

ZIMBABWE TRIP REPORT

Application of the Family Planning Program Monitoring and Evaluation System (FPPMES) to the National Family Planning Program of Zimbabwe

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TABLE OF CONTENTS

I.	ABSTRACT	1
II.	DEVELOPMENT OF THE FAMILY PLANNING PROGRAM MANAGEMENT AND EVALUATION SYSTEM (FPPMES)	2
III.	BACKGROUND	3
IV.	THE SAMPLE	4
V.	DATA COLLECTION - 1992 BASELINE	5
VI.	DATA COLLECTION - 1993 DATA	6
VII.	PRESENTATION AND APPLICATION OF THE FPPMES	8
VIII.	PROBLEMS AND ISSUES	9
IX.	FINDINGS AND RESULTS - 1992 BASELINE	12
X.	FINDINGS AND RESULTS 1993	16
XI.	NEXT STEPS	18

FIGURES

- 1 Problems and Issues and Their Impact on Prevalence Rates
- 2 Contraceptive Prevalence, 1992
- 3 Condom Prevalence, 1992
- 4 Oral Contraceptive Prevalence, 1992
- 5 Contraceptive Prevalence, 1992-1993
- 6 ZNFPC Contribution to Contraceptive Prevalence

APPENDICES

- 1 Basic Analytical Table, 1992 and 1993
- 2-12 Contraceptive prevalence for the total sample and all Districts and Municipalities based on 1992 and 1993 data.
- 13-15 Contraceptive prevalence for the ZNFPC, total sample and all Districts and municipalities based on 1992 and 1993 data.

I. ABSTRACT

The DHS and other contraceptive prevalence surveys, conducted at five year intervals, have provided Family Planning Program managers with powerful evaluation and planning tools. Less well developed are techniques which managers can routinely use to monitor and evaluate programs between surveys. With increasing access to computers at central and peripheral levels in many countries and the availability of data on the volumes of contraceptives supplied to clients, it is now possible to apply flexible and effective monitoring tools tailored to meet the management demands of rapidly expanding programs.

The Family Planning Program Monitoring and Evaluation System (FPPMES) offers the family planning manager the capability of using contraceptive supply data or client data, or a combination of both to generate monthly estimates of CYP and contraceptive prevalence by method by whatever administrative unit on which the manager chooses to focus (i.e. service delivery point, District, Province, or National level). The format is a custom spreadsheet using Lotus 1-2-3[®], derived from earlier work on the CYPTARGET MODEL (Gorosh, 1991).

The first application of the FPPMES took place in Zimbabwe in October 1993 where the system was applied using 1992 data from eight Districts and two Municipalities to create a family planning program baseline. The Zimbabwe application integrates contraceptive consumption data from Ministry of Health clinics and hospitals, Zimbabwe National Family Planning Council (ZNFPC) clinics and community-based distributors (CBDs), and Municipalities and central hospitals. For 1992, the data were 94% complete. The most important finding is that the Zimbabwe application of the FPPMES to data from 1992 was successful. Overall, and in the separate applications to Districts and Municipalities, the estimated contraceptive prevalence rates derived from the FPPMES closely followed the pattern and level of contraceptive prevalence obtained from the 1988 DHS survey.

The second application of the FPPMES took place in March 1994 using 1993 data from the same eight Districts and two Municipalities to monitor changes from the baseline established in the previous year. A new reporting system, introduced in mid-1993 resulted in some data collection problems requiring some adjustments for incomplete data. Overall, the 1993 data reveal a decline in the CPR from 42 percent in June 1992 and 33 percent in December 1992 to 30 and 29 percent in June and December 1993 respectively. The decline between December 1992 and June and December 1993 appears to be attributable entirely to the declines in the two Municipalities of Harare and Bulawayo (over represented in the sample), as CPRs in the eight Districts either remained the same or showed slight increases over the December 1992 CPR. The condom use contribution to the 1993 CPR declined (consistent with the reported 35% decrease in condoms supplied during the year) and longer term more effective methods are gaining a "visible" share of the CPR in both Municipalities and some of the districts (due to the increased use of injectable contraception and inclusion of pre-1992 sterilizations performed in Harare and Bulawayo). Finally, the 1993 findings must be taken in the context of the introduction in late 1992 of new or increased charges for contraceptives

and the continuing inability to collect accurate data on private sector family planning services.

