

USAID/Nepal

HEALTH/FAMILY PLANNING PROGRAM

**Office of Health and Family Planning
USAID Mission
Kathmandu
Nepal**

Updated September 1999

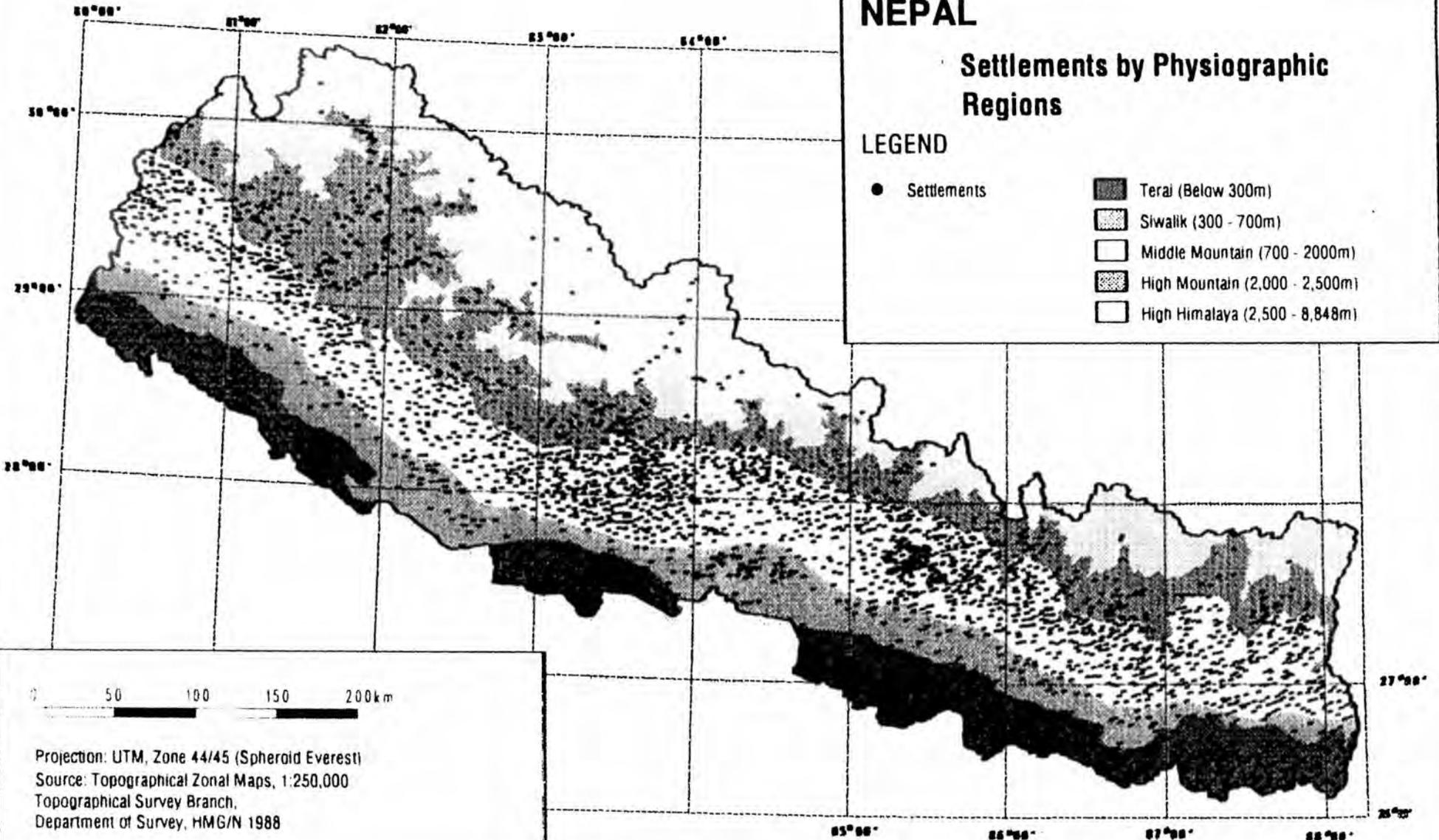
13294

NEPAL

Settlements by Physiographic Regions

LEGEND

- Settlements
- Terai (Below 300m)
- ▨ Siwalk (300 - 700m)
- Middle Mountain (700 - 2000m)
- ▨ High Mountain (2,000 - 2,500m)
- High Himalaya (2,500 - 8,848m)



0 50 100 150 200 km

Projection: UTM, Zone 44/45 (Spheroid Everest)
 Source: Topographical Zonal Maps, 1:250,000
 Topographical Survey Branch,
 Department of Survey, HMG/N 1988

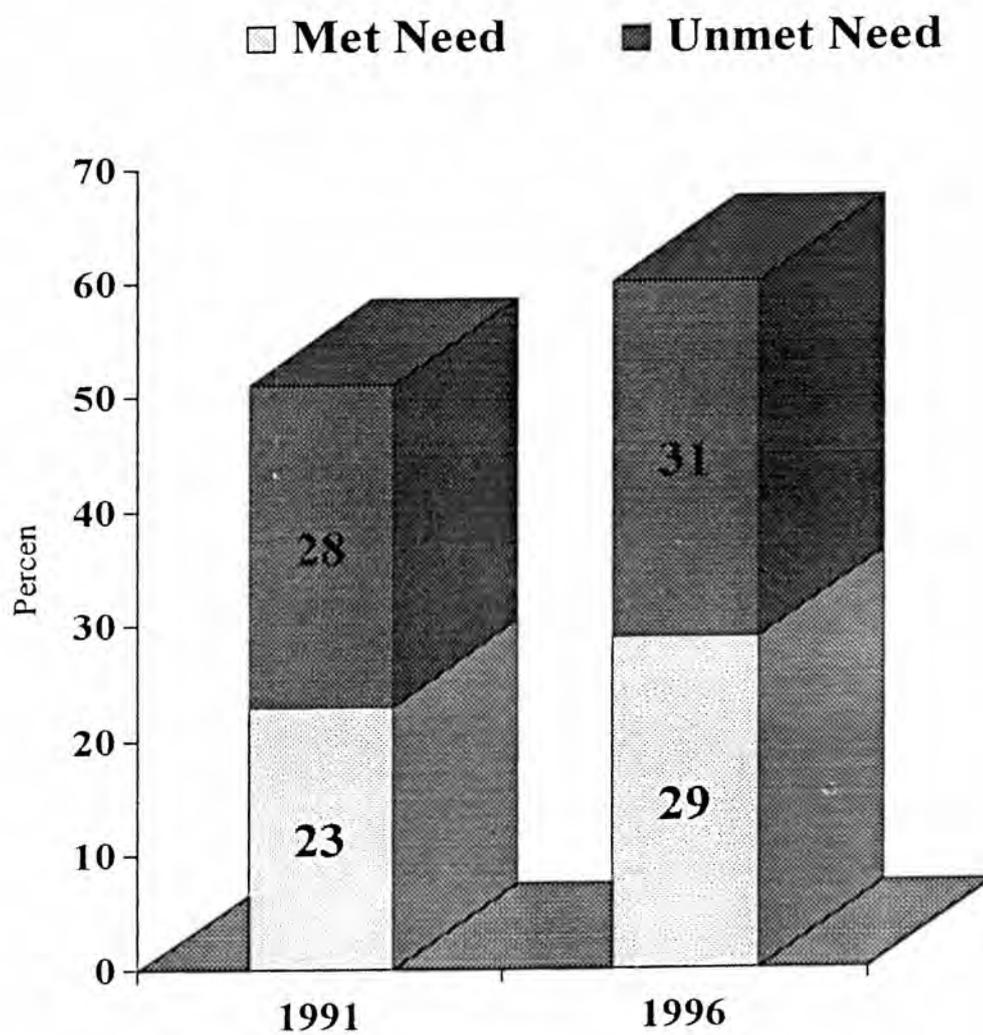
REP
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NEPAL

Population and Health Indicators

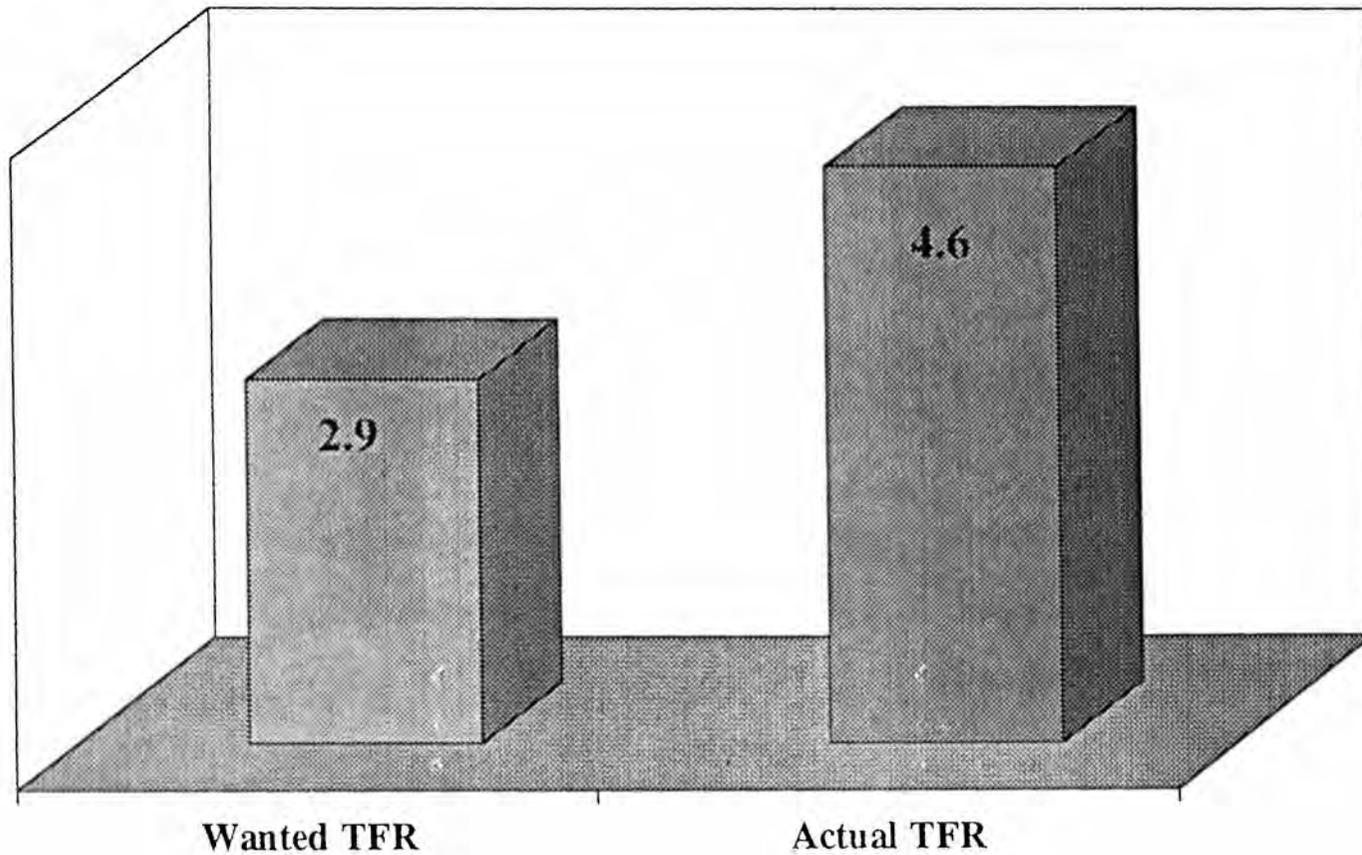
Selected Indicators		Reference Period
Total population (millions)	22.4	1999
Total land area (sq. km.) (size of Iowa)	147,200	1991
Total land under cultivation (%)	20	1998
Population under 15 years (%)	43	1997
Population growth rate (% per year)	2.38	1998
Life-time fertility (TFR) (per woman)	4.6	1995-96
Percentage of women (15-49) using modern contraception	32.7	1999

Met and Unmet Need for Family Planning Services, Nepal 1991 & 1996



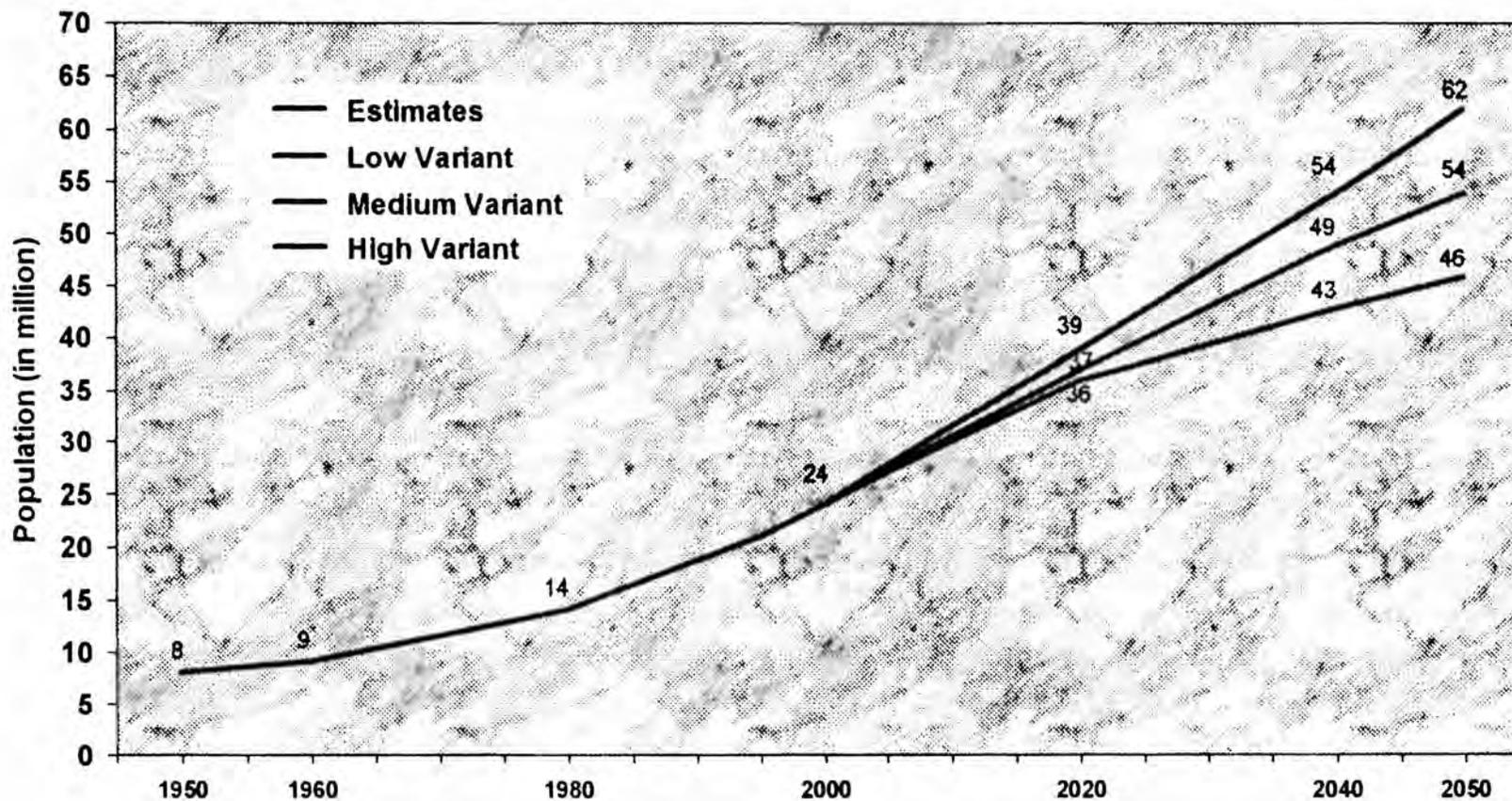
Wanted Fertility and Actual Fertility

(Rate per Woman) Nepal, 1996



Size of Nepal's Population

Estimates for 1950-1990 and Three Alternate Projections for 1995-2050

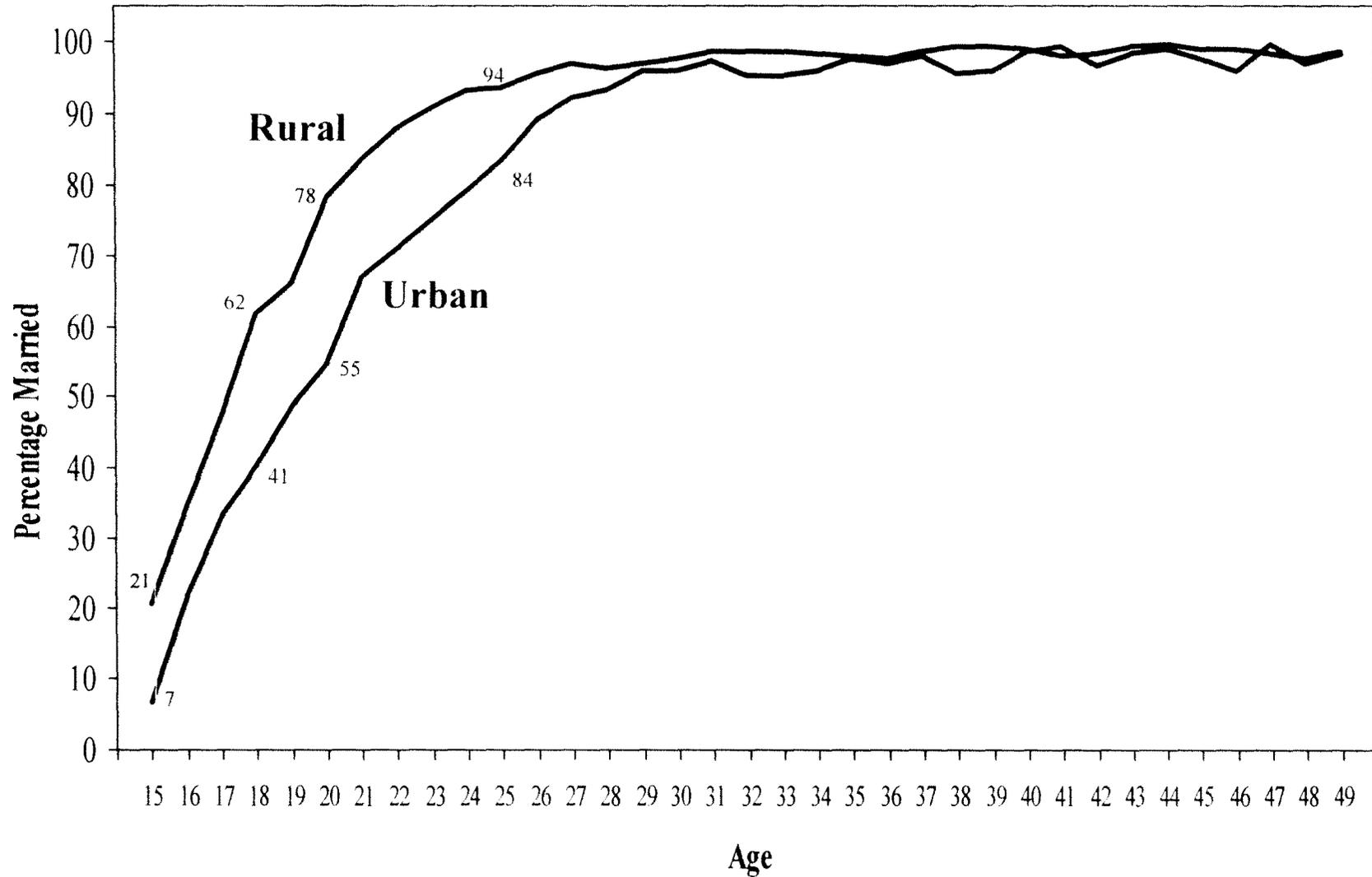


NEPAL

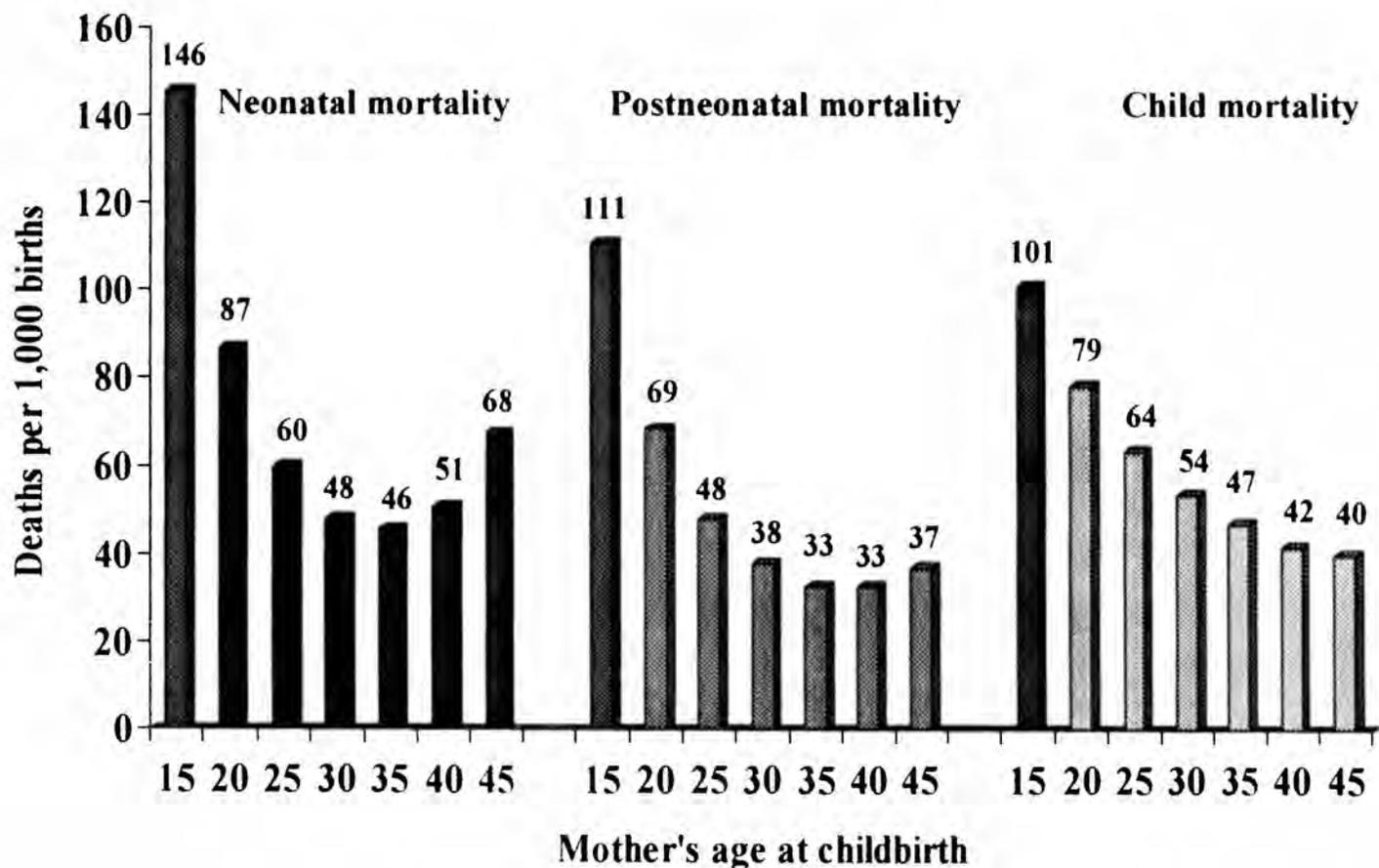
Population and Health Indicators

Selected Indicators		Reference Period
Percent literate (age 6+)		1996
Male	64	
Female	33	
Life expectancy (years)	54.4	1991
Nutritional status of children (under three years of age)		1996
Percent stunted	48	
Percent underweight	47	
Under-five mortality rate (per 1000)	90	1999
Maternal mortality ratio (per 100,000 live births)	539	1990-96
Age of women at first birth (median)	20	1996
Females married by age 17 (%)	47	1996

