts of childhood anemia and stunting despite relatively high institutional delivery and other service coverage in many sub-areas. This suggests distal social determinants (dietary diversity, women's workload, sanitation, poverty, and social exclusion) strongly shape nutrition outcomes.

Migration and service access: The male-skewed urban sex ratios and tourism-driven labor demand suggest an important population of male seasonal workers in urban/tourist towns who may have limited social integration and weaker access to entitlements (e.g., local health insurance, stable residence). Such patterns can create invisible pockets of vulnerability and complicate service planning (seasonal pressure on district hospitals and PHCs; language/cultural barriers; limited uptake of nutrition programs).

Double burden among women (underweight & overweight): Coexistence of underweight and high overweight/obesity prevalence among women indicates nutrition transition and heterogeneity across socio-economic and geographic subgroups, which must be considered in program design.

5.2 Policy implications & recommendations

Migrant-inclusive health outreach: Use town-level community health workers and urban health missions to register short-term workers, provide information in multiple languages, and schedule outreach (e.g., anemia screening) timed to tourist seasons. (Leverage Kullu's CHCs/PHCs as coordination points.)

Nutrition & food-access programs addressing both residents and migrant workers: Strengthen targeted IYCF counseling, iron/folate distribution, and midday/auxiliary feeding programs that can reach children of migrant households and nutritionally vulnerable adults.

Data improvements: District health and development monitoring should collect routine data on temporary/seasonal migrants (e.g., place of origin, duration of stay) to better plan seasonal staffing and outreach. Census and NFHS provide critical snapshots — local HMIS must add migration markers.

Cross-sectoral coordination: Tourism departments, employers (hotels, transport unions), and local governance should be engaged to support housing standards for migrant workers, access to sanitation and potable water, and health insurance enrollment drives.

6. Limitations

This analysis uses district-aggregate secondary sources (Census DCHB 2011, IFPRI/NITI DNP based on NFHS-4/5, NHM facility lists). No individual-level microdata (e.g., NFHS unit files linked with migration variables) were analysed, so causal relationships cannot be established. Estimates (IFPRI headcounts) are projections rather than direct enumerations. Some source snapshots (e.g., NHM facility list) are dated and may not reflect the most recent facility expansions or staff changes.

7. Conclusion

Kullu district presents a mixed picture: strong institutional infrastructure in some respects but persistent nutrition and anemia burdens and an evolving migration profile associated with the tourism economy. Male-dominated urban in-migration, seasonality, and partial social integration of migrants likely shape differential access to health and nutrition services and contribute to pockets of poor health outcomes. Addressing these requires migrant-sensitive public-health planning, improved local data on migrant households, and cross-sectoral partnerships with tourism and employers.

References

1. Adsul, B. B., Laad, P. S., Howal, P. V., & Chaturvedi, R. M. (2011). Health problems among migrant construction workers. *Indian Journal of Occupational and Environmental Medicine*, 15(3), 144–146. <https://doi.org/10.4103/0019-5278.93203>
2. Awasthi, I. C. (2020). Forced out-migration from hill regions and return migration: Evidence from Uttarakhand. *Indian Journal of Labour Economics*, 63(4), 1001–1021. <https://doi.org/10.1007/s41027-020-0029>
3. Butola, J. S., Vashistha, R. K., Malik, A. R., & Samant, S. S. (2010). Accelerated tourism development and its impacts in Kullu-Manali, Himachal Pradesh, India. *ResearchGate / regional studies (discussion of tourism impacts and labour migration)*.
4. Census of India. (2011). *District Census Handbook: Kullu (Village and Town Directory / Primary Census Abstract)*. Directorate of Census Operations, Himachal Pradesh, Office of the Registrar General & Census Commissioner, India. Retrieved from *Census of India District Census Handbook (Kullu)*.
5. Chopra, P. (2012). Culture, migration and identity in the Western Himalayas. *Economic and Political Weekly*, 47(6), 55–62.

6. Data compiled by researchers from NFHS-4 (2015–16) on hypertension prevalence among adults in Kullu. Nutritional Status of Adults in Himachal Pradesh
7. District Kullu (Official). (n.d.). District Kullu — Health / District at a glance. Kullu District Administration — Government of Himachal Pradesh. Retrieved from hpkullu.nic.in.
8. Dodd, W., Humphries, S., Patel, K., Majowicz, S., Little, M., Dewey, C., & Cole, D. C. (2017). Determinants of internal migrant health and the healthy migrant effect in South India: A mixed-methods study. *BMC International Health and Human Rights*, 17, 23. <https://doi.org/10.1186/s12914-017-0132-4>
9. International Food Policy Research Institute (IFPRI). (2022). District Nutrition Profile: Kullu, Himachal Pradesh (based on NFHS-4 & NFHS-5). NITI Aayog/IFPRI. Retrieved from NITI/IFPRI district nutrition profiles (Kullu).
10. International Institute for Population Sciences (IIPS) & ICF. (2021). National Family Health Survey (NFHS-5), 2019–21: India (Vol. II — methods & survey design).
11. Kapila, K. (2008). Conjugations: Marriage and Formations of Knowledge in Rural Himachal Pradesh. *Contributions to Indian Sociology*, 42(3), 439–467. <https://doi.org/10.1177/006996670804200304>
12. Kusuma, Y. S., & Babu, B. V. (2018). Migration and health: A systematic review on health and health care of internal migrants in India. *The International Journal of Health Planning and Management*, 33(4), 775–793. <https://doi.org/10.1002/hpm.2570>
13. Mathias, K., Mathias, J. M. P., & Hill, P. C. (2011). Asset-focussed health needs assessment — Kullu district case (example of community health work in remote Kullu areas).
14. National Family Health Survey (NFHS-5), State Fact Sheet: Himachal Pradesh (2019–20). Retrieved from State Food Commission (2019).
15. National Health Mission (NHM). (2011). District-wise availability of health centres in India (as of March 2011). Ministry of Health & Family Welfare, Government of India.
16. Negi, R., & Joshi, V. (2020). Migration, livelihood and social change in Himachal Pradesh. *Journal of Mountain Research*, 15(1), 45–59.
17. NFHS-5 child nutrition ranking for Himachal Pradesh (underweight prevalence and iodized salt coverage).
18. Reddit data on foreign tourist visits to Himachal Pradesh showing decline and partial recovery post-COVID-19.
19. Registrar General & Census Commissioner, India. (2011). District Census Handbook: Kullu. Census of India.
20. Sharma, Y. (2016). What kind of urban? A case study of Kullu, a small Indian town. *Journal of Infrastructure Development*, 8(2), 89–108. <https://doi.org/10.1177/0974930616678738>
21. Sharma, Y. (2023). Experiencing Kullu as a Swangla Migrant. *Nidān: International Journal for Indian Studies*, 8(1), 115–134.
22. Singh, N., Nguyen, P. H., Jangid, M., Singh, S. K., Sarwal, R., Bhatia, N., Johnston, R., Joe, W., & Menon, P. (2022). Himachal Pradesh nutrition profile: Kullu [District nutrition profile]. International Food Policy Research Institute.