The second application of the FPPMES also included a separate analysis of the ZNFPC contribution to the CPR. This application demonstrated that the ZNFPC provided the majority of contraception in the rural areas with as much as 75% of the total contraceptive prevalence in some Districts.

In the future, the system will continue to be used to track contraceptive prevalence with particular emphasis on documenting an anticipated shift from dependence on oral contraceptives and condoms, toward a more diversified method mix and greater use of more effective and long term and permanent methods. The FPPMES has been installed at the ZNFPC and its application in Zimbabwe is ongoing and will be expanded to include applications at the district level. Data will be collected semi-annually over the next several years, correspondence with the 1984 DHS findings will be analyzed, and the feasibility will be tested of generalizing from a sample of District and Municipal summaries to develop a sentinel surveillance system for monitoring National trends.

The Zimbabwe application, to date, supports the utility of the FPPMES. Additional applications in other countries are anticipated in the future.

II. DEVELOPMENT OF THE FAMILY PLANNING PROGRAM MANAGEMENT AND EVALUATION SYSTEM (FPPMES)

The Family Planning Program Monitoring and Evaluation System (FPPMES) was developed in response to a request from the ZNFPC and USAID/HARARE to JSI/SEATS/FPLM to design an approach for family planning program managers and policy makers to track National, Provincial, District, and service delivery point performance on key indicators, in between the major surveys now used to evaluate program accomplishments and to document contraceptive prevalence. The FPPMES is derived from the CYPTARGET Model (Gorosh, 1991) which was developed to assist family planning program managers to determine alternative paths to achieving demographic targets over a five-year period. The CYPTARGET MODEL enables the manager to reconcile the annual targets derived from application of the TARGET model (Bongaarts and Stover, 1986) with the reality of programmatic and contextual opportunities and constraints.

The FPPMES retains much of the logic and approaches used in the CYPTARGET Model. The FPPMES is presented as a customized spreadsheet (using LOTUS123R3) to facilitate easy and widespread field use. The model is driven by data that are routinely collected in family planning management information systems. The model is programmed to use standard values for CYP conversion factors and contraceptive prevalence estimates; however, where program-specific data suggest other conversion factors, these are easily substituted for the standard values. The model is applicable to programs that combine a variety of service

delivery approaches; it may be used for individual hospital-based, clinic-based, community-based, social marketing and commercial systems or it may be applied in the aggregate for management of local, national, and regional programs. The model is highly visual, making extensive use of tables and graphics.

The FPPMES is designed to use monthly contraceptive supply data over a five-year period as the basic unit of input to the system. CYP conversion factors, average quantities of resupply methods (pills, condoms, and foaming tablets) given to clients, and estimates of the number of women of reproductive age in the area are also entered into the system. Formulas created and tested during the development of the CYPTARGET MODEL are applied to produce the following tables and graphs:

1. Contraceptive methods supplied by month and year
2. Clients by methods by month and year
3. CYP achievement by method by month and year
4. CYP prevalence by method at six month intervals for ten years
5. Contraceptive prevalence rate by method at six month intervals for ten years
6. Mix of oral contraceptive supplied by month and year.

This paper includes a full description of the FPPMES as it was applied in Zimbabwe using data from 1992 and 1993. The basic table and accompanying graphs for the Zimbabwe national summary and graphs for all Districts and Municipalities analyzed are included in the appendix. A companion paper is available (Gorosh, et. al. 1993) that provides full documentation of the FPPMES and enough of a "user's manual" to enable a competent LOTUS123 user to apply the system.

III. BACKGROUND

With a current fertility rate of 5.3 and population growth rate of 3.1 percent, Zimbabwe's population of 10,500,000 will double in just 22 years - if these current trends in growth continue. These factors will also contribute to diminishing the prospect of substantive increases in per capita incomes, jobs, and economic growth. The Government of Zimbabwe (GOZ) recognizes the negative impact that rapid population growth has on the economic and social development of its country, and consequently has placed population on the nation's list of development priorities.