Percentage of Females Married Rural and Urban Nepal, 1996

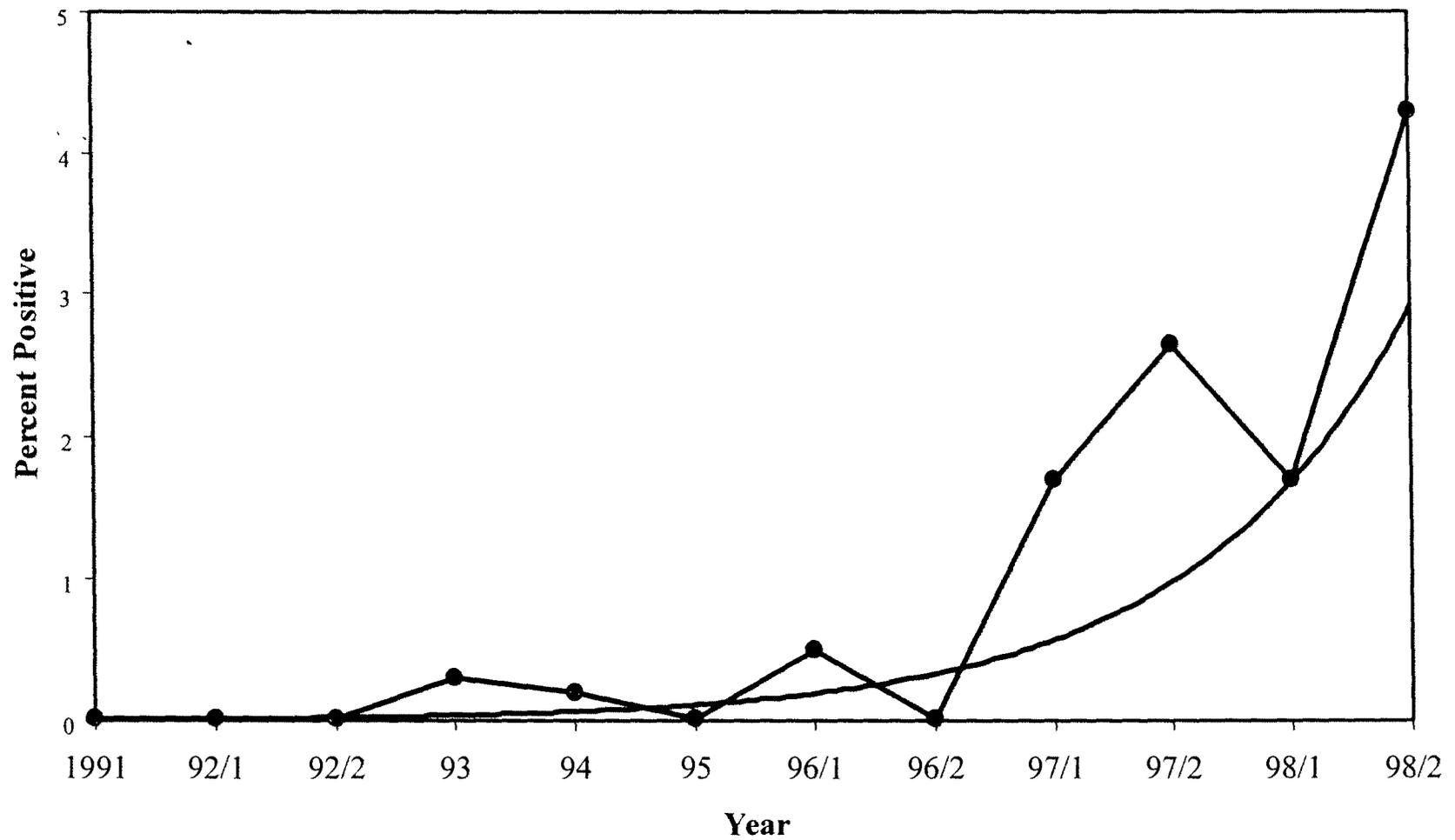


Neonatal, Postneonatal, and Child Mortality for All Children born to Ever-married Women (15-49) by Mother's Age at Childbirth, Nepal 1996



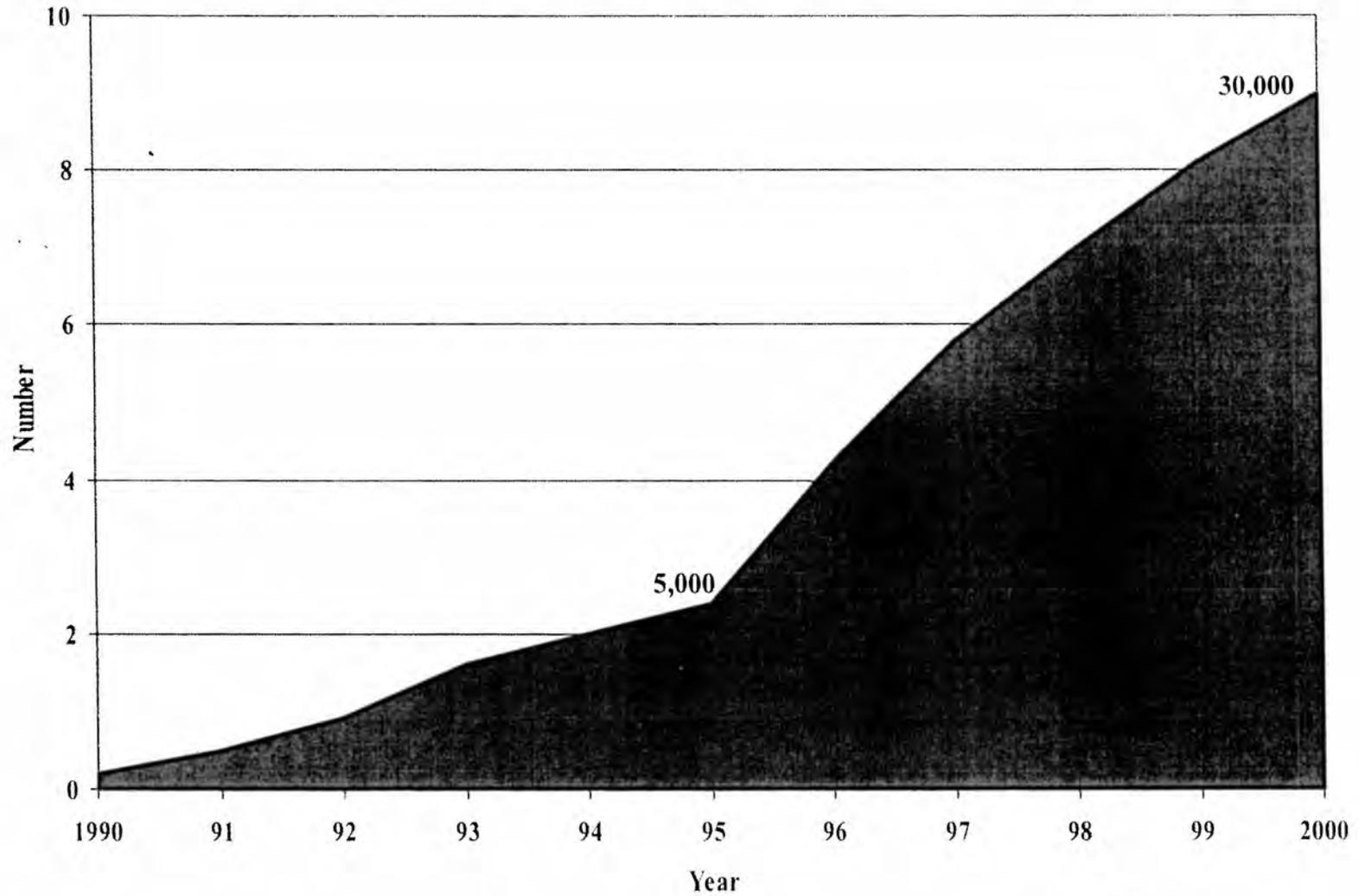
Note: The mortality rates are adjusted for 16 other predictor variables

HIV Prevalence in STD Patients, 1992-1998 Mahendra Nagar, Kanchanpur District, Nepal



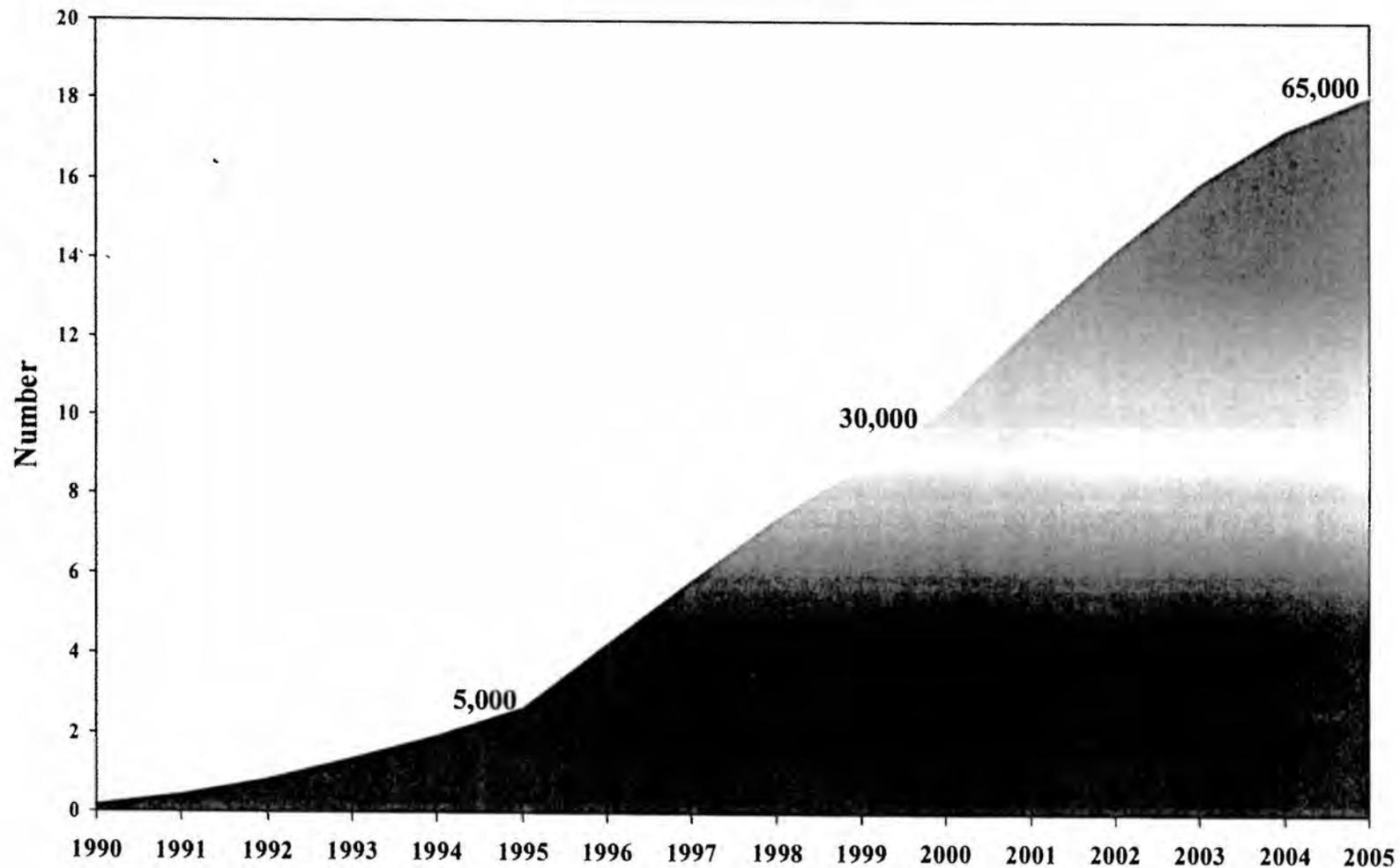
Source: NCASC University of Heidelberg STD/HIV Project.

Estimated Annual HIV Infection Cases in Nepal



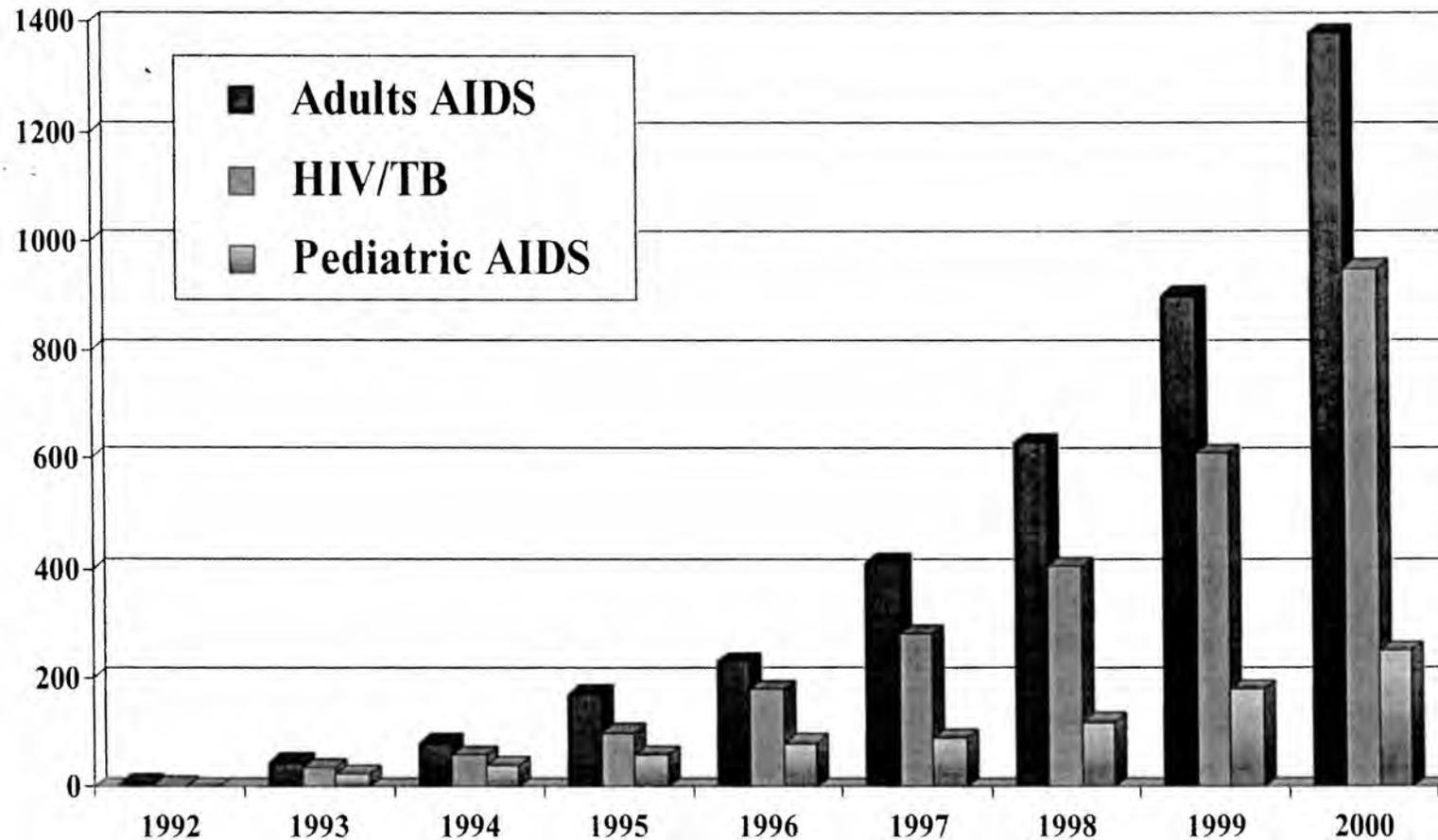
Note: It is assumed that up to half of the total number of infections are acquired in India.

Estimated Annual HIV Infection Cases, Nepal 1990-2005

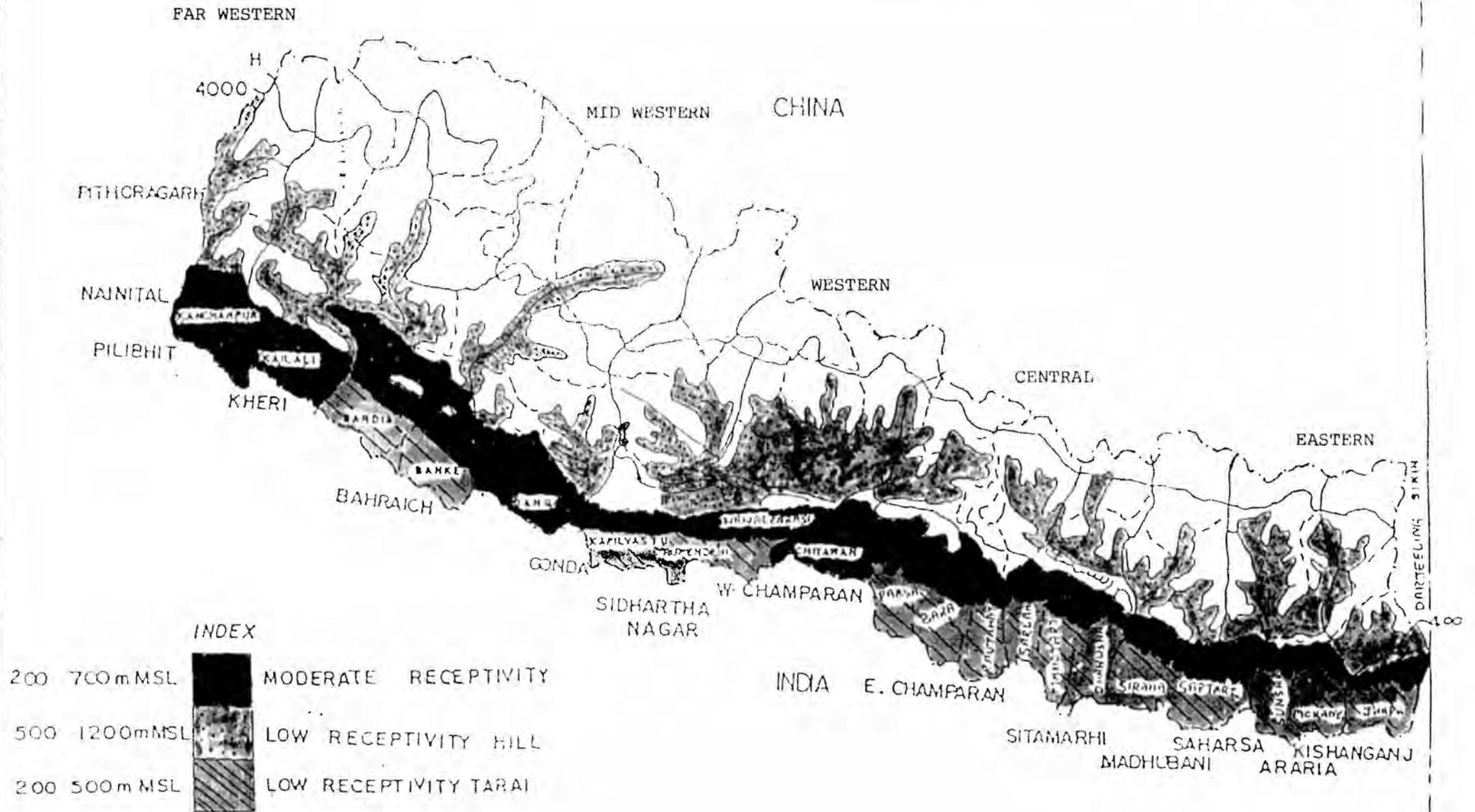


Note: It is assumed that up to half of the total number of infections are acquired in India.

Estimated Annual AIDS Cases in Nepal

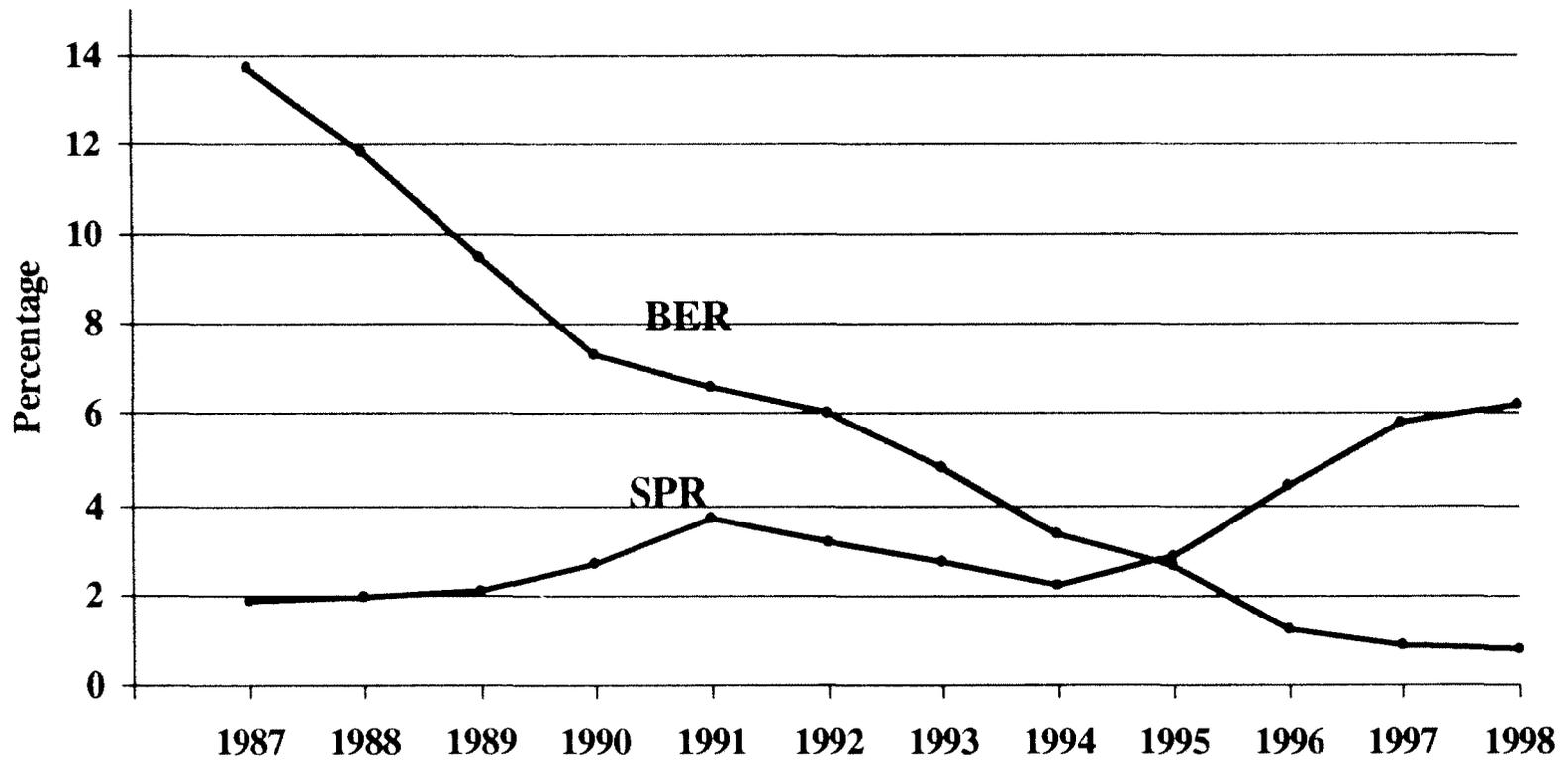


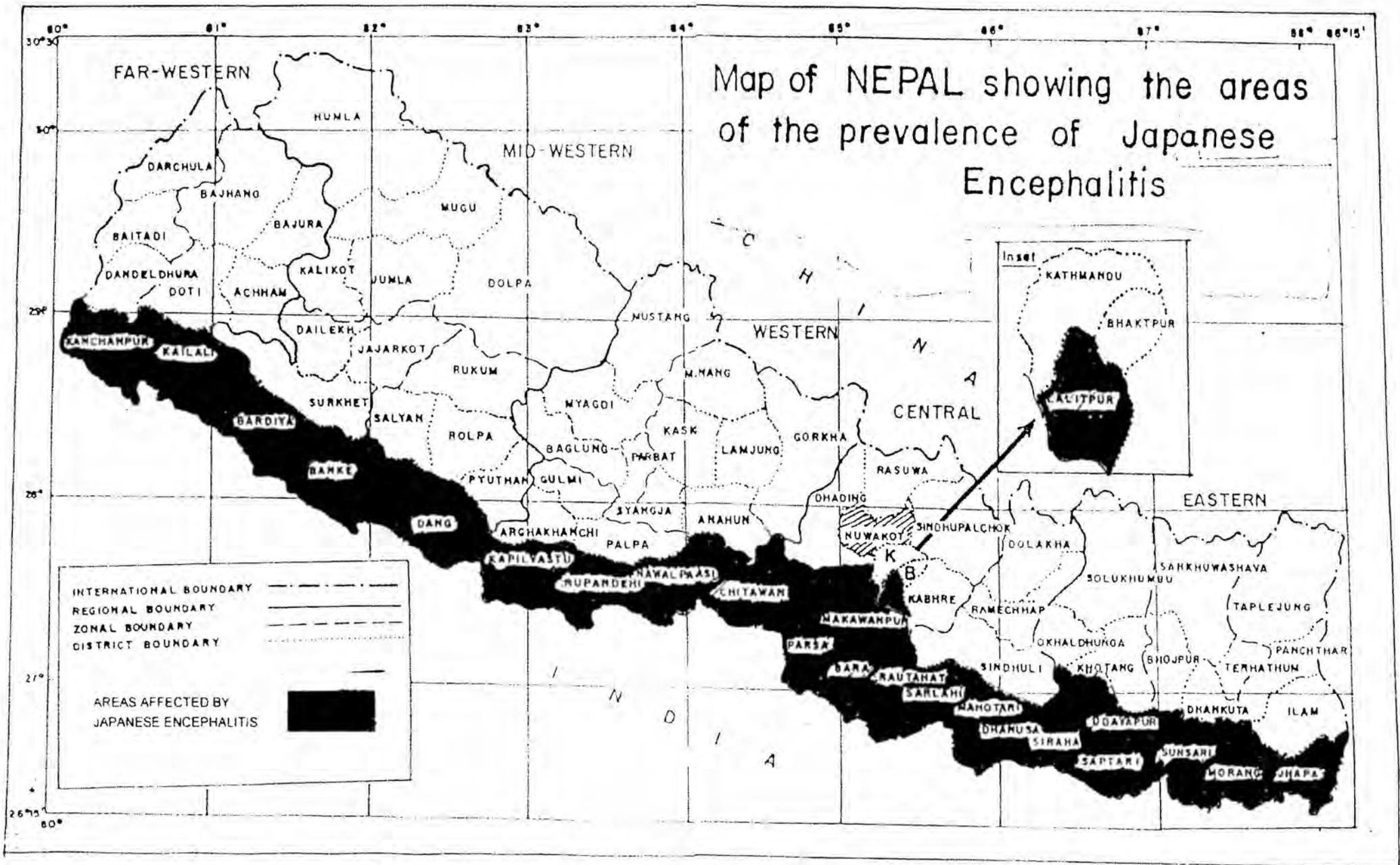
MAP OF NEPAL SHOWING THE AREAS OF MALARIA RECEPTIVITY



Malaria

Blood Examination Rate (BER) and Slide Positivity Rate (SPR), 1987-98





MAP OF NEPAL SHOWING THE AREAS AFFECTED BY KALA-AZAR

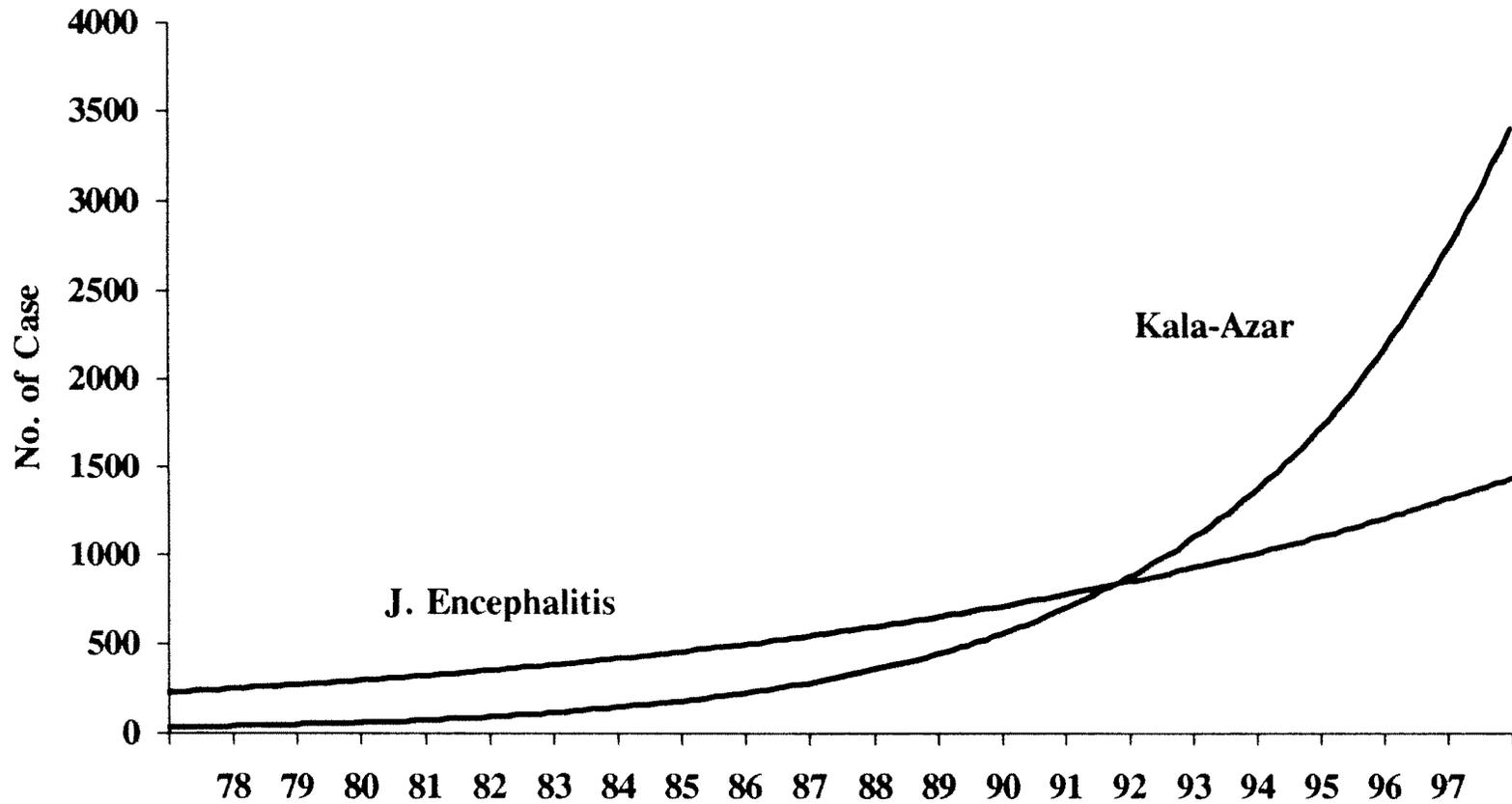


Areas affected by Kala-Azar

Prepared by: SPPraadhan, HFP/USAID/Nepal

National Boundary: ———
 District Boundary: - - - -
 Scale: 1" = 40 Miles

Trends in J. Encephalitis and Kala-Azar 1978-1997, Nepal



SO2

STRATEGIC OBJECTIVE

OBJECTIVE

*Reduced Fertility and Improved
Maternal and Child Health*

TARGETS

- **Reduction in the total fertility rate, from 4.6 in 1996 to 4.0 by 2002**
- **Reduction in the under-five mortality rate, from 118 deaths per 1,000 live births (NFHS 1996) to 85 deaths per 1,000 live births by 2002**
- **Increase in condom use by persons with high-risk behaviors in target areas (or a new indicator of reduced HIV/STI transmission)**

SO2

STRATEGIC OBJECTIVE AND IRs

OBJECTIVE

Reduced Fertility and Improved Maternal and Child Health

- **IR 2.1**
Increased use of quality family planning services
- **IR 2.2**
**Increased use of selected maternal
and child health services**
- **IR 2.3**
**Increased HIV/STI prevention and control practices
by high-risk behavior groups in target areas**
- **IR 2.4**
**Strengthened capacity and programs
to control selected infectious diseases**

New Initiative

INFECTIOUS DISEASES (ID) PROGRAM

OBJECTIVE

**Strengthen capacity and programs
to control selected infectious diseases**

Major Components

- ◆ **Strengthen MOH's capacity to control vector-borne diseases**
- ◆ **Develop a national antimicrobial resistance surveillance system and increase the rational use of antimicrobial drugs**

VECTOR-BORNE (VB) DISEASES

Background

- | | |
|------------------|---|
| Pre-1960s | Rampant malaria & kala-azar |
| 1958 | Malaria eradication program launched |
| 1970 | Malaria greatly reduced and kala-azar virtually disappeared; Terai opened for settlement & development |
| 1978 | “Eradication” became “control”; Japanese encephalitis (JE) detected |
| 1979 | Malaria Research & Training Center (MRTC) established |
| 1990s | MRTC became VB Disease Research and Training Center (VBDRTC), functioning with unfulfilled potential; malaria, VB and EPI disease sentinel surveillance/early warning reporting system (EWARS) initiated |
| 1999 | Malaria reemerging, kala-azar increasing sharply, and JE occurring in annual epidemics; EWARS expanding but levels/extent of problems not clearly defined |

VECTOR-BORNE DISEASES

Activities

- **Institutional capacity strengthened at VBDRTC**
- **Baseline and ongoing assessments**
- **VB disease surveillance**
- **Control strategies developed**
- **Collaboration on inter-country/border issues**

ANTIMICROBIAL RESISTANCE

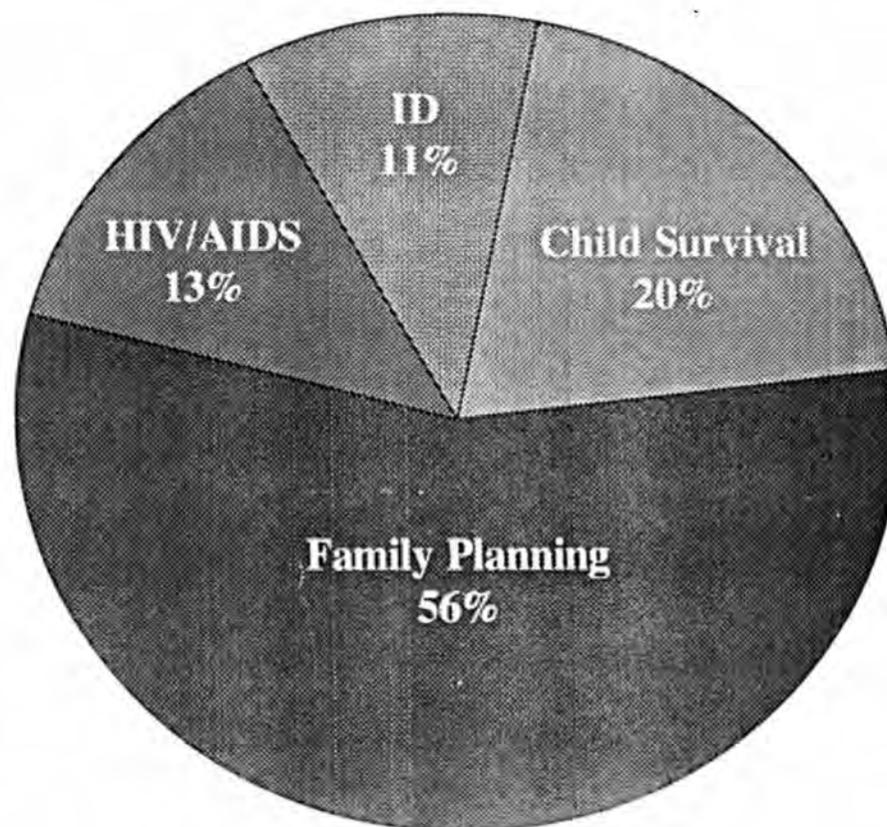
Background

- **USAID SO2 program promotes antibiotic treatment of ARIs and STIs as well as control of diarrheal diseases**
- **Ad hoc studies in Nepal documented poor prescribing practices**
- **Antibiotic and antimalarial resistance documented**
- **Information & communication activities initiated**
 - **Drug Information Network of Nepal**
 - **revised national formulary**
 - **information bulletins & trainings**

ANTIMICROBIAL RESISTANCE ACTIVITIES

- **Surveillance**
- **Rational use**
- **Regional collaboration**

Percentage Distribution of Financial Support for Nepal's Population and Health Sector Programs, 1997-2002



Bilateral agreement with HMG: US \$50 million for 1997-2002; Central (USAID/W) support: Up to \$7 million per year for 1997-2002 (amount varies according to performance, need politics and availability of funds).

STRATEGIC OBJECTIVE (SO2)

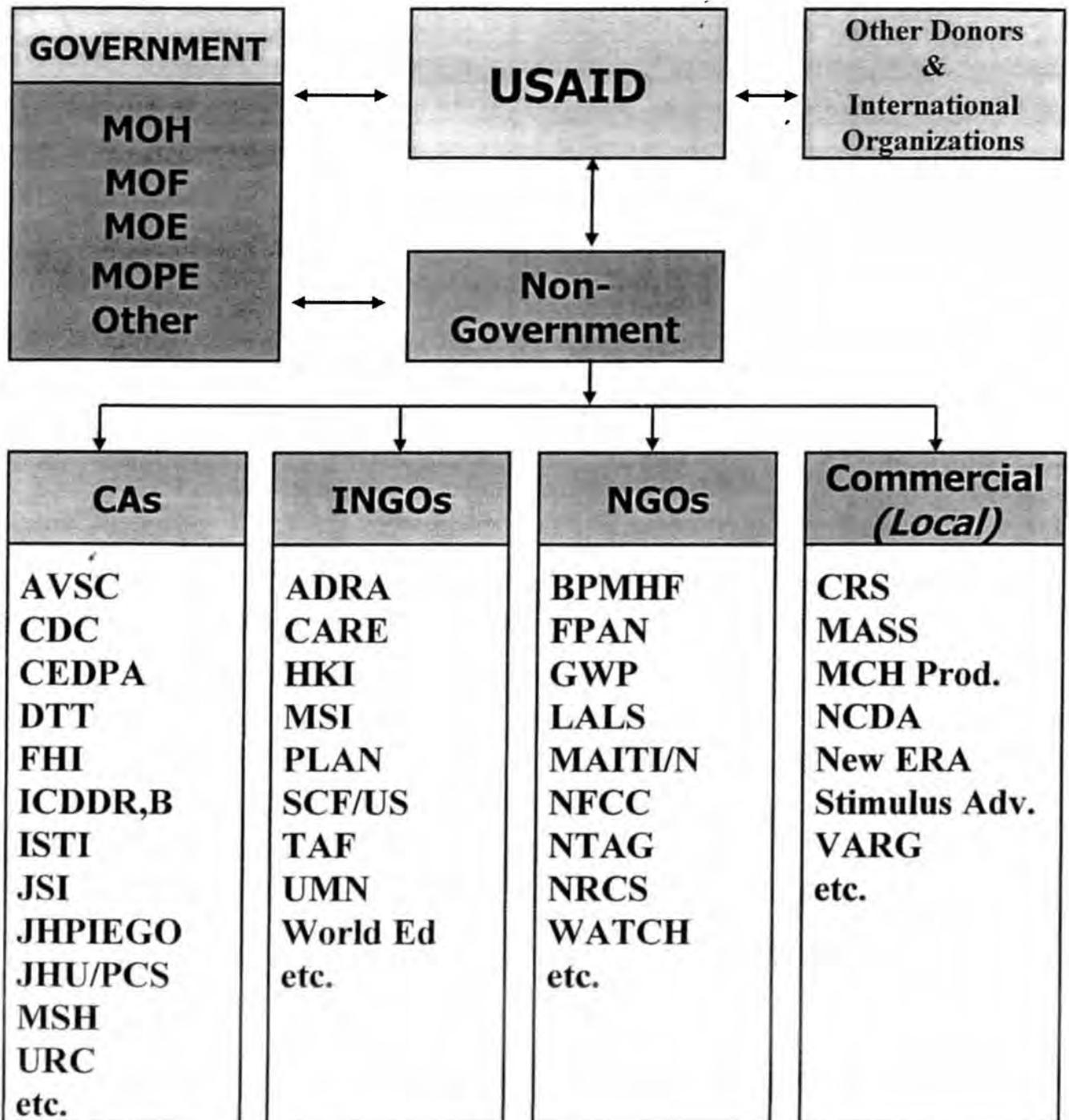
Reduced Fertility and Improved Maternal and Child Health

INDICATORS

- Total fertility rate
- Under-five mortality rate
- Condom use by persons with high-risk behaviors in target areas (or a new indicator of reduced HIV/STI transmission)

INTERMEDIATE RESULT	INTERMEDIATE RESULT	INTERMEDIATE RESULT	INTERMEDIATE RESULT
Increased Use of Quality Family Planning Services	Increased Use of Selected Maternal and Child Health Services	Increased HIV/STI Prevention and Control Practices by High-Risk Groups in Targeted Areas	Strengthened Capacity and Programs to Control Selected Infectious Diseases
INDICATORS	INDICATORS	INDICATORS	INDICATORS
<ul style="list-style-type: none"> • Contraceptive prevalence rate (modern methods) • Annual couple-years of protection for MOH and USAID-supported programs • District stores stocking a three-month supply of contraceptives • Health workers trained to competency as family planning specialists • Service delivery points certified for provision of contraceptive services 	<ul style="list-style-type: none"> • Children receiving vitamin A supplementation on a regular basis in priority districts • Children with pneumonia symptoms given appropriate treatment in intervention districts • Use of oral rehydration therapy in recent diarrheal episode in children • A new indicator of maternal health 	<ul style="list-style-type: none"> • Condom sales in target areas • Chemists and druggists in the target areas trained in proper drug dispensing practices for STIs • A new measure of behavior change (e.g., number of non-regular sex partners) • Health care providers treat STI patients according to national protocols and give them appropriate advice on condoms and partner notification 	<ul style="list-style-type: none"> • Provider consultations where clients with a set of target conditions who are prescribed/dispensed appropriate antimicrobials & counseled correctly • Surveillance reporting per standard (on time and correctly) for (a) anti-microbial resistance & (b) vector-borne diseases • Percent of agreement in identity of isolates & susceptibility results relative to the reference laboratory (ICDDR, B)

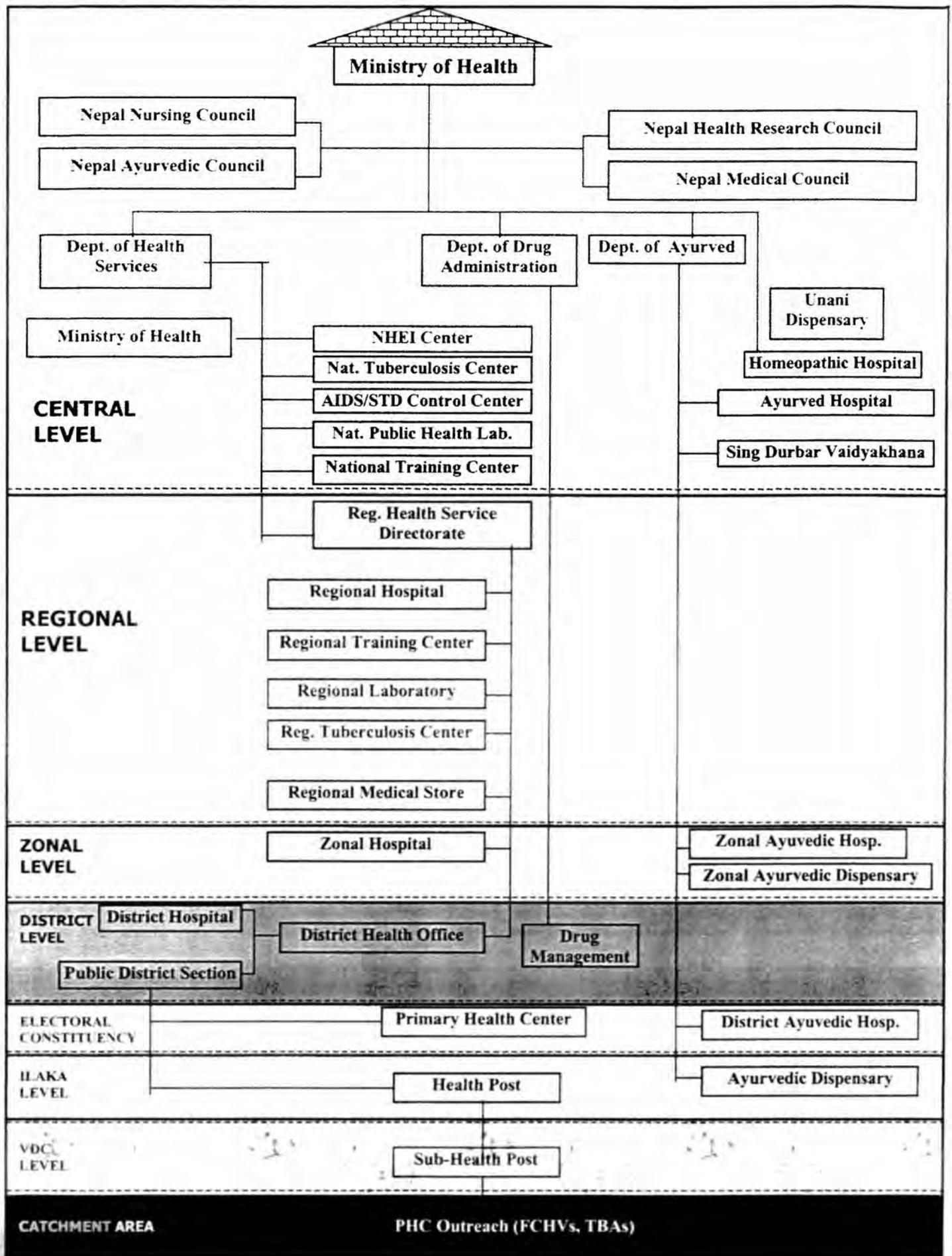
USAID COLLABORATORS & PARTNERS



USAID IMPLEMENTING PARTNERS

- **Ministry of Health (MOH)**
- **Non-Governmental Organizations (NGOs)**
- **Private/Commercial Sector**

HIERARCHICAL ORGANIZATIONAL STRUCTURE OF THE MINISTRY OF HEALTH



USAID SUPPORT

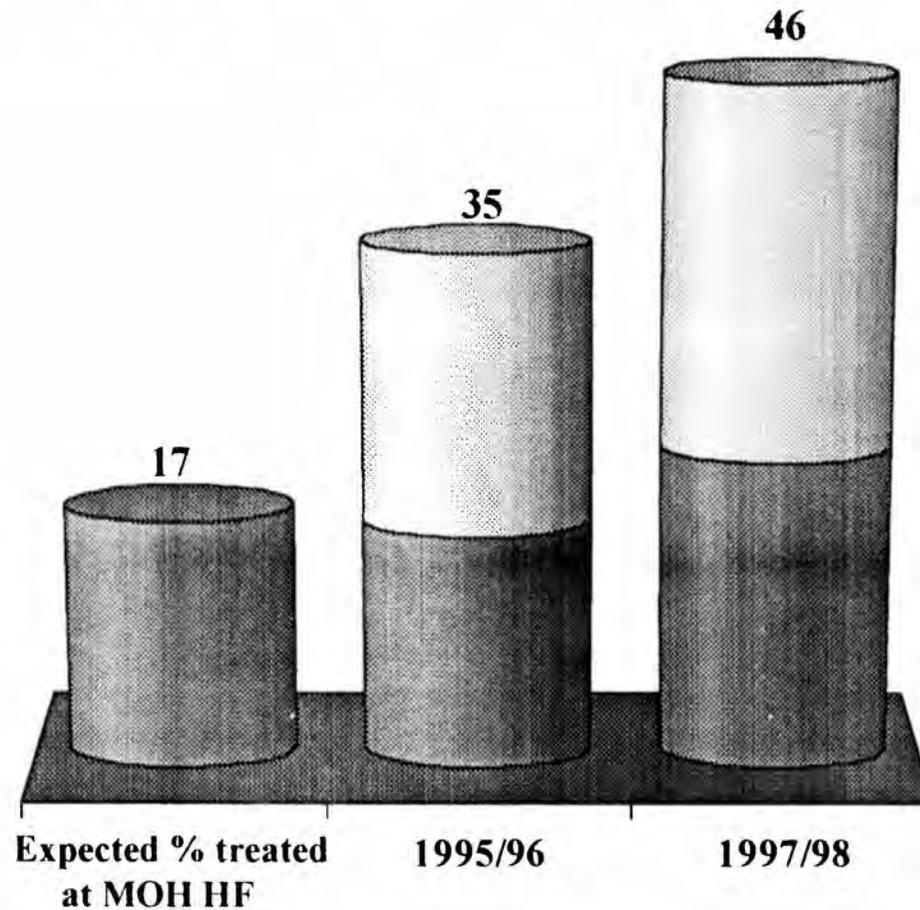
Ministry of Health (MOH)

- **Strengthen MOH logistics/information systems**
- **Provide contraceptives; support national family planning/reproductive health training, information/communication messages and year-round family planning services**
- **Support better coordination, policy, training and improve demand/access to maternal and neonatal health services**
- **Train village-level workers to provide child survival, family planning and clean-delivery services**
- **Support semi-annual delivery of vitamin A capsules to children 6 up to 60 months, modifying food habits**
- **Implement policies and programs to support increased ORT use and community treatment of pneumonia**

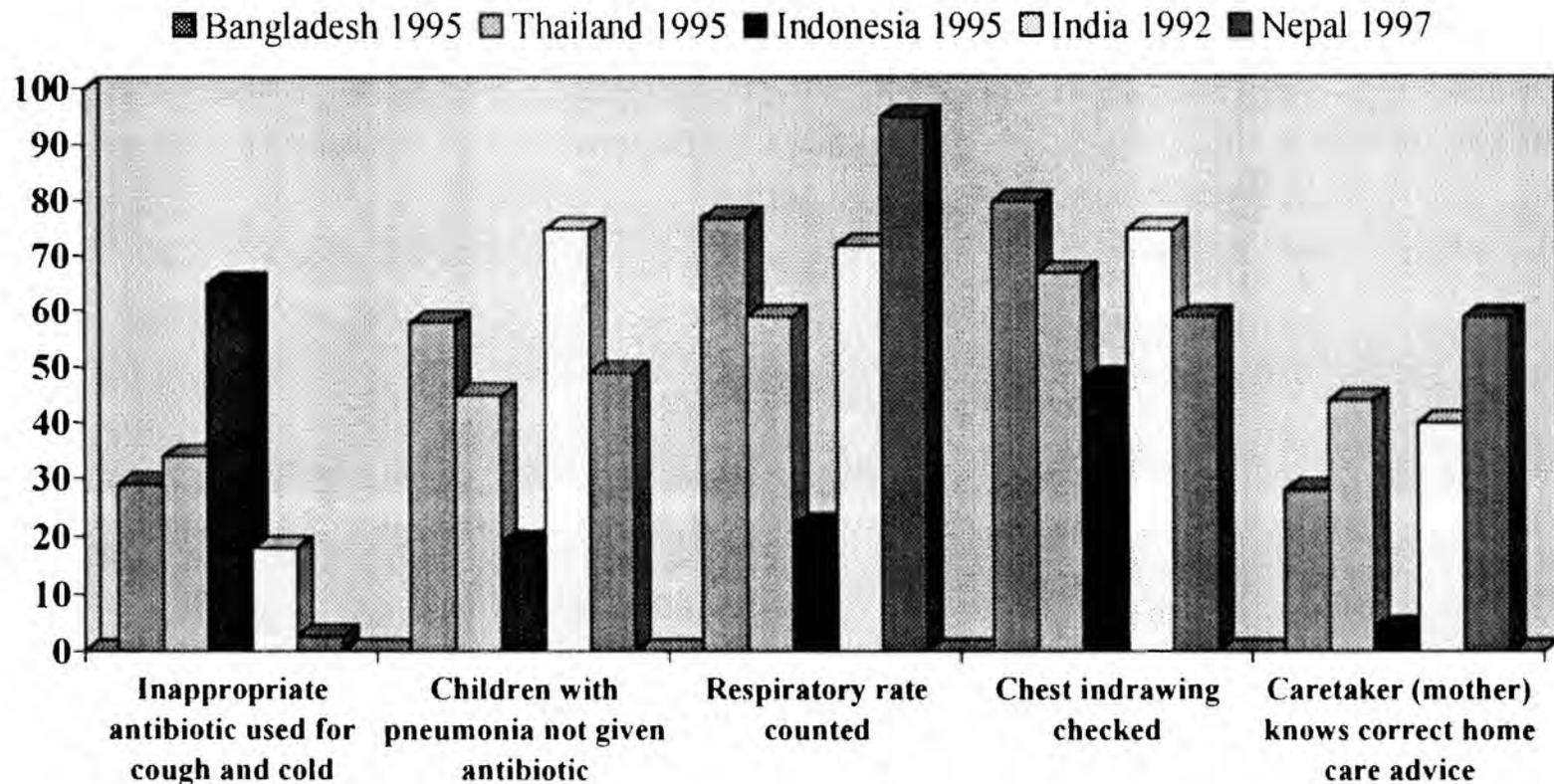
Percentage of Pneumonia Cases Treated at a Health Facility and by the Community

■ Treated at a health facility

□ Treated by the community (FCHVs & VHWs)

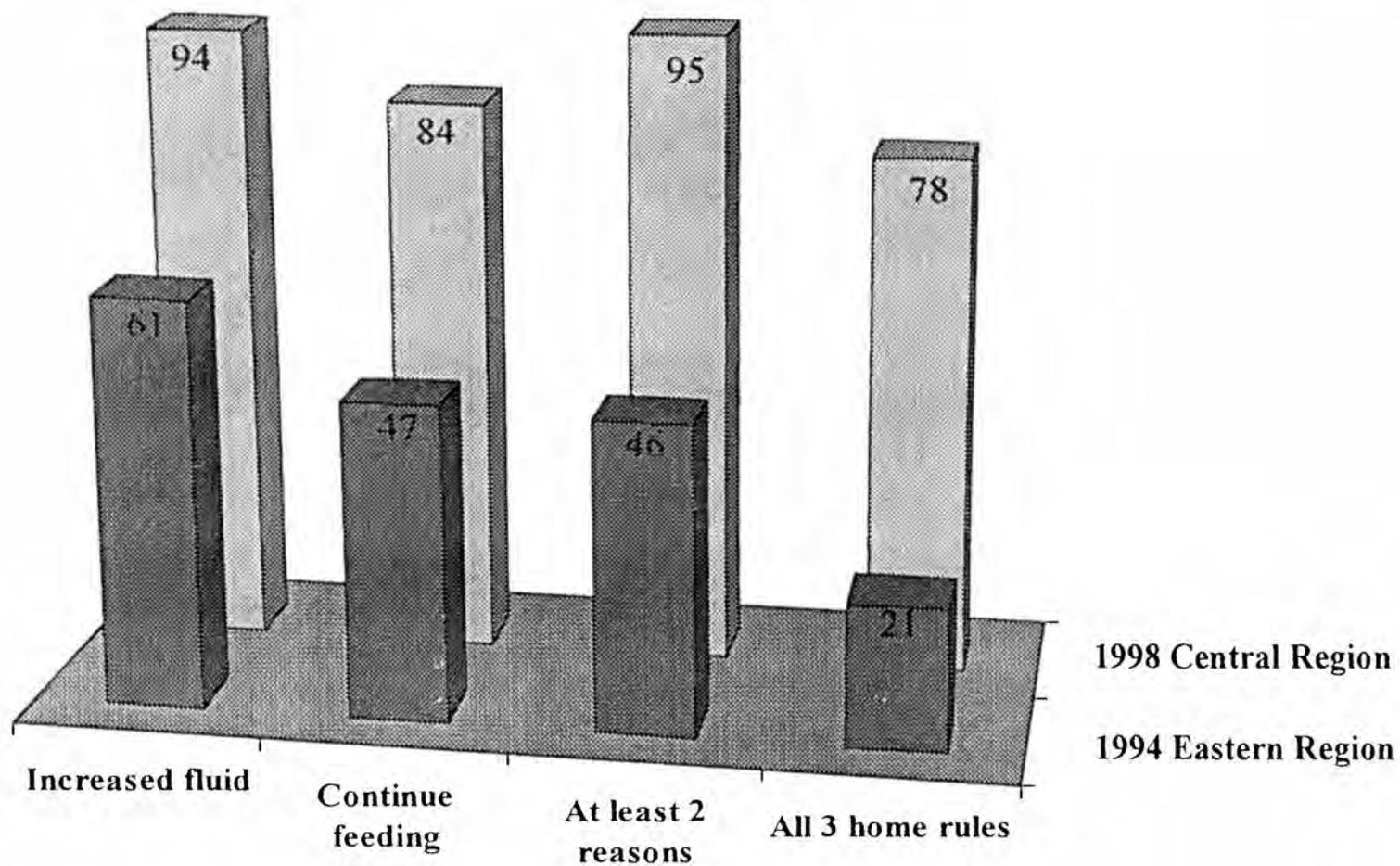


ARI Health Facility Surveys in Four Asian Countries and Nepal FCHVs



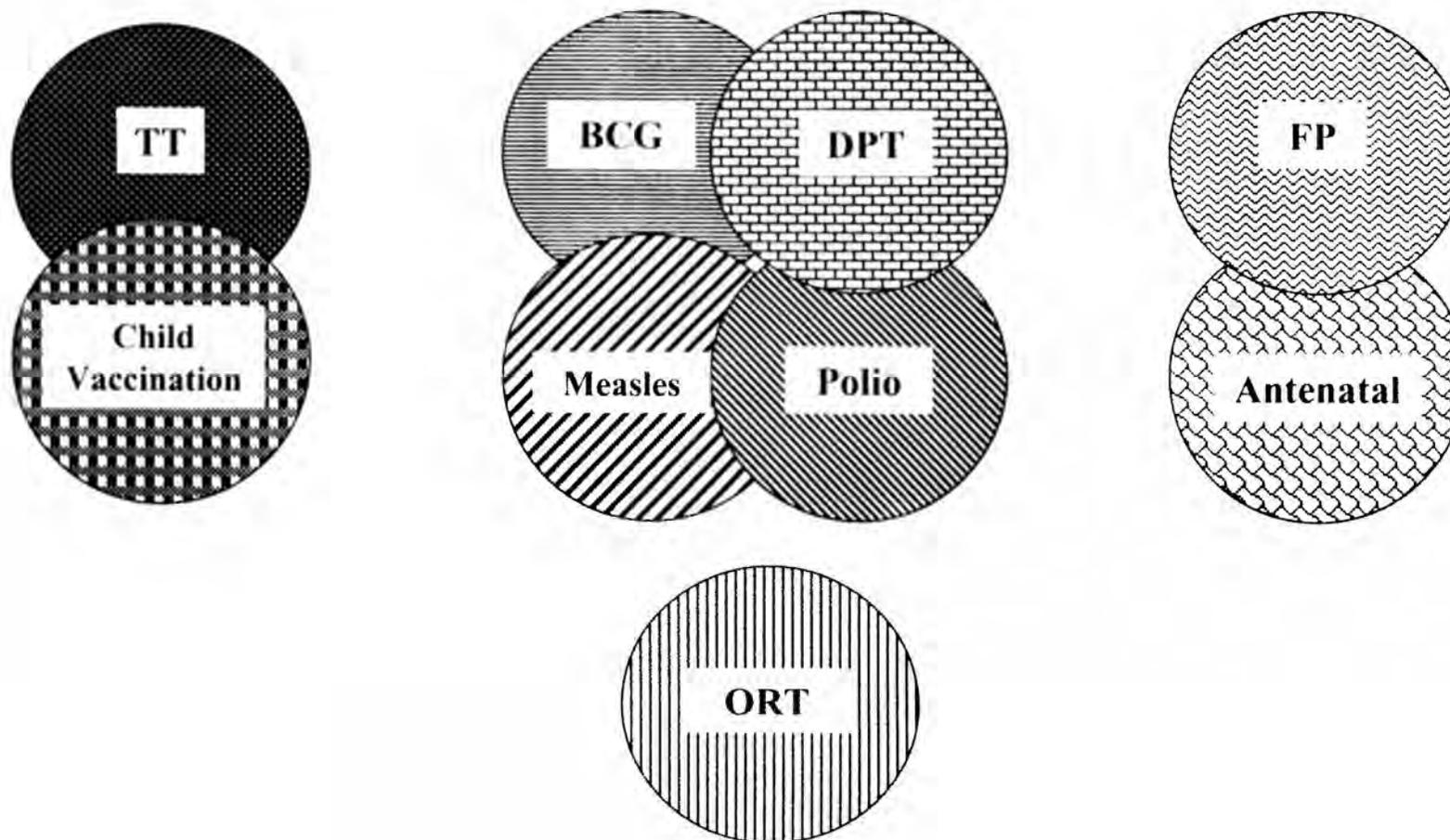
Note: The data for Nepal refer to FCHVs. Mother's knowledge regarding home care refers to knowing "two signs to return" for care.

FCHVs' Knowledge (%) about Three Rules of Home Treatment, 1994 & 1998

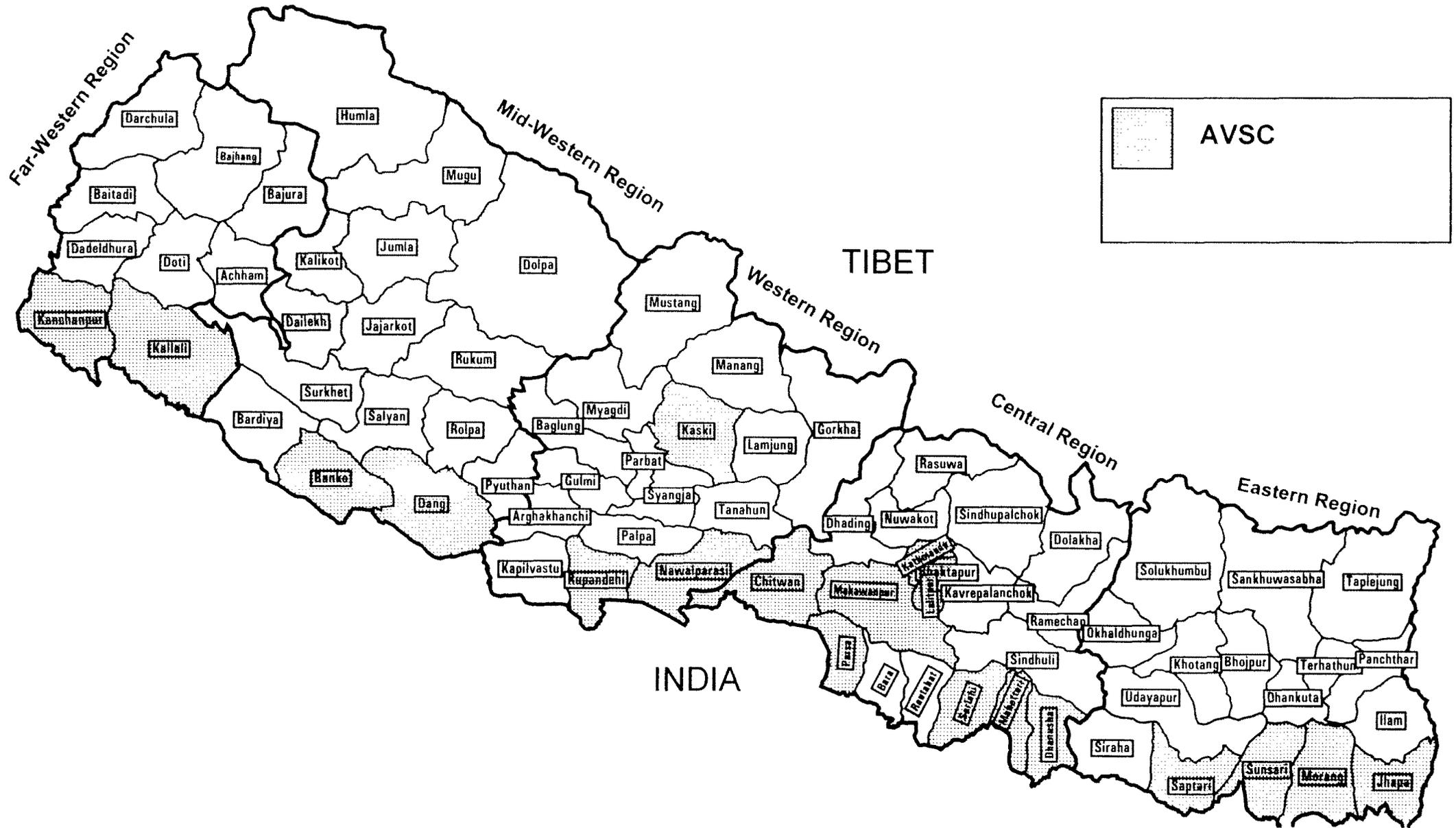


District-level Correlation between Maternal and Child Health Service Components: Nepal, 1991

Child Vaccination



DISTRICTS COVERED BY AVSC, 1999

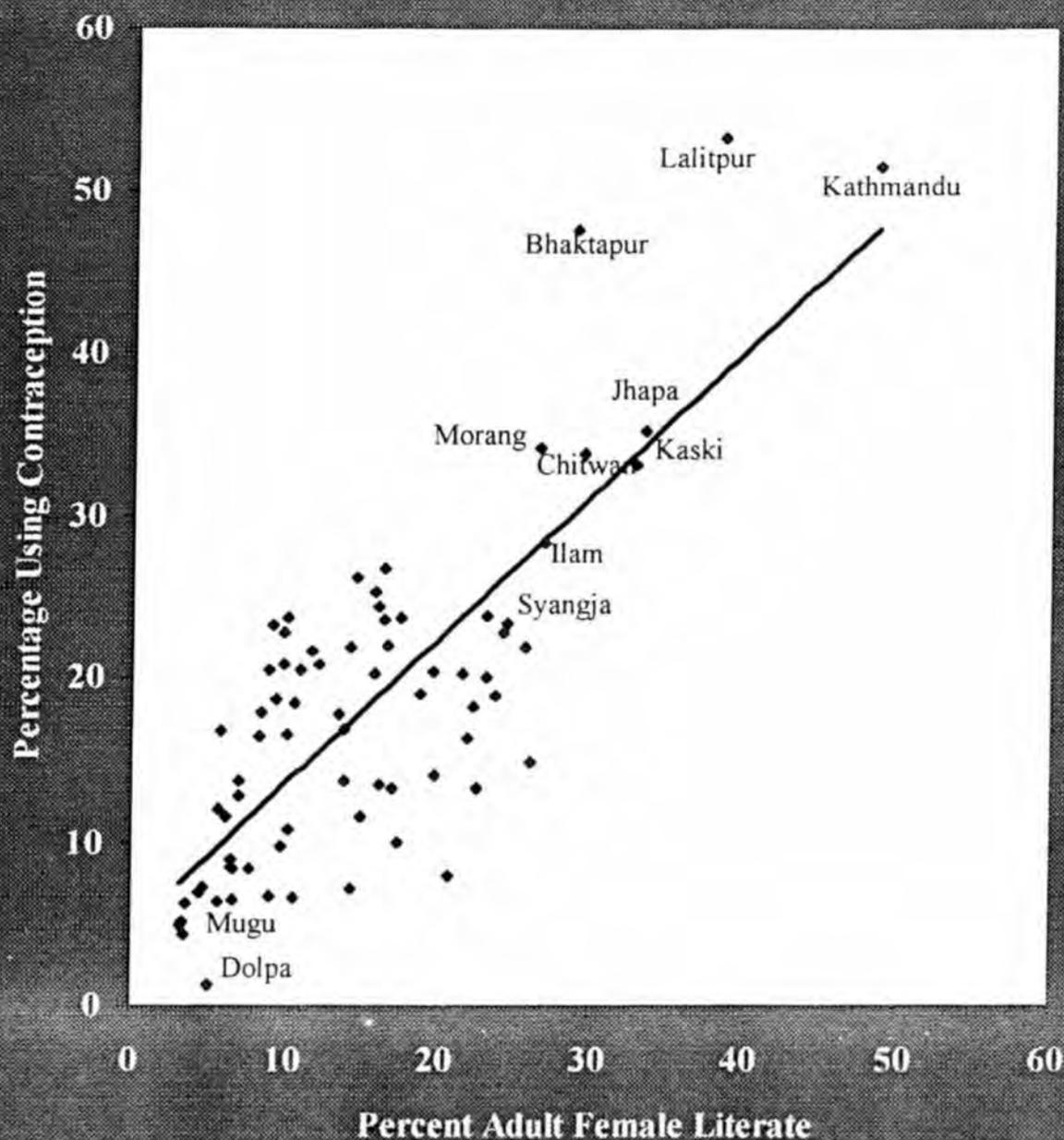


USAID SUPPORT

Non-Governmental Organizations

- ◆ **Extend access and improve family planning and child survival services in 24 districts**
- ◆ **Develop improved nutrition-communication messages and programs**
- ◆ **Promote activities to combat trafficking of girls and women**
- ◆ **Provide health-focused literacy classes for adult women**

Relationship between Adult Female Literacy and Contraceptive Use, 75 Districts, 1991

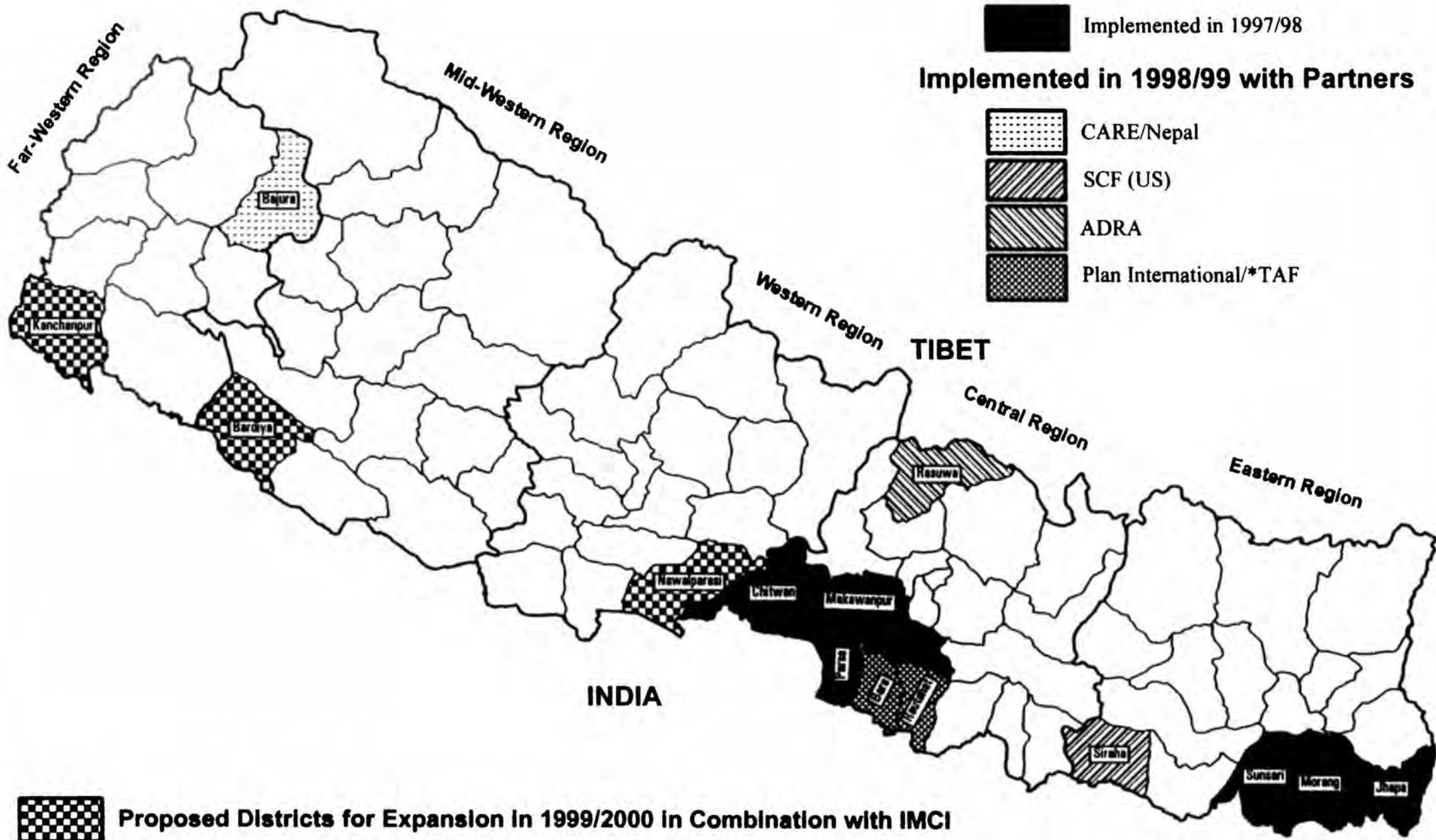


Linear trend based on the equation: $CPR = 4.754 + 0.881 (AFLIT)$

USAID-FUNDED INGOs & CAs WORKING IN HEALTH BY PROGRAM DISTRICTS: APRIL 1999

DISTRICT	ORGANIZATION
Kavre, Rasuwa	ADRA
Bajura, Mahottari, Solukhumbu, Syanja, Kanchanpur	CARE
Dhanusha, Saptari, Doti, Kailali, Udayapur Bara, Rautahat	CEDPA PLAN
Nuwakot, Siraha	SCF
Bardiya, Dang, Bara, Chitwan, Jhapa, Sindhuli, Banke, Ilam, Udayapur, Nawalparasi, Kailali	TAF
Banke, Bara, Bardiya, Chitwan, Dang, Doti, Dhanusha, Ilam, Jhapa, Kailali, Nawalparasi, Sindhuli, Udayapur	World Education (with CEDPA & TAF)
Bara, Chitwan, Dhading, Dhanusha, Jhapa, Mahottari, Makawanpur, Morang, Nawalparasi, Parsa, Rautahat, Rupandehi, Saptari, Sarlahi, Siraha, Sunsari	FHI/AIDSCAP II
Banke, Bhaktapur, Chitwan, Dang, Dhanusha, Jhapa, Kailali, Kanchanpur, Kaski, Kathmandu, Lalitpur, Mahottari, Makawanpur, Morang, Nawalparasi, Parsa, Rupandehi, Saptari, Sarlahi, Sunsari	AVSC
TOTAL NO. OF DISTRICTS = 35 TOTAL NO. OF INGOs & CAs = 9	

Community Based Child Health Programs

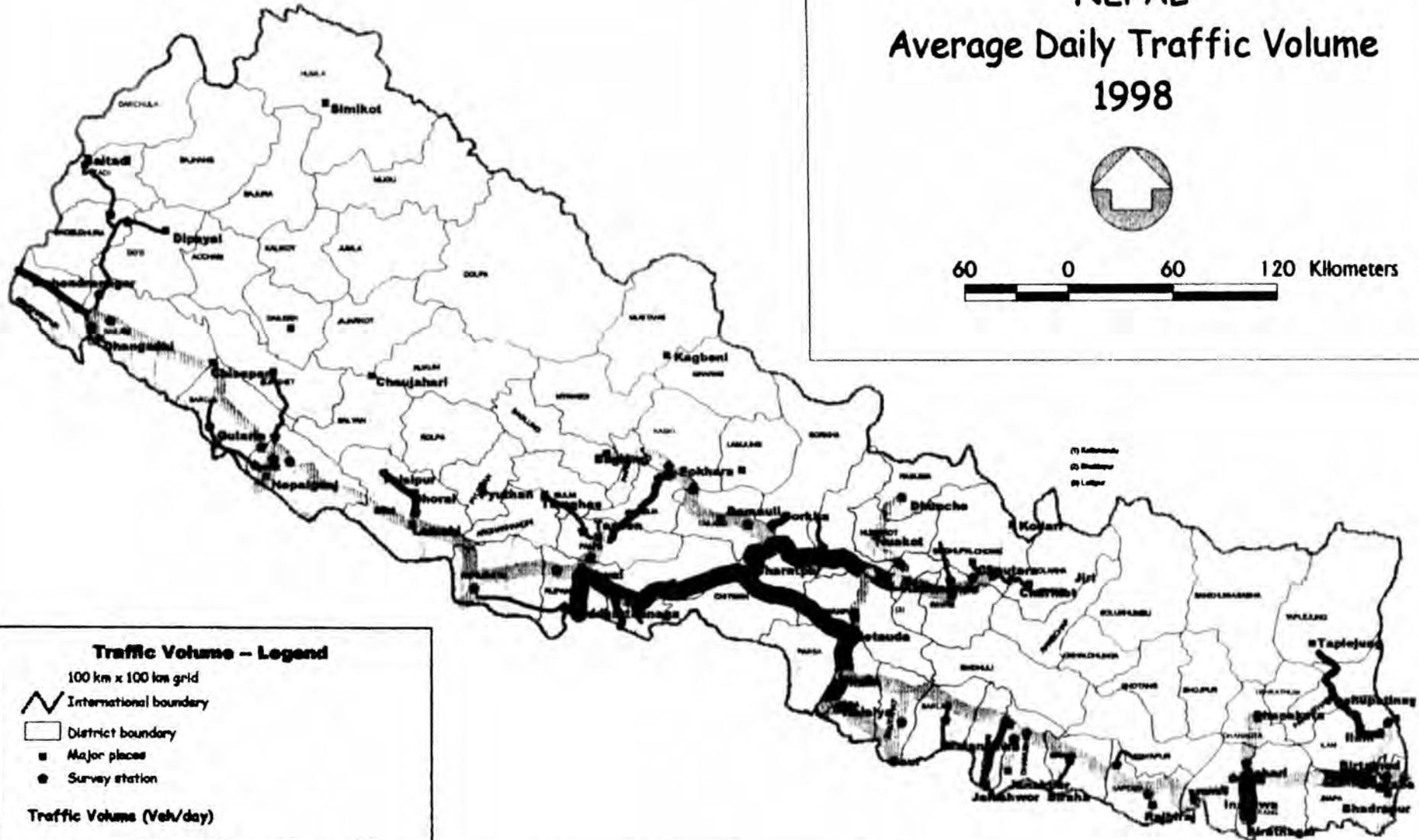


NEPAL

Average Daily Traffic Volume 1998



60 0 60 120 Kilometers



- (1) Subroad
- (2) Roadway
- (3) Lorry

Traffic Volume - Legend

100 km x 100 km grid

International boundary

District boundary

Major places

Survey station

Traffic Volume (Veh/day)

2500 1367 637 369 221



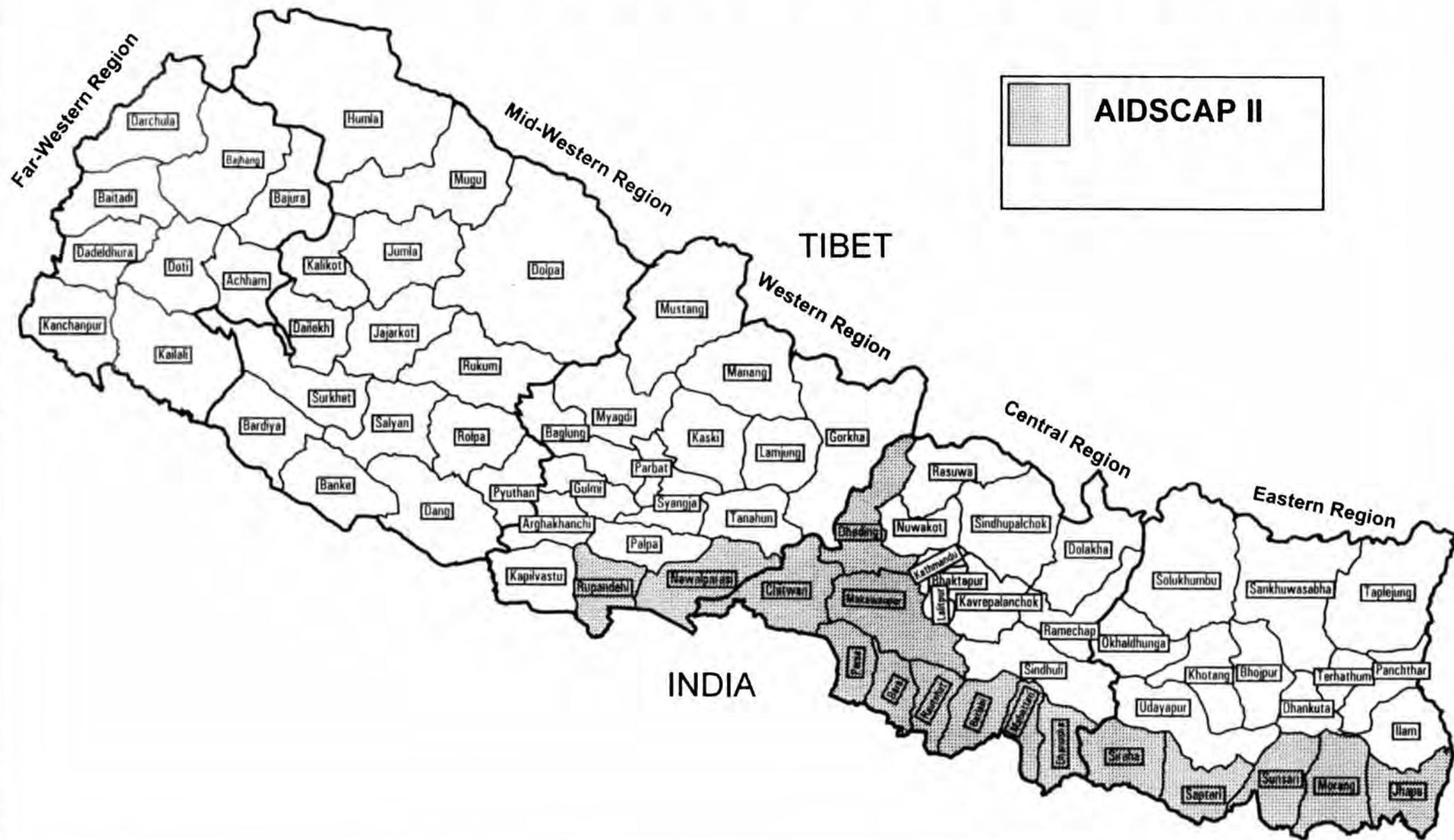
Road with no traffic data

SOURCE OF INFORMATION

Traffic Data: Ministry of Works and Transport, HMG, 1998.
Road Map: Topographic Survey Branch, HMG, 1997.

Prepared for EHP by: Indra Sharan KC, July, 1999.
Email: gsrmail@adsai.wtk.com.np

DISTRICTS COVERED BY AIDSCAP II, 1999



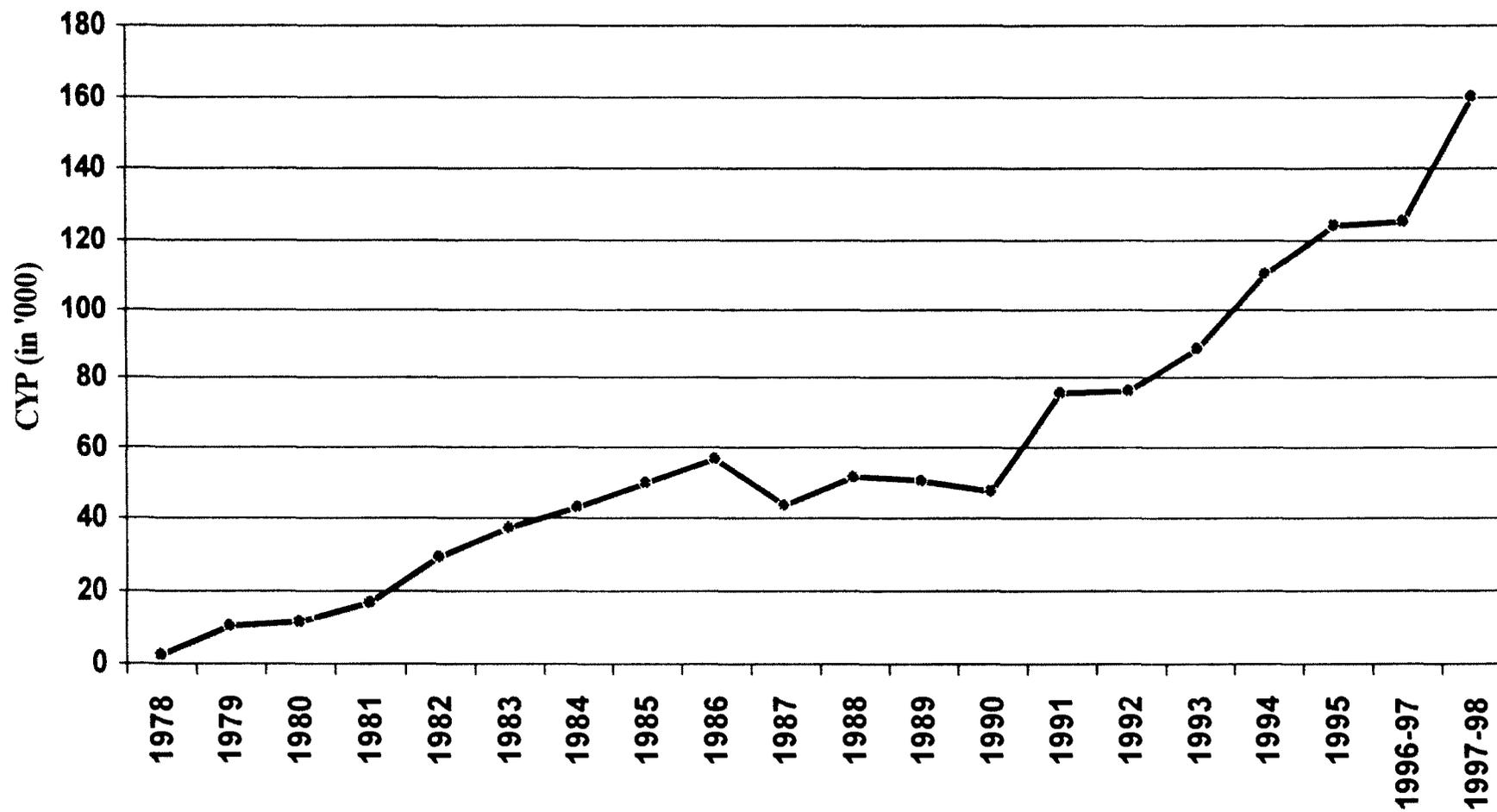
USAID SUPPORT

Private Sector

- **Encourage private doctors to provide high-quality family planning/reproductive health services (e. g., STI treatment)**
- **Assist commercial firms to expand social marketing of contraceptives and selected health products**
- **Support training of chemists/drug sellers to properly treat STIs**
- **Work with private providers to strengthen rational prescribing of antimicrobials**

Nepal CRS Company

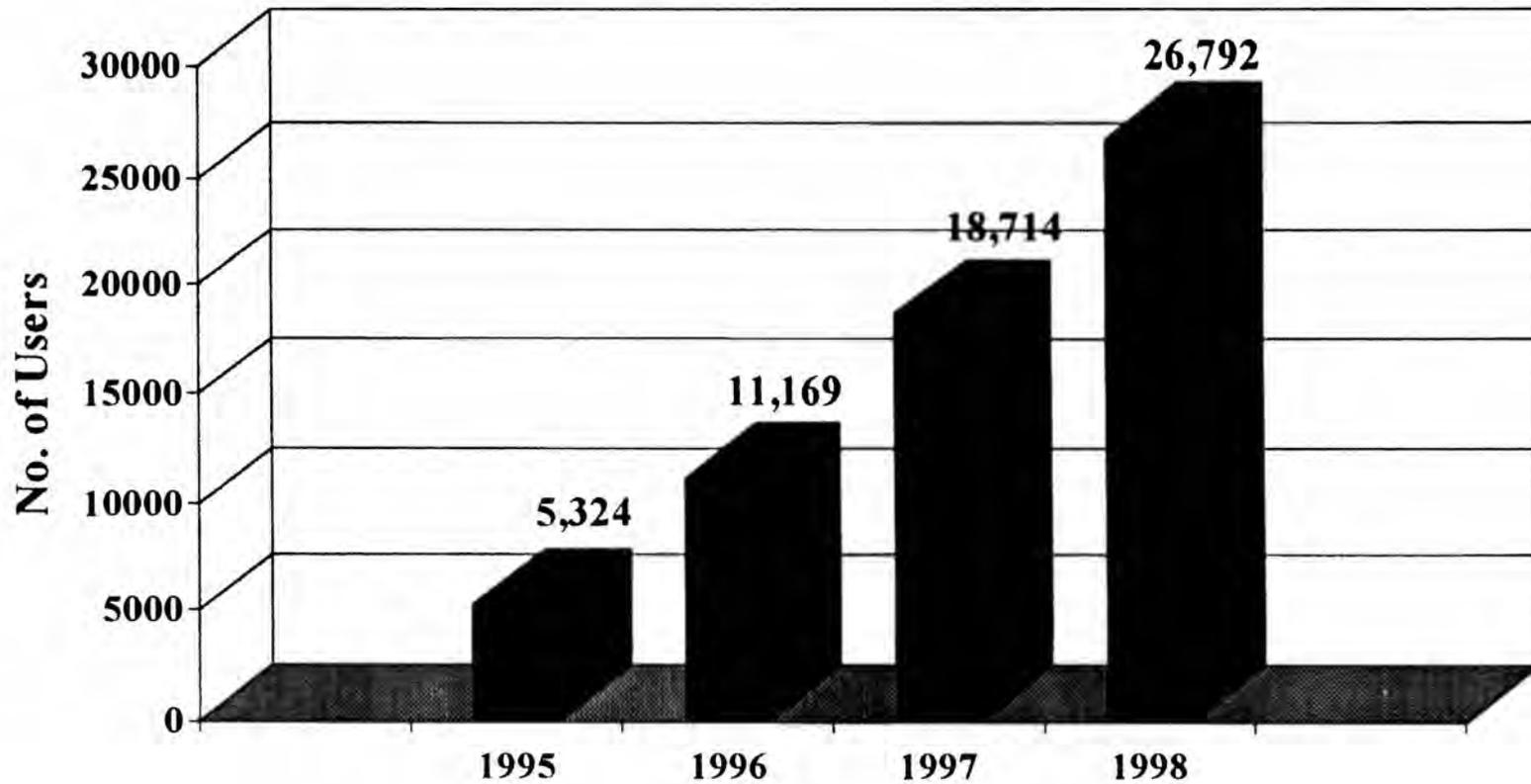
Total Contraceptive Sales, 1978-1997/98



FAMILY HEALTH SERVICES NETWORK (PSSN)

- ◆ **1995 — Private providers network to improve quality and access**
- ◆ **Physicians pay to join**
 - **training**
 - **access to contraceptive supplies (CRS)**
 - **equipment loans**
 - **supervision/monitoring, continuing education**
 - **marketing, logo, prestige**
- ◆ **Membership growth (35 to 138)**
- ◆ **Expansion plans**
 - **members to include nurses and paramedics**
 - **services — for example, child health, STIs, antenatal care, infertility services**

Growth of Family Health Services Network (PSSN), 1995-1998



PHARMACY NETWORK FOR SANGINI® [DEPO-PROVERA®]

- ◆ **1994 – Pharmacy Network to improve access to Depo-Provera®**

- ◆ **Pharmacies join**
 - **Nurses/paramedics trained in screening, counseling and providing Depo-Provera®**

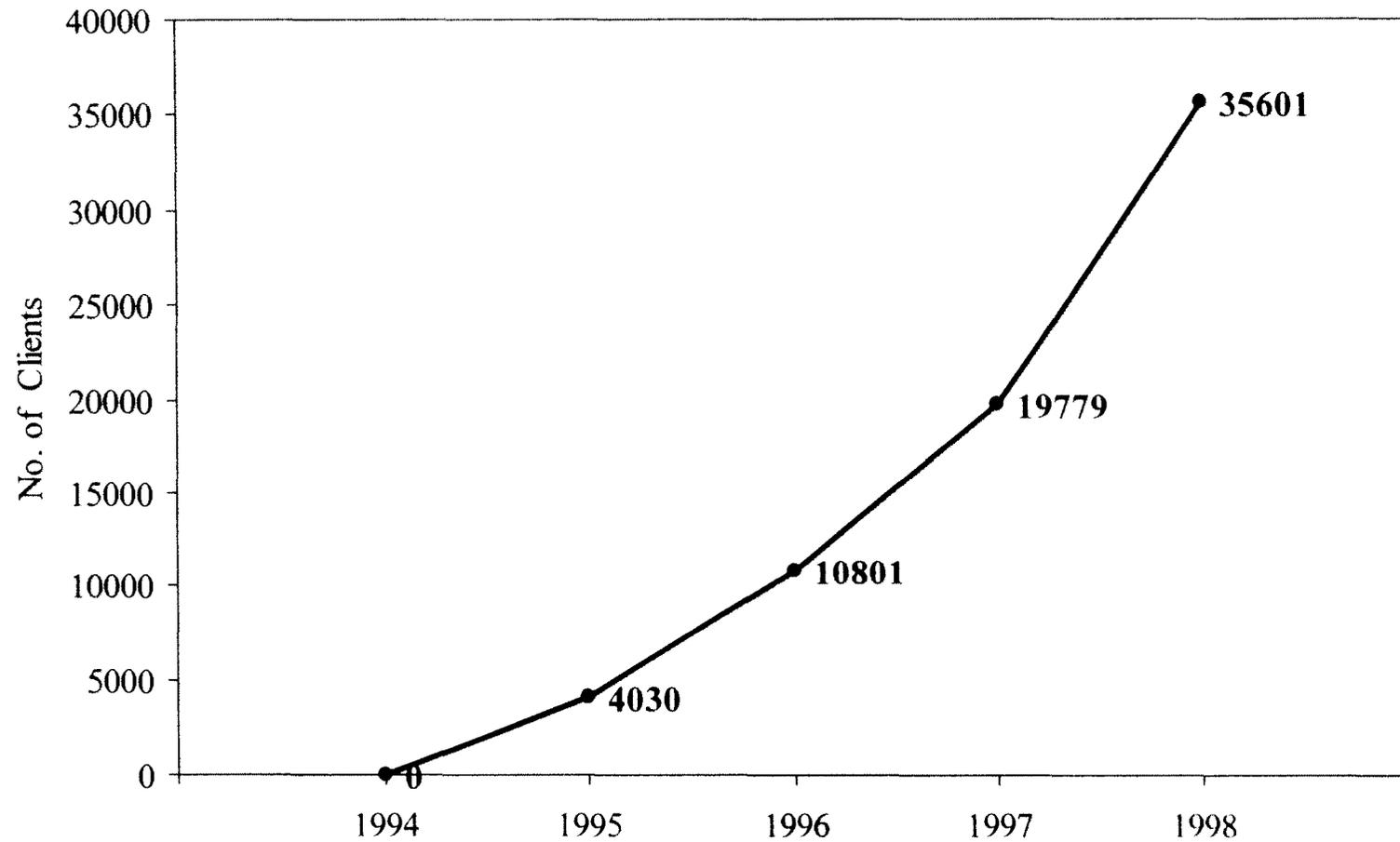
 - **Linkage to Physician Network (PSSN) for other methods/management of side effects**

 - **Marketing, logo, status**

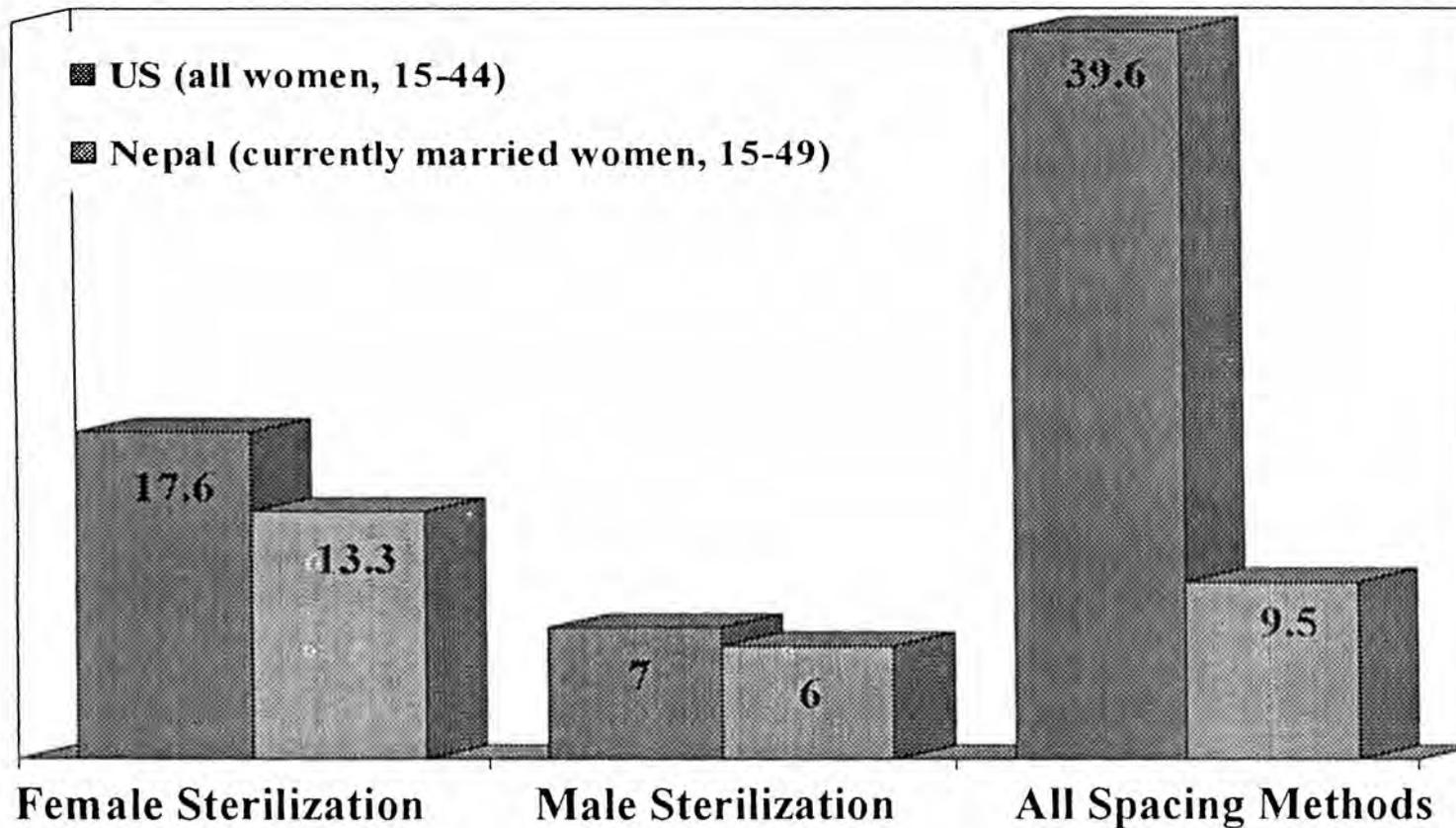
- ◆ **Network Growth**
 - **Outlets (42 to 776)**

 - **Clients served**

Pharmacy Network for Sangini®

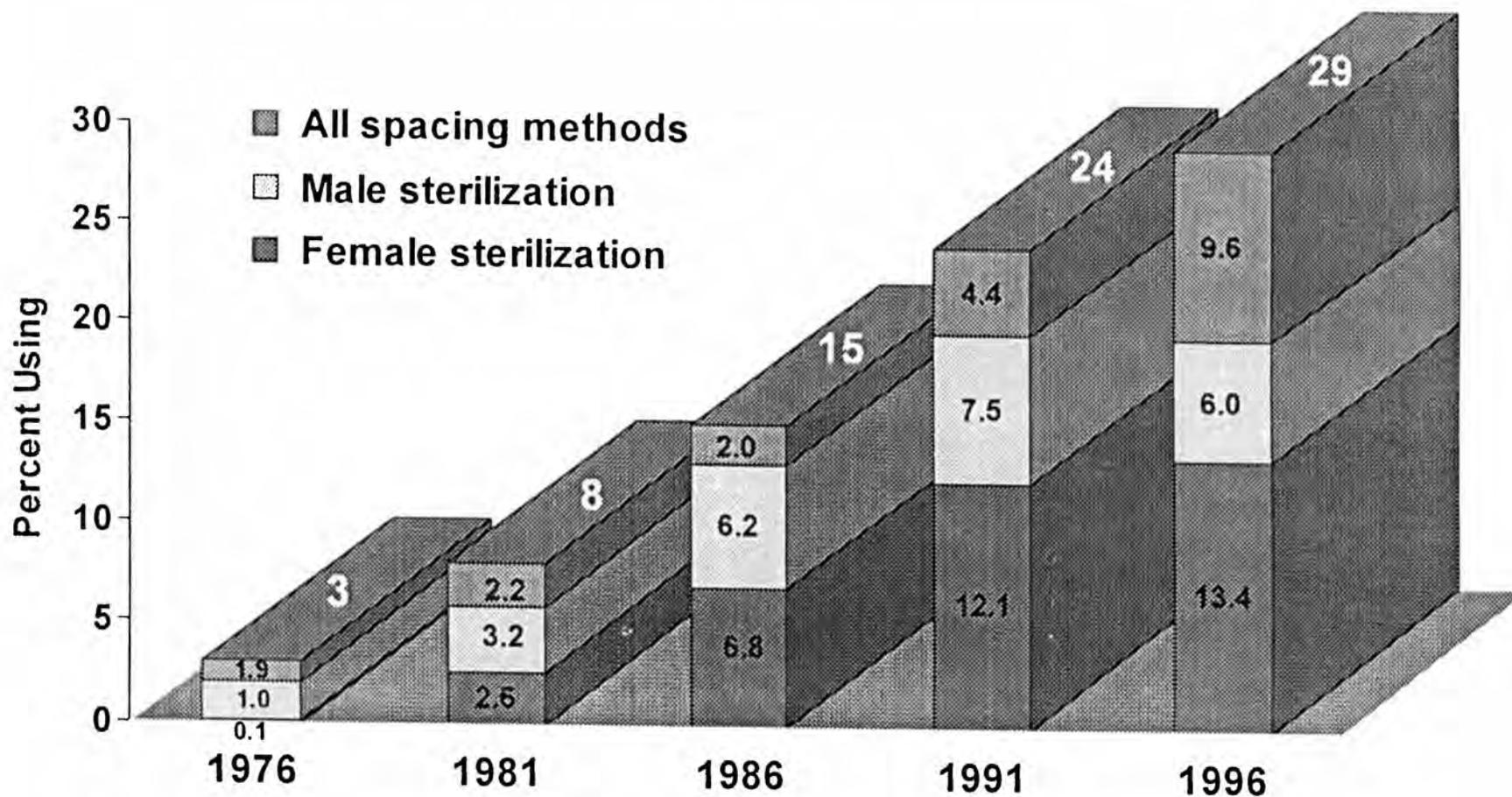


Percentage Using Sterilization and Spacing Methods United States (1995) and Nepal (1996)



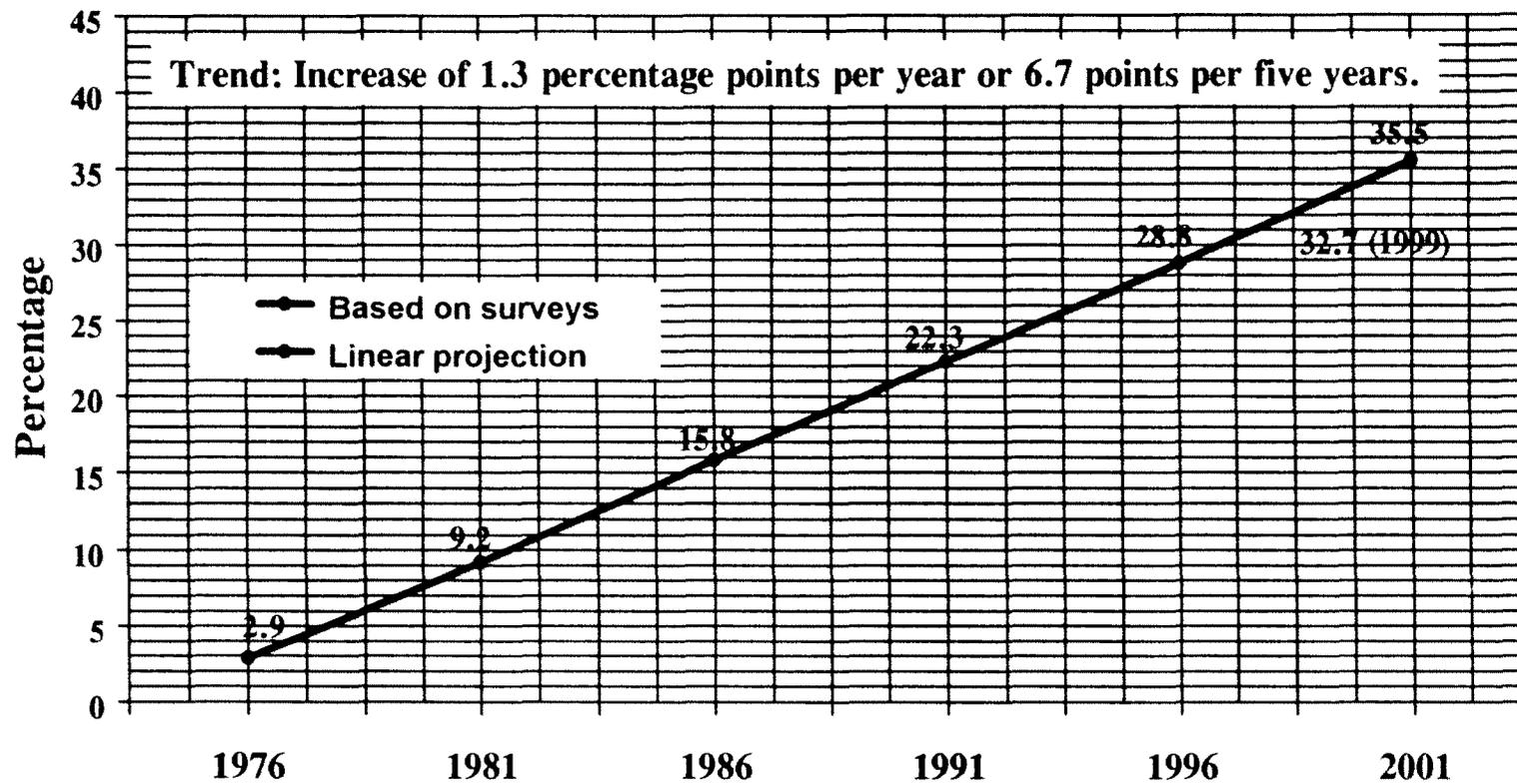
Trends in Contraceptive Use, 1976-1996

(currently married women, 15-49)

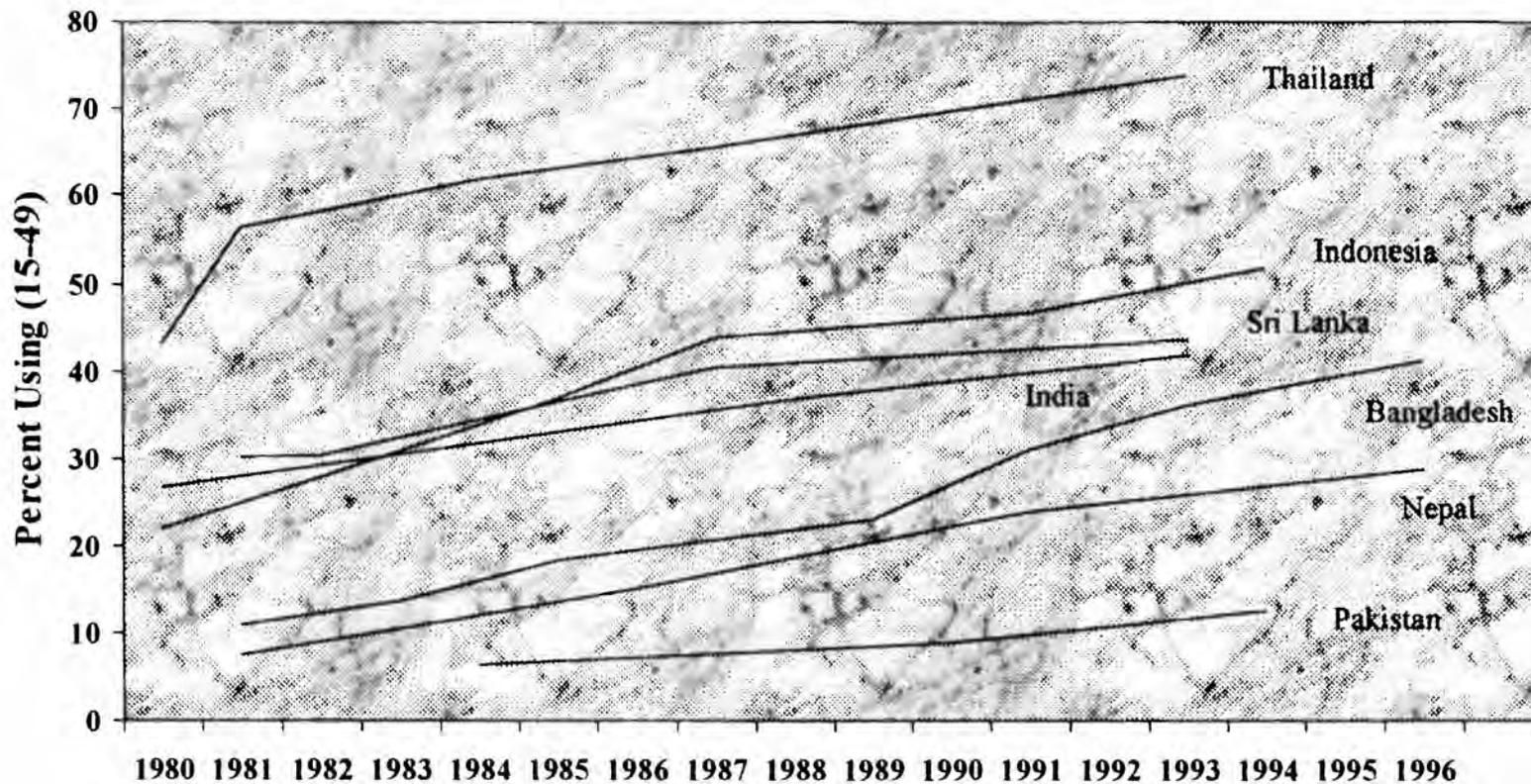


Trend in Contraceptive Prevalence, Nepal

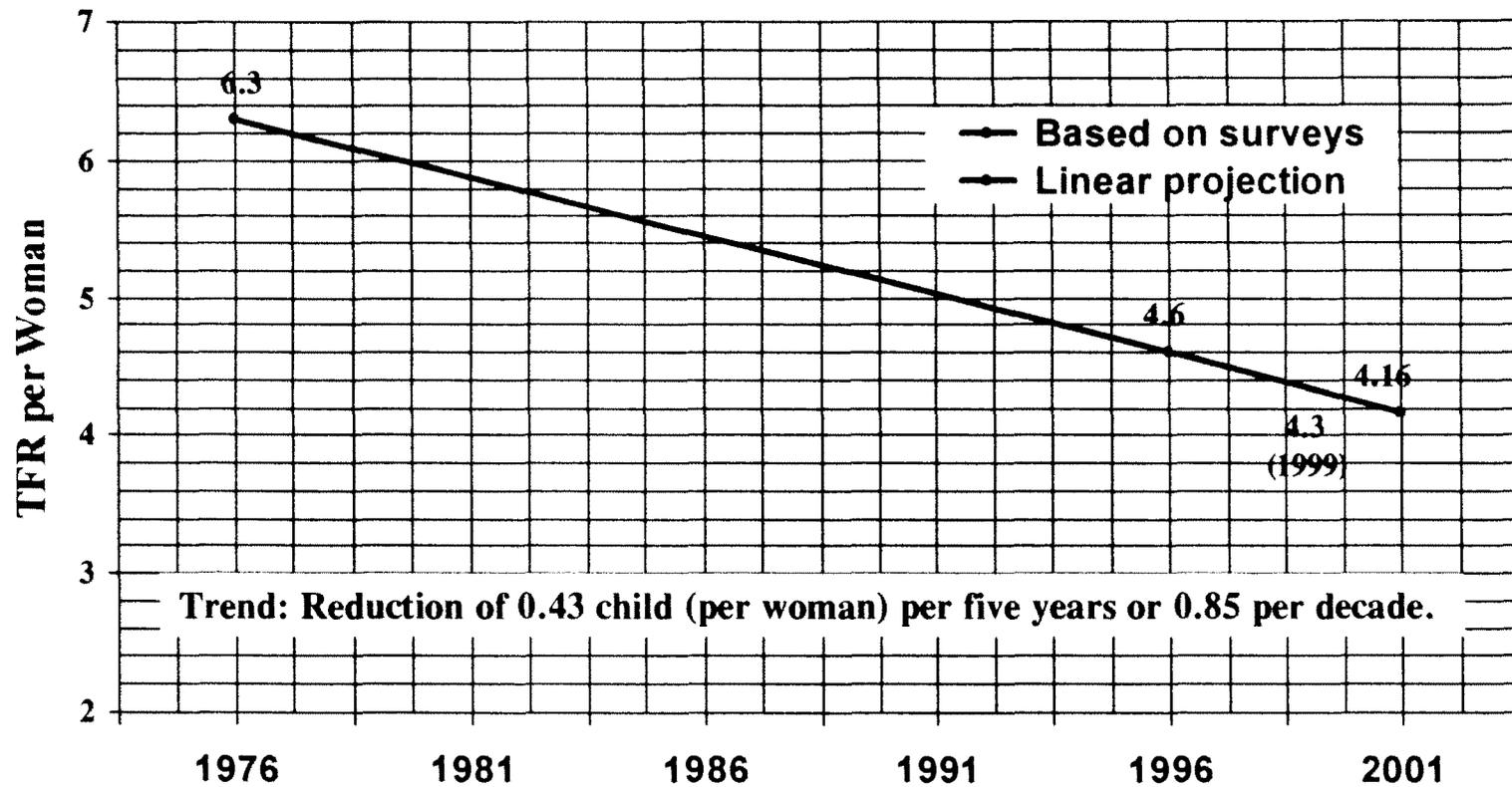
(modern methods among currently married non-pregnant women, 15-49)



Trends in Use of Modern Contraceptive Methods in Seven Asian Countries

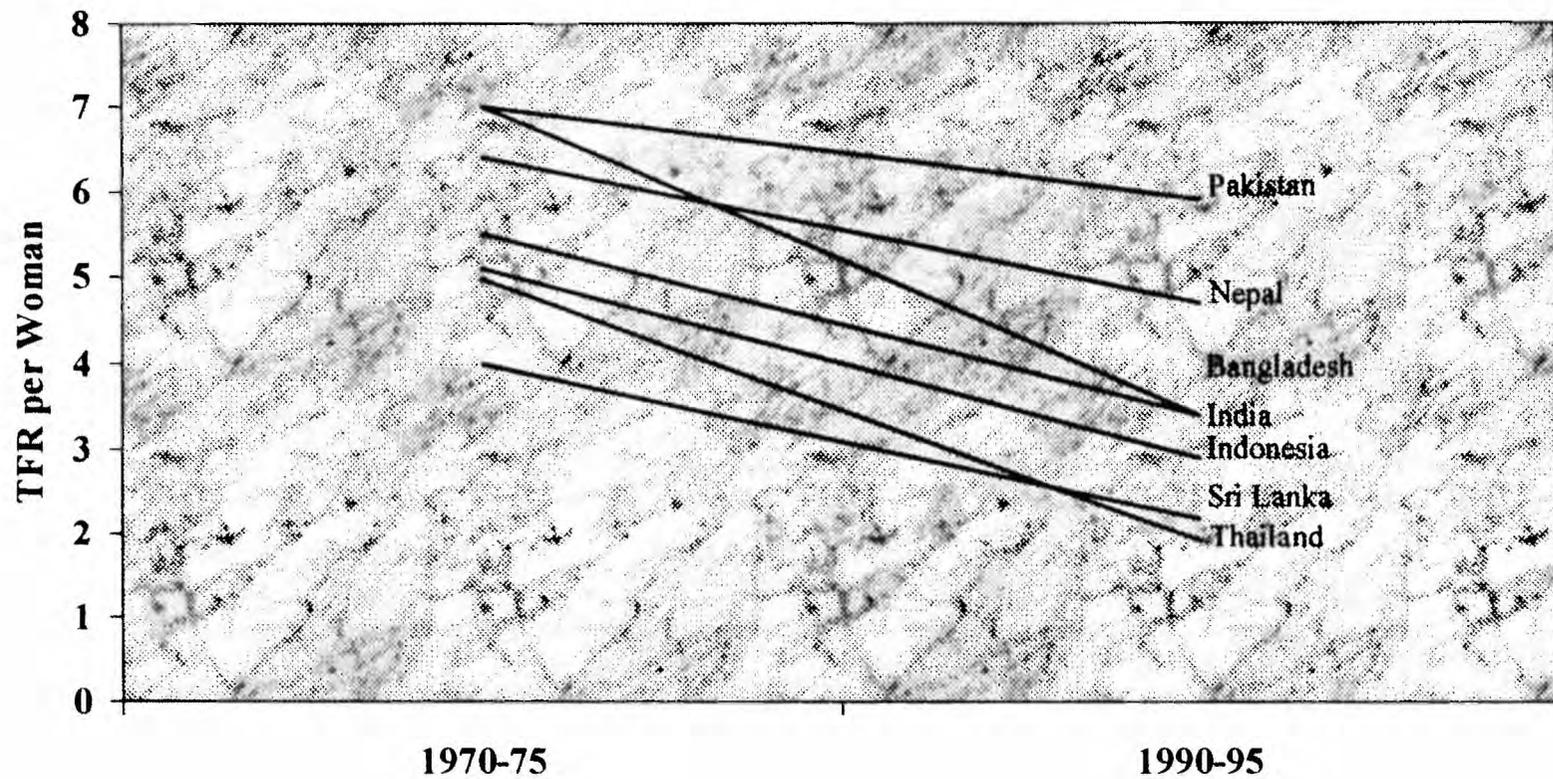


Trend in Fertility, Nepal

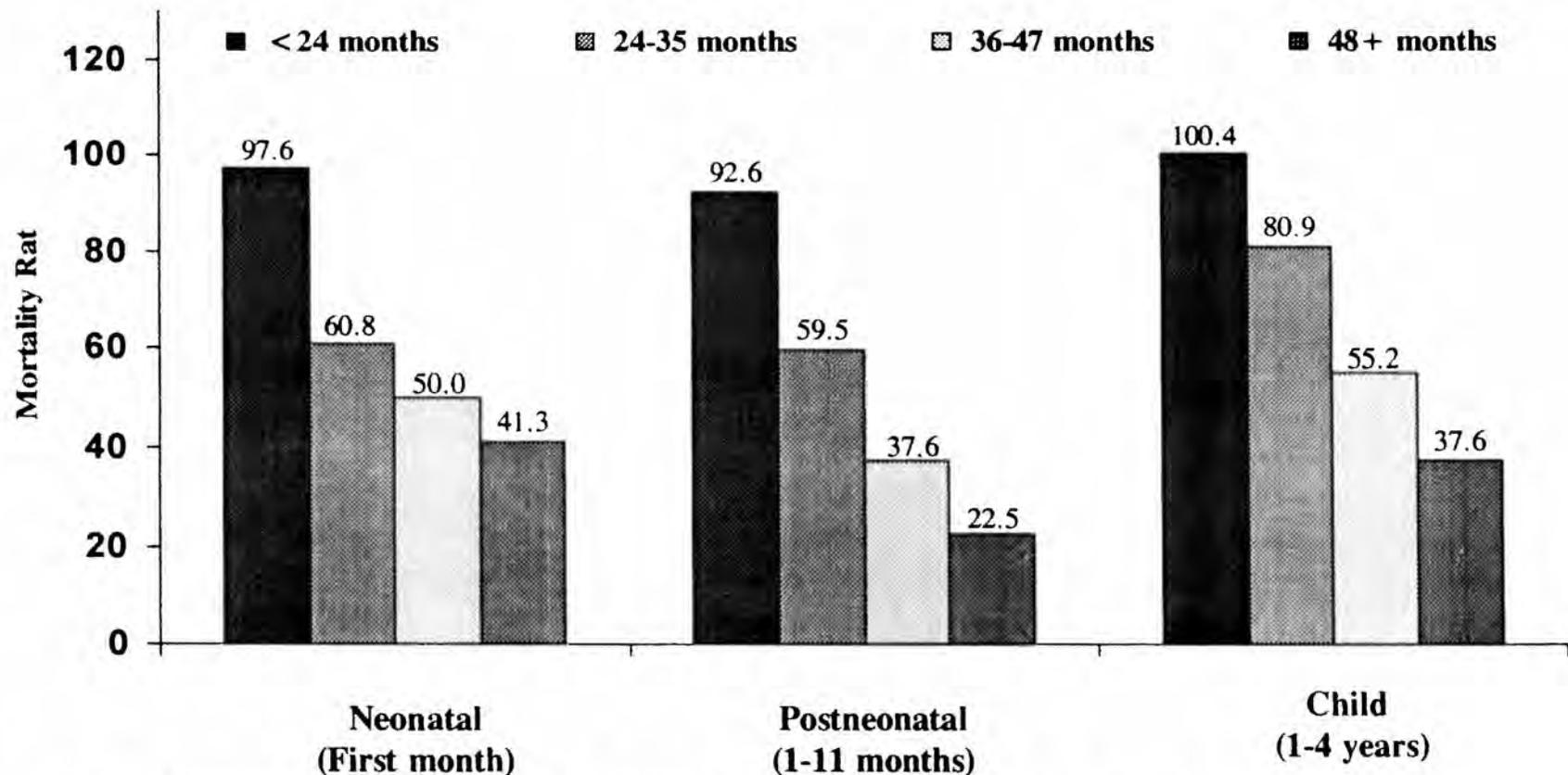


Trends in Fertility in Seven Asian Countries

1970-75 and 1990-96

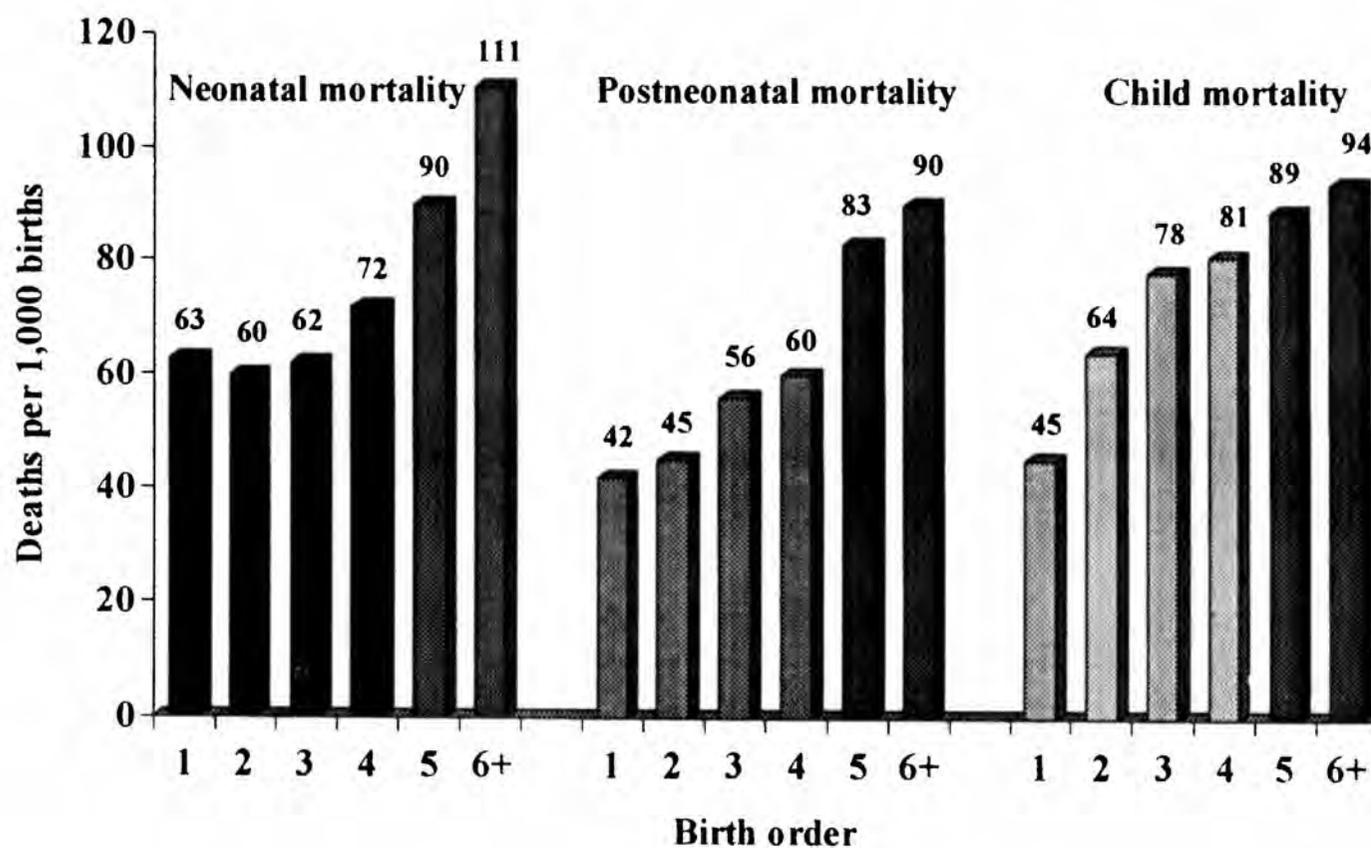


Longer Spacing Between Births Implies Lower Neonatal, Postneonatal and Child Mortality Rates, Nepal, 1996



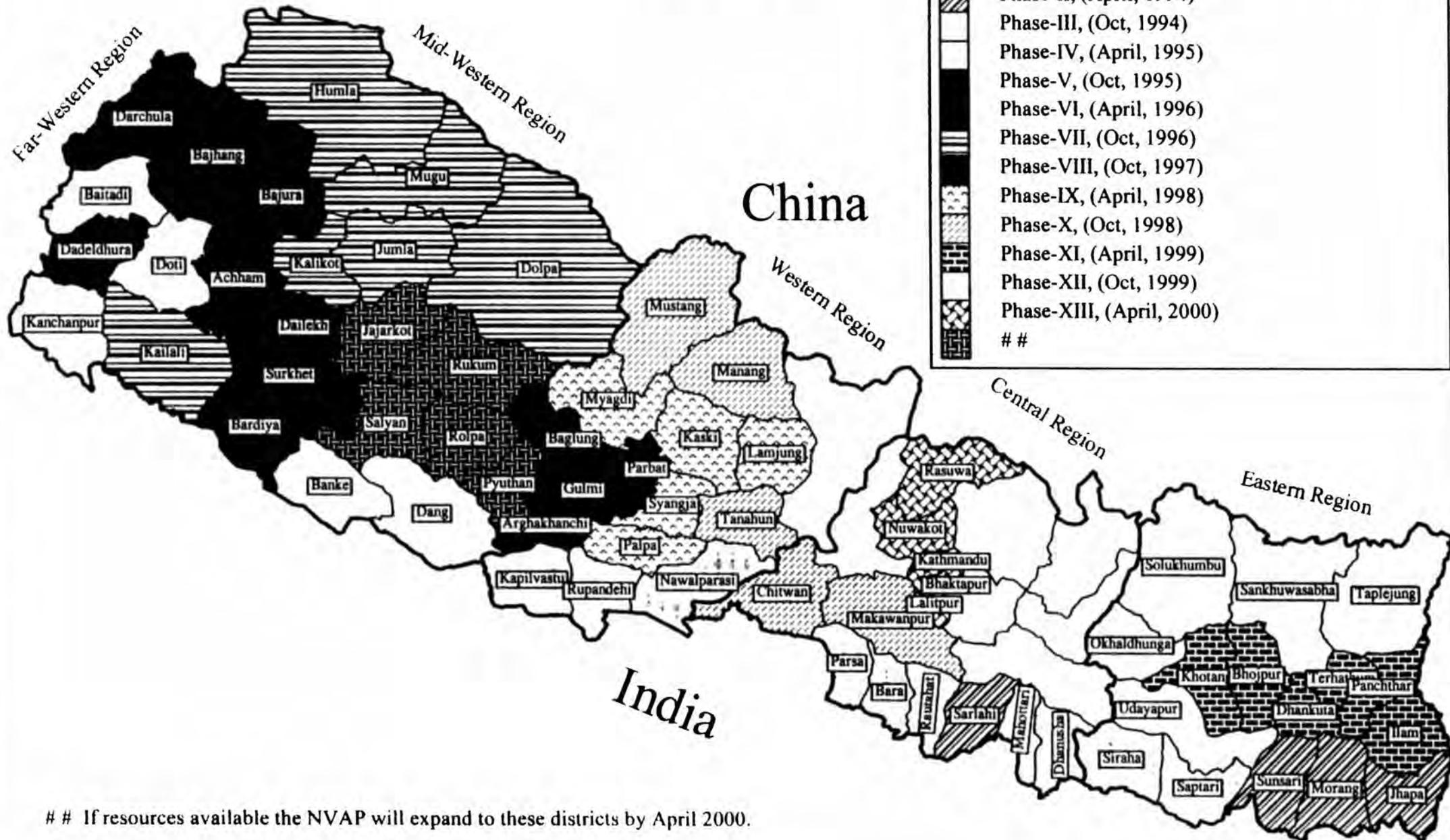
Note: All rates are controlled for the effects of time period, and of demographic and socioeconomic factors. Neonatal, postneonatal and child mortality rates are expressed as deaths per 1000 live births, deaths per 1000 children surviving to one month of age, and deaths per 1000 children surviving to 12 months of age, respectively.

Neonatal, Postneonatal, and Child Mortality for All Children born to Ever-married Women (15-49) by Birth Order, Nepal 1996

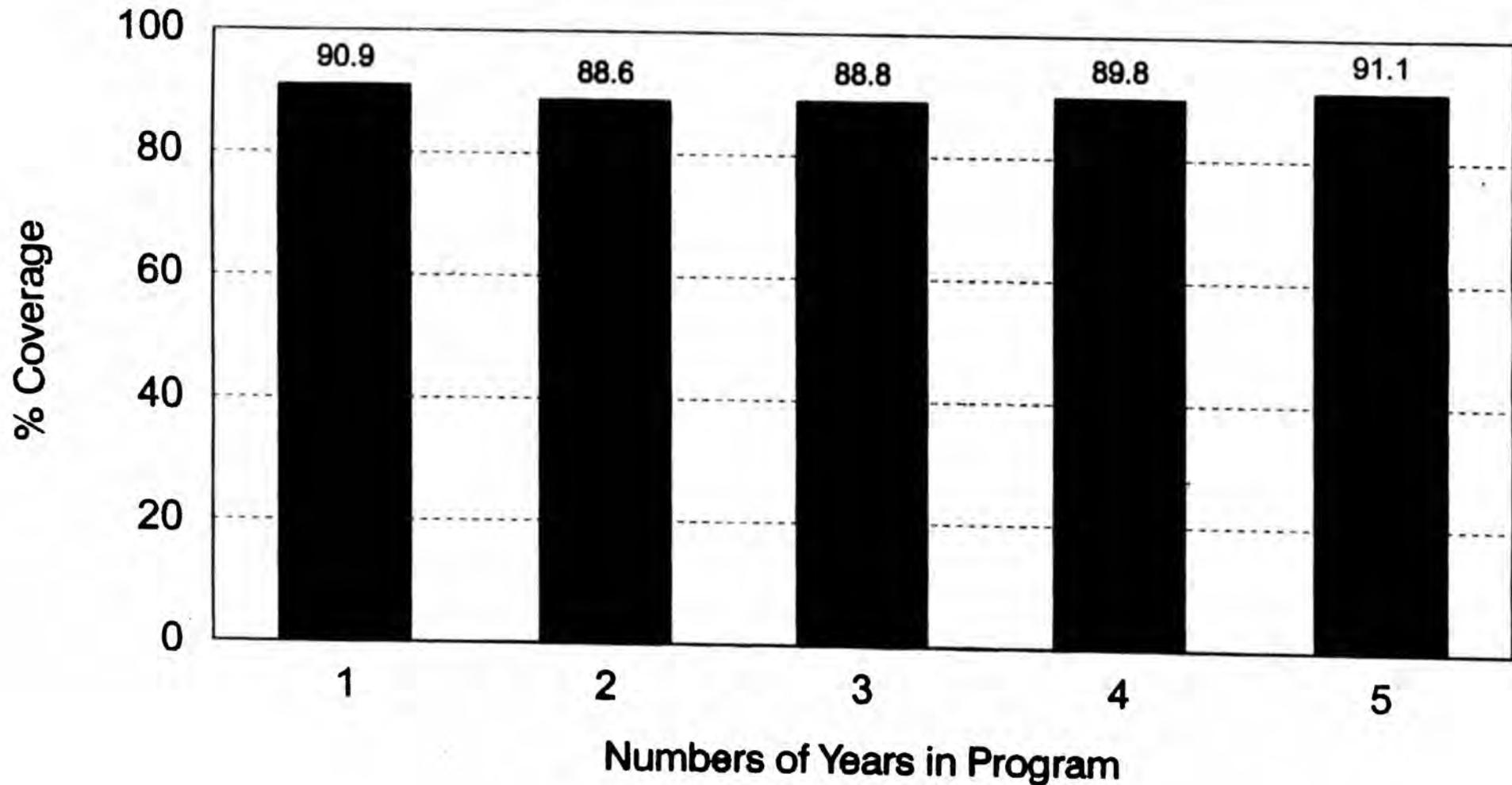


Note: The mortality rates are adjusted for 16 other predictor variables.

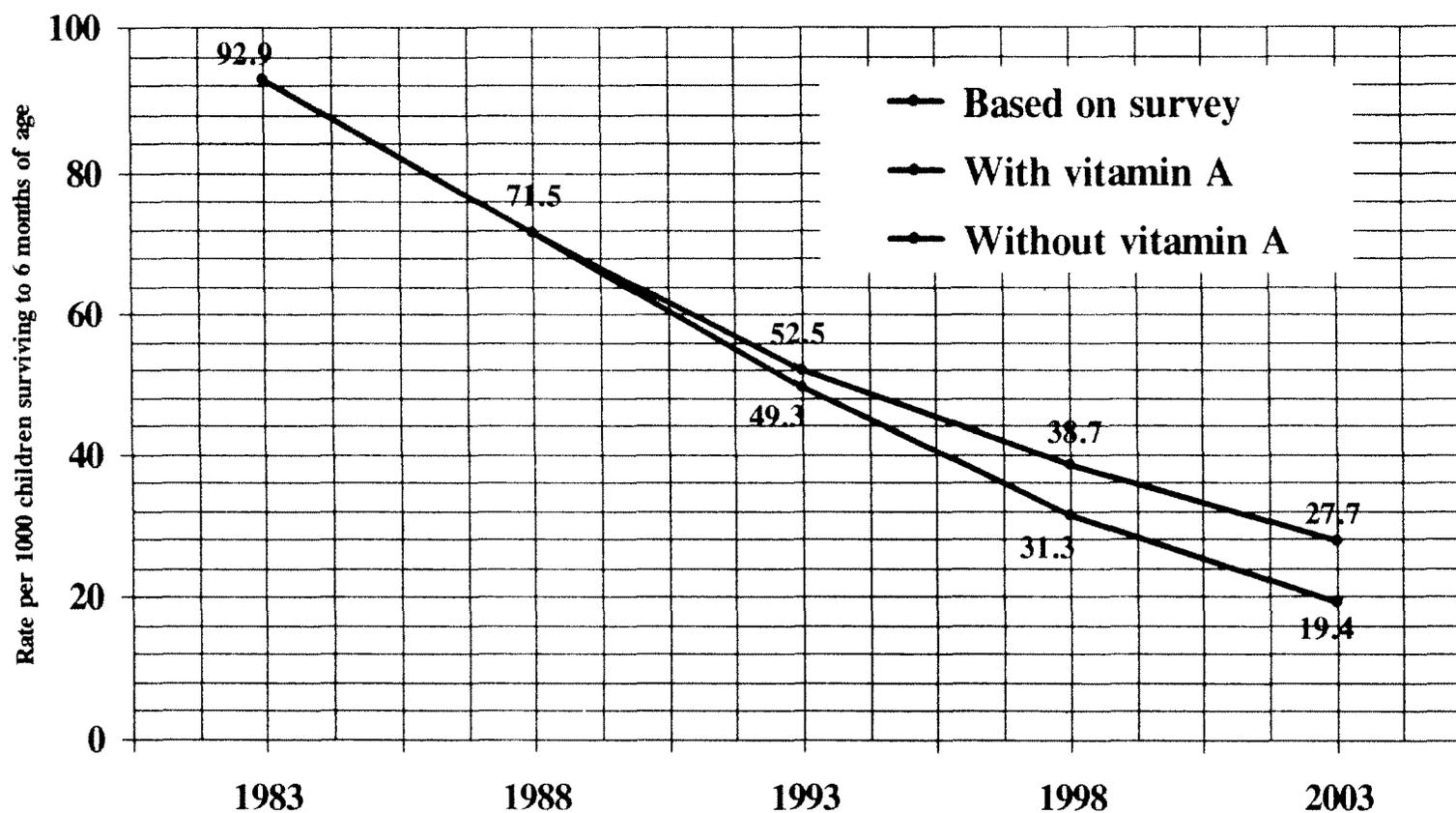
MAP OF VITAMIN A DISTRICTS NEPAL



Capsules Coverage by Number of Years in the Program

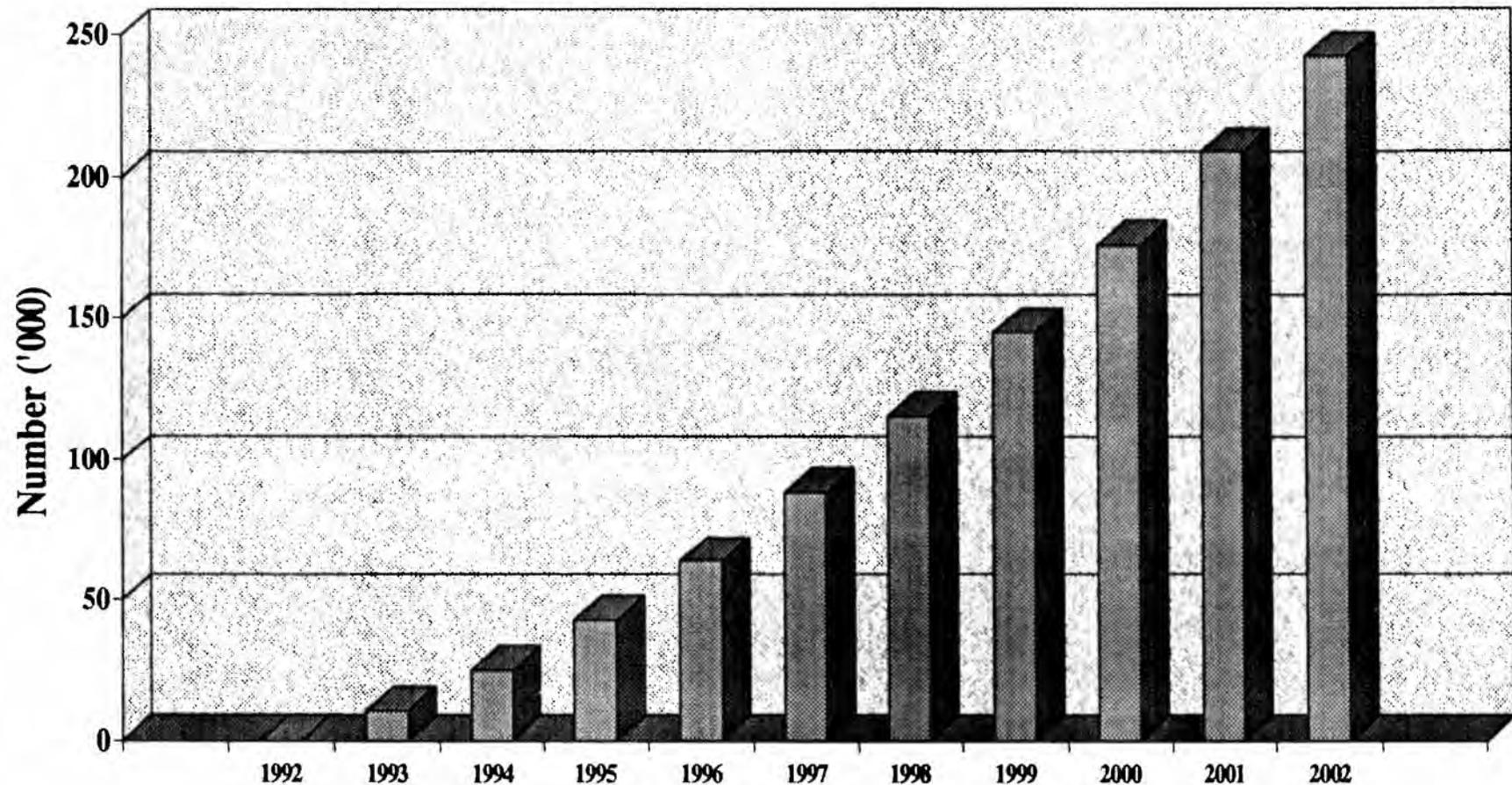


Mortality Rates among Children 6 up to 60 Months of Age With and Without the Vitamin A Program, Nepal



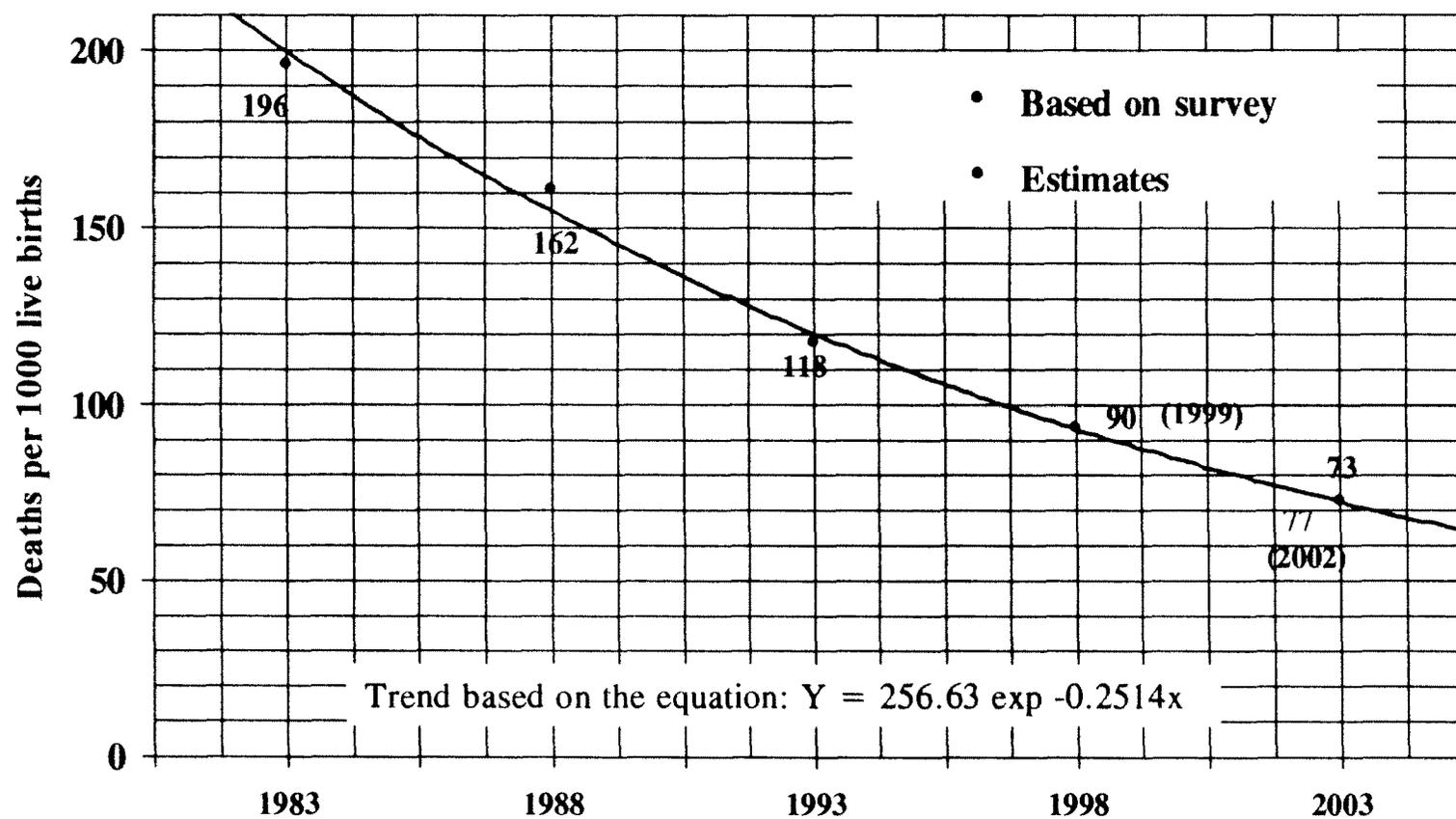
Projected rates are based on the assumption of a decline in mortality (among children 6 up to 60 months of age) of 2.75 points per annum (in the absence of the vitamin A program).

Cumulative Number of Deaths (among children 6 up to 60 months of age) Averted by the Vitamin A Program, 1992-2002

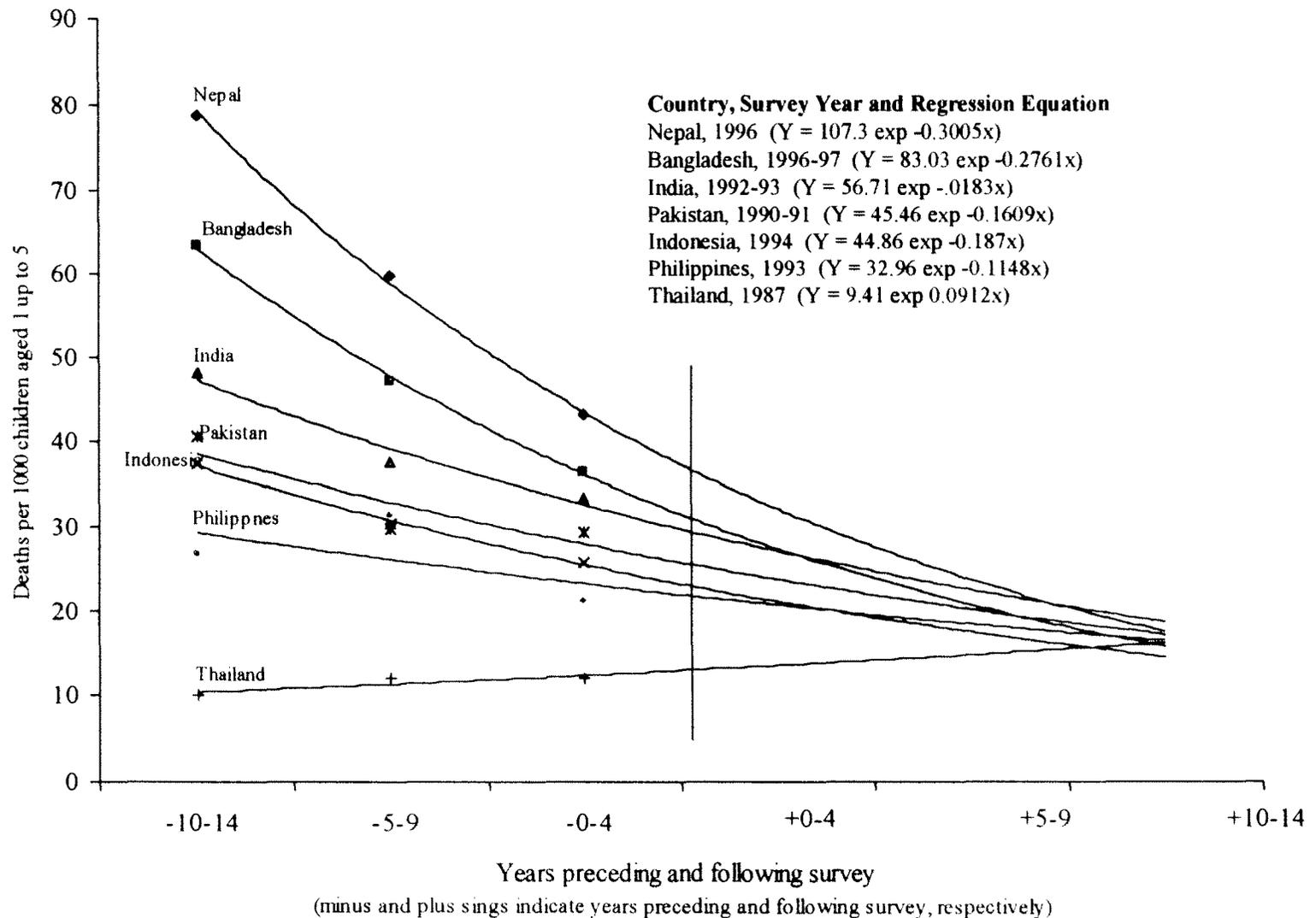


Deaths averted estimates are based on the assumption of a decline in mortality (among children 6 up to 60 months of age) of 2.75 points per annum (in the absence of the vitamin A program).

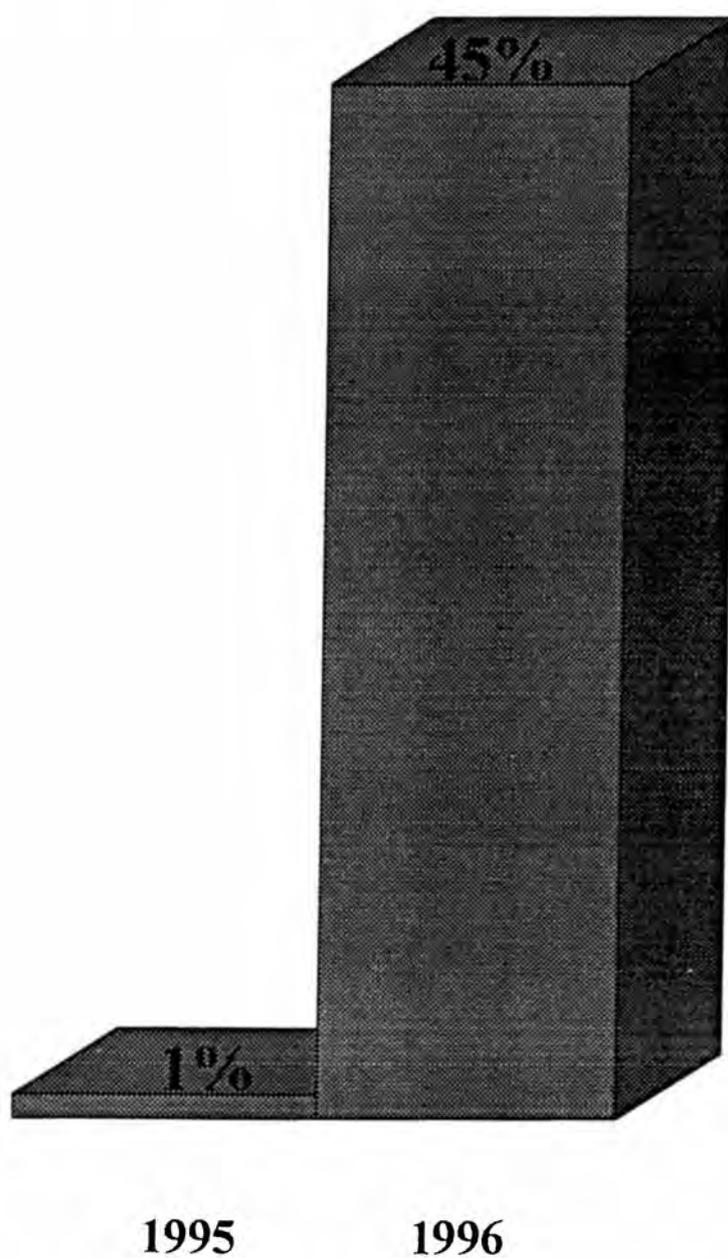
Trend in Under-Five Mortality, Nepal



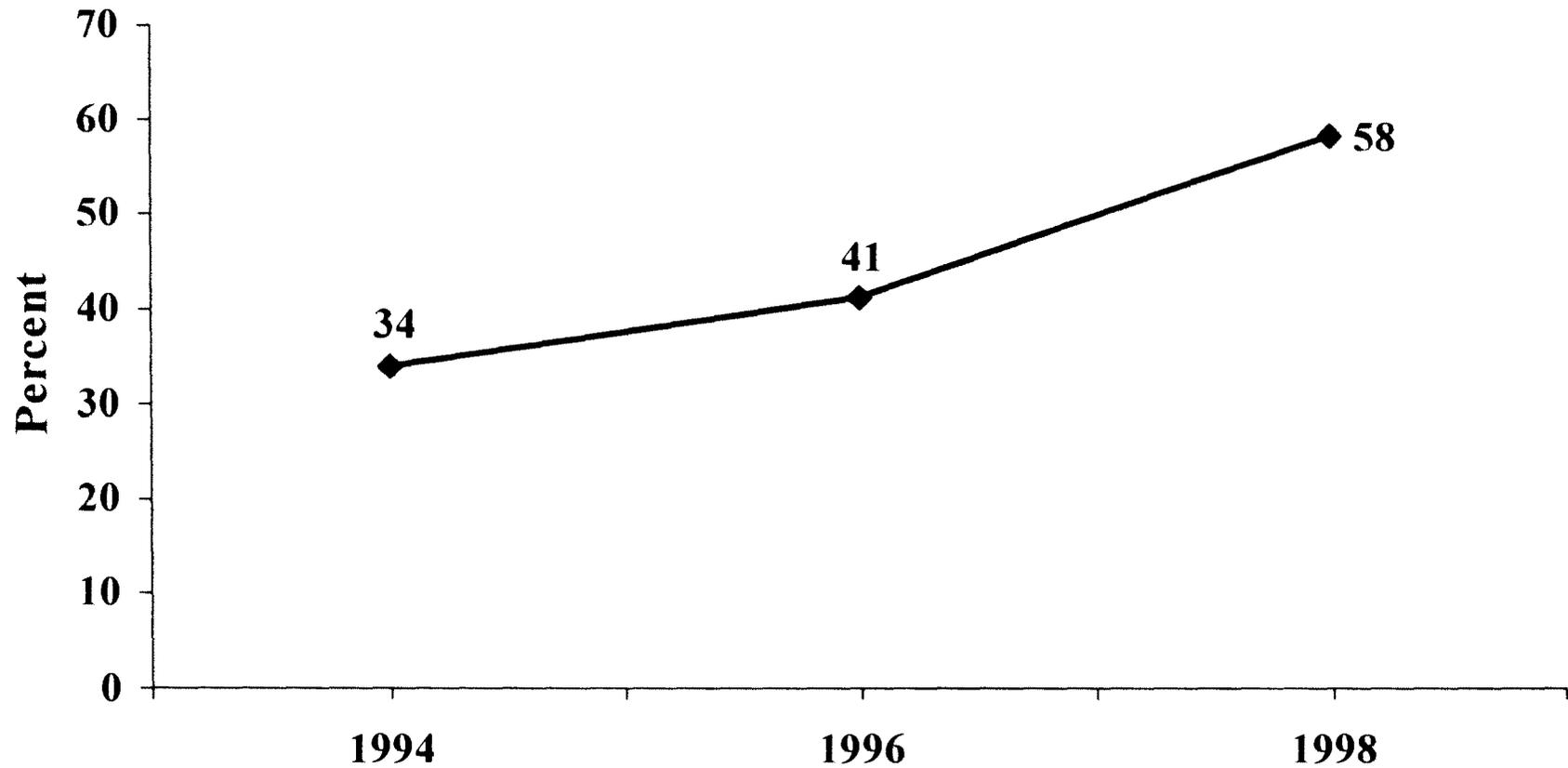
Trends in Child Mortality in Seven Asian Countries



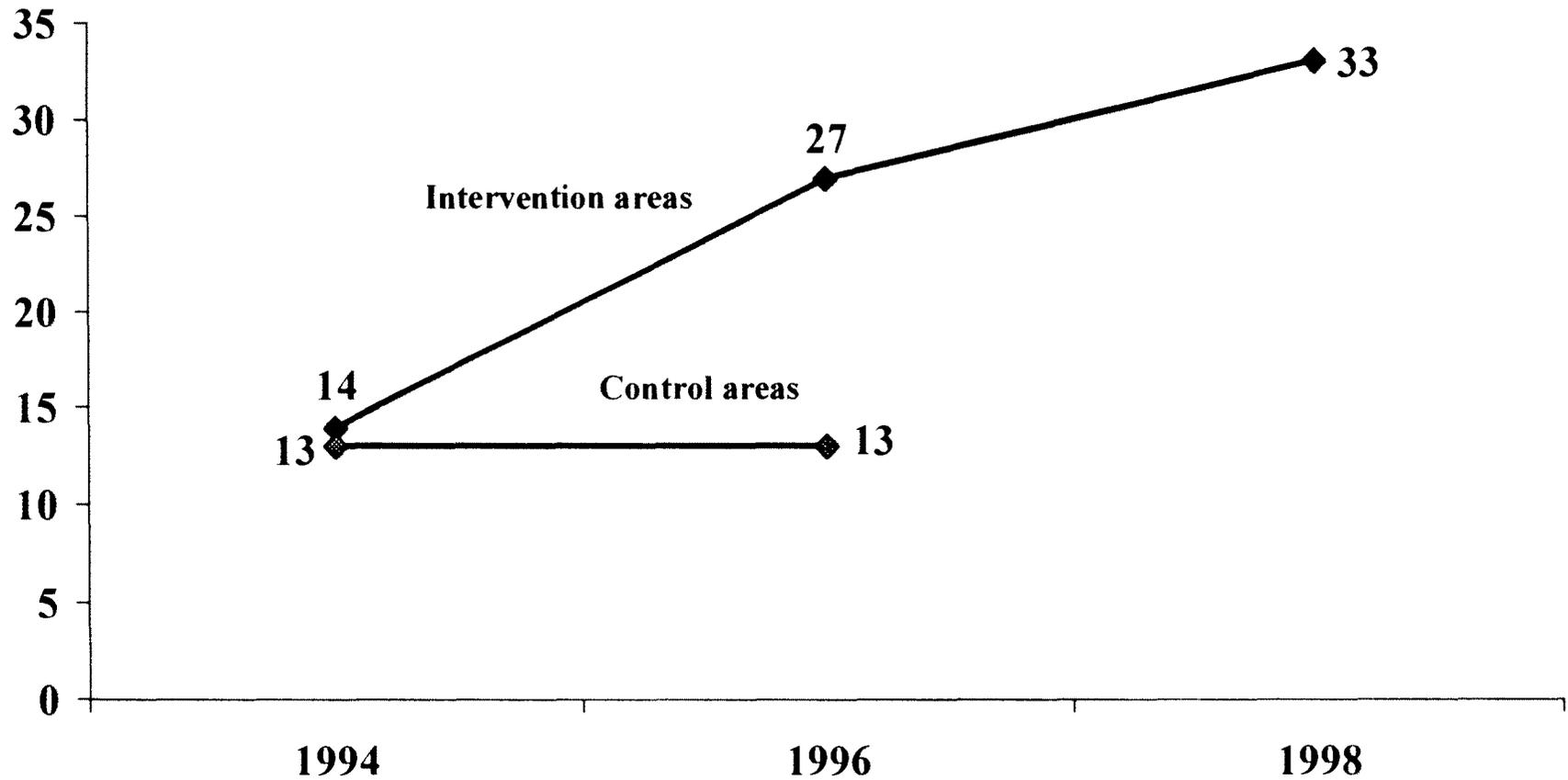
Improved Behavior of Chemists/Drug Sellers in Treatment of Urethral Discharge



Clients of CSWs (in Target Areas) Reporting Condom Use in the Last Sexual Activity, 1994 - 1998



Consistent Condom Use by Female CSWs (%) with All Clients in Target Areas, 1994-1998



AN ISSUE NEEDING IMMEDIATE ATTENTION

- ◆ **Vector Borne Disease Research
and Training Center (VBDTC)**

Establishment of Development Board

U.S. Congressional Mandate Tiahrt Amendment

- ◆ **No quotas or numerical targets**
- ◆ **No incentives or financial rewards**
 - **Family planning acceptors**
 - **Service providers**
- ◆ **Comprehensible information**

SOME ISSUES AND CHALLENGES

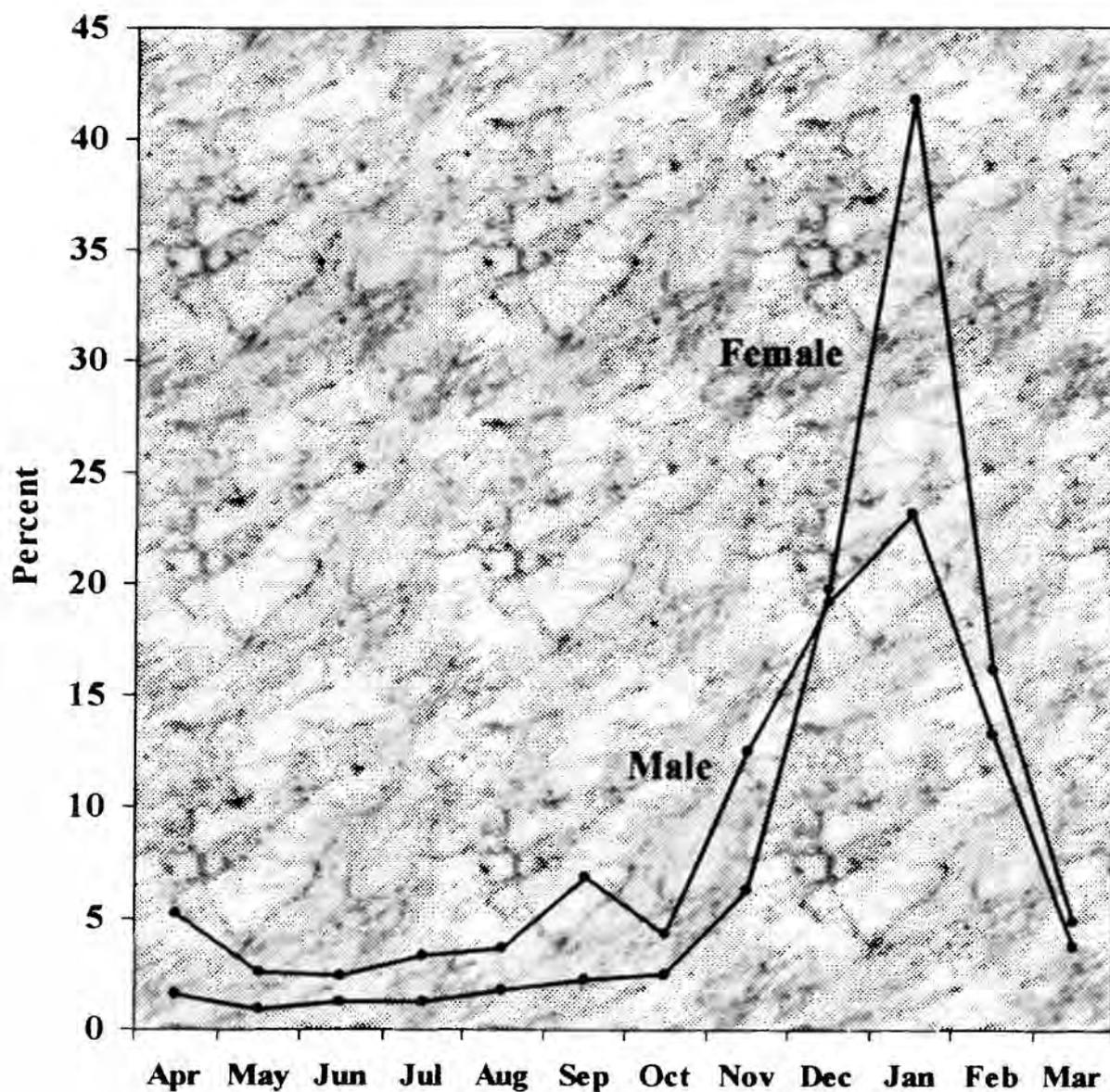
- ◆ **Program management**

[Too frequent and too many transfers of trained personnel and vacancies, irregular monitoring & supervision, weak decentralization]

- ◆ **Meeting the unmet need for family planning, maternal/child health, STI and infectious disease services**

[seasonality of sterilization services]

Seasonality of Male and Female Sterilization Nepal



SOME ISSUES AND CHALLENGES

(cont'd)

- ◆ **Coordination & collaboration**
 - **MOH-donors/international organizations**
 - **MOH-INGOs/NGOs**

*[overlaps and gaps in service provision,
application of lessons learned]*

- ◆ **Sustainability and need for cost recovery**

[commodities and services]

INNOVATIVE MODEL PROGRAM ACTIVITIES

- **Vitamin A**
- **Infectious diseases**
- **Pneumonia treatment (ARI)**
- **Distance education for MOH rural staff**
- **Depo-Provera through pharmacies and VHWs**
- **Contraceptive Retail Sales Company's sale of commodities (including CHDK) & contraceptives**
- **Ambulatory post-abortion care units at selected hospitals**
- **Quality of Care Management Center**
- **HIV/AIDS/STI and infectious diseases cross-border programs**
- **Chemist & drug sellers training for STI treatment**

OPPORTUNITIES

- ◆ **Government of Nepal (GON) is strongly emphasizing the importance of population and health interventions (prime minister level).**
- ◆ **GON policy supports the use of NGOs and PVOs to complement on-going health and family planning efforts.**
- ◆ **GON policy strongly supports decentralization and local governance.**
- ◆ **Private-sector physicians/clinics are showing increased interest in providing support for preventive/public health services.**
- ◆ **GON is using the commercial private sector more to supplement its existing public-sector activities (e.g., private transport companies to move commodities).**

OPPORTUNITIES

(Cont.)

- ◆ **GON has repeatedly acknowledged the HIV/AIDS problem and does not underreport/hide its adverse effects.**
- ◆ **Trafficking of girls and women is acknowledged and frequently reported in the media.**
- ◆ **GON is emphasizing the importance of quality of care (e.g., Quality of Care Management Center).**
- ◆ **There still exists tremendous unmet demand for all types of family planning services (especially VSC) as well as for MCH, STI and infectious disease services throughout Nepal.**
- ◆ **GON has demonstrated a willingness to take the results of research activities (e.g., vitamin A, pneumonia) and move forward to develop appropriate policies and service delivery systems.**