In support of the family planning program the GOZ created the Zimbabwe National Family Planning Council (ZNFPC), a parastatal organization under the Ministry of Health (MOH). The ZNFPC is the lead organization for coordinating the national family planning program and has successfully implemented a broad spectrum of high quality family planning activities supported by a comprehensive infrastructure of technical expertise. The ZNFPC's program is regarded as the most successful in sub-Saharan Africa; the prevalence rate for modern contraceptives dramatically increased from 14 percent in 1979 to the present estimate of 40

percent. Although this rate is the highest in sub-Saharan Africa it has not had a significant impact on total fertility or population growth. One reason for this is that prevalence is primarily pill based with approximately 86 percent of the modern contraceptive method mix attributable to pill use. This implies that family planning is predominantly for child-spacing and not for limiting family size .

The Zimbabwe family planning program is now at the juncture of new challenges as it moves from its acknowledged success for high contraceptive prevalence to reduction of fertility rates. New strategies focus on increases in contraceptive prevalence through the promotion of long term, more effective, and permanent methods.

ZNFPC's Five Year Strategy (1991-1996) goal is to reduce the total fertility rate to 4.5 by 1996 and to increase the use of modern contraceptives. This is compatible with USAID's Strategic Objective of sustainable decrease in the total fertility rate. With congruent goals, both organizations deemed it appropriate to develop a system that could be used to monitor and evaluate program performance in a continuous manner. Such a system would be used to establish a baseline and track trends and changes in quantities of contraceptives dispensed to users and permanent methods provided to clients. It was felt that while the DHS (the last completed in 1988 and the next scheduled for 1994) provide detailed family planning and demographic data that are important for program evaluation, more frequent monitoring data are required to track the progress in achieving strategic objectives.

USAID requested SEATS (and one of its sub-contractors, the Center for Population and Family Health (CPFH) of Columbia University) and FPLM to collaborate with the ZNFPC in collecting data; developing, testing, and installing the new system; establishing the 1992 baseline; and preparing plans for the continued operation of the system through 1996. Representatives from these organizations established a working group and developed a strategy for data collection.

IV. THE SAMPLE

In weighing various approaches to developing the FPPMES data base, the merits of using a sentinel surveillance approach were reviewed. Experience in sentinel surveillance in the family planning field is limited except as a component of larger MCH sentinel systems. Some sentinel surveillance work has been initiated in family planning logistics (Wasek and Halpert 1989)), although on a pilot basis. Given the limitations of national data collection systems, development of surveillance tools which respond to needs for family planning program performance monitoring and logistics management are long overdue.

Issues of sampling of service delivery sites were explored. The problems of selecting sentinel sites are well known -- difficulties in defining geographical catchment areas and their populations, selection biases favoring well performing sites, incomplete reporting and difficulties in generalizing findings are among a few of these.

To minimize such issues and greatly increase the population coverage of the sampling units, the District/Municipality was chosen as the sampling unit. Out of 56 Districts and two major Municipalities in the eight provinces of Zimbabwe, 8 Districts and the two Municipalities were selected.

At the request of the ZNFPC, one District per province was randomly selected. This approach was used to assure geographic spread, to enable involvement of all MOH and ZNFPC provincial FP/MCH managers, and to provide a proxy against which to compare District analyses with provincial level DHS findings (District level DHS findings are not analyzed due to sample size limitations).

During data collection two Districts (Bindura and Masvingo) were found unsuitable due to poor data management. Alternative Districts were selected. As cited above, elimination of poorly performing sites is a common sampling bias in sentinel systems.

Present 1992 census reports are preliminary and do not permit in depth review of demographic and socioeconomic differentials between Districts. When such census data become available, they will be combined with family planning data in order to analyze and establish the representativeness of the sample Districts in relation to the province.

The sample covers 28 percent of the total population of Zimbabwe (CSO 1992). Selection of both Municipalities represents a sizeable oversampling of the urban sector (63 percent urban, 37 percent rural) relative to national urban\rural proportions of approximately 30 percent and 70 percent respectively.

The oversampling achieves multiple purposes: greatly increasing the total sample size through adding a minimal number of additional sampling units; capturing high volume service delivery points; and, providing a larger baseline for monitoring increases in long-term and permanent methods, which are anticipated to expand at a faster rate and magnitude in urban areas.

V. DATA COLLECTION - 1992 BASELINE

The Ministry of Health and ZNFPC facilities use different formats for recording acceptors and visits by method, precluding the analysis of client data. However, both systems record contraceptive supplies dispensed to users, which was selected as the variable for study, and on which client, CYP and CPR estimates could be based. The baseline interval chosen was 1992, against which annual data will be compared 1993-1996.

No central source or system for coordinating family planning data collection has as yet been established in Zimbabwe. Such a system is well within reach given the otherwise well functioning data collection routines and good communications infrastructure. The FPPMES

will provide impetus to the development of an integrated family planning data collection system.

Data sources used in the Zimbabwe application include the MOH at District level for MOH hospitals and clinics, city councils for the Municipality data, and ZNFPC Headquarters for CBD and ZNFPC clinic data. Data on voluntary surgical contraception was acquired through the ZNFPC. Data for central hospitals was obtained from the MOH headquarters, Health Information Unit. Data collection on private sector activity has not yet been established.

A data collection pretesting exercise was carried out in one District to assess data availability and ease of collection. District level annual aggregates were available, however, in the interests of accuracy and completeness, all monthly returns by clinic in the District (Mt. Darwin) were accessed, and commodities dispensed-to-user data captured. A Lotus 1-2-3 spreadsheet was used for data entry on a laptop computer. Given the minimal quantity of data required, data capturing was found to take only a few hours per District. This will be made even easier in subsequent efforts where data will be entered directly into the FPPMES data spreadsheet.

The organization and completeness of the data were found to be good based on the pretest, and the data collection format was adopted and applied in all sample Districts/ Municipalities during September 1993.

A high reporting rate was found in all sample units. A count of missing returns revealed an overall response rate of 94 percent, with individual Districts ranging from 91 to 98 percent compliance in submitting monthly returns.

Issues raised during the data collection exercise included: the need to verify accurate counting of condoms, which are counted in strips of four in MOH facilities and as individual pieces by ZNFPC; the need to obtain missing data; possible double counting of commodities by hospitals supplying other facilities; catchment areas which cross District boundaries; and as previously noted, the lack of a coordinated family planning data collection system.

VI. DATA COLLECTION - 1993 DATA

In February 1994, annual data for 1993 was collected from the baseline Districts and Municipalities using the FPPMES data entry spreadsheet.

At mid-year 1993, a new national health information system (HIS), which aims to integrate data from "vertical" MCH and curative programs, was introduced in Zimbabwe. Consequent changes in formats and recording routines resulted in problems in family planning data completeness and quality. Such problems are common, if not unavoidable in a transitional national HIS.

Some of the recurrent problems observed during the data collection exercise included:

- **Irregularities in counting of commodities**

While no adjustment could be made for errors in counting of commodities, there appeared to be long standing discrepancies in recording of condoms (strips of four versus individual pieces), resulting in a tendency to overestimate actual condoms dispensed. This problem should resolve spontaneously as the new HIS becomes consolidated and individual condoms are recorded consistently.

Another observation was the practice of adding new and revisit clients, and placing the total clients figure in the commodities column. This error results in an underestimate of pill and condom distribution, as most clients receive more than one unit of the commodity. This problem can be corrected through monitoring and supervision.

- **Wide variation in volume and pattern of services within individual sites**

Wide variation in dispensing and recording patterns appeared to be linked to different staff members completing reporting forms at different times at individual sites, pointing to the need for additional training and increased supervision in recording. It is unclear to what extent actual volume of services, as opposed to recording errors, are reflected in the varying patterns of commodity distribution at the service delivery point.

- **Missing data due to absence of forms**

Data completeness for three Districts and two Municipalities was comparable to that of 1992. For the remaining five districts, which fell below the 1992 average reporting level of 94%, estimates were made for missing months, using mean values for total reported months. Subsequent to adjustment, data completeness ranged from 93.4% (Kariba) to 100% (Bulawayo).

- **Duplication of data**

The new HIS form registers MOH and ZNFPC client data separately, but contains a single column for all commodities, precluding disaggregation of MOH and ZNFPC data. Relatively few records were affected by inclusion of both ZNFPC and MOH commodity data, however, this problem is likely to increase in the future, and may necessitate design of alternate strategies for estimating or adjusting commodity data.

- **Lack of a comprehensive system for collecting VSC data and private sector data**

The national HIS and the AVSC monitoring system, tend to capture minilaparotomies only. A comprehensive system, incorporating all sterilization procedures by facility and month, is required to provide an accurate count of this most important method. A modest underestimate of VSC procedures in 1992-1993 is assumed due to this data constraint.

Private sector FP data, which may account for a significant proportion of services in the two municipalities, have not been obtained. Efforts to assess the magnitude and composition of private sector services are required to more accurately reflect prevalence in the urban areas.

Introduction of the new HIS coincided with a relatively unstable period in the Zimbabwe family planning program, following an increase in client fees in late 1992. A significant drop in commodities dispensed to users was observed in November-December 1992, and a flat or declining trend persists through 1993. Some of the levelling/lack of recovery in the latter half of 1993 may be attributable to data problems related to the new HIS, and may have been manifested in a net loss of data. As the new HIS becomes established, recording accuracy and completeness may contribute in some measure to future increased prevalence.

VII. PRESENTATION AND APPLICATION OF THE FPPMES

The FPPMES was applied in Zimbabwe over a two-week period in October-November 1993 and again in March 1994. The system was introduced in a series of three meetings involving the staffs of USAID, ZNFPC, SEATS, and FPLM. As the system was explained several suggestions were made and subsequently incorporated regarding CYP conversion factors, average quantities of resupply methods distributed per client contact, inclusion of NORPLANT use, and developing a separate analysis of the mix of brands of oral contraceptives supplied.

In close collaboration with staff of the ZNFPC's Research and Evaluation Unit, the FPPMES was applied to the data collected from the ten units sampled (8 Districts and 2 Municipalities). In collaboration with staff of the ZNFPC, throughout this period of application, refinements and improvements were made in the FPPMES analysis and data collection spreadsheets, especially in the ease with which information could be transferred from the data to the analysis spreadsheet. Full documentation was completed including a step-by-step orientation to the FPPMES and a "User's Manual" for operating the FPPMES. Installation of the FPPMES was accomplished at both ZNFPC and at JSI's SEATS and FPLM offices in Harare.

Full debriefings were conducted at ZNFPC to present the preliminary findings from the 1992 and 1993 applications of the FPPMES and to plan next steps. In addition to ZNFPC staff, representatives of the following organizations attended the debriefing: Ministry of Health, MACRO (the DHS contractor), USAID/HARARE, JSI/SEATS, and JSI/FPLM.

VIII. PROBLEMS AND ISSUES

During the data collection and analysis stages of the Zimbabwe application of the FPPMES, a number of problems were identified. These are discussed below as are the steps taken to deal with them and the steps required to solve them in the future.

Pre-1992 Contraception

Sterilizations and IUD insertions done before 1992 were not included in the analysis of the 1992 data. Based on conversion factors for these methods, some estimate of sterilizations performed between 1982 and 1991 and IUD's inserted between 1989 and 1991 is needed. These procedures are still conferring contraceptive protection in 1992 and beyond. Similarly, some of the shorter term methods such as pills, condoms, and injectables supplied during the last two to three months of 1991 would be conferring protection during the early months of 1992. No estimates of the continuing impact of pre-1992 contraception were included in the 1992 application. Inclusion of pre-1992 contraception would certainly increase the prevalence estimates. Future refinement of the FPPMES should attempt to determine the impact of pre-1992 contraception.

The 1993 application of the FPPMES incorporated nearly 500 sterilizations performed prior to 1992 in Harare and Bulawayo.

Methods Not Counted

Data collection included some reports of foaming tablet and diaphragm distribution. Since the quantities of these methods were trivial and since the graphics capability of LOTUS123R3 is limited to six variables, it was decided to drop these methods from the analysis. Inclusion of these methods would elevate prevalence in a minor way. Future refinement of the FPPMES could attempt to include these methods, although at present levels of distribution the overall prevalence picture would be unchanged.

Private Sector Data

Data collection did not include private sector supplies, i.e., private physicians, pharmacies, social marketing, etc. This is an important sector and its contraceptive contribution should be

included in the analysis. When 1992 and 1993 data are collected, the data set should be reanalyzed and in the future private sector data should routinely be incorporated in data collection and analysis. This is especially important during the period from late 1992 through early 1994 when new and increased charges for contraceptives were established. It is possible that the declines observed in Harare and Bulawayo in 1993 reflect a shift to private sector sources in response to the introduction of public sector charges.

Accuracy and Consistency of Data

Although the data collection effort confirmed that District level data were more reliable than summary data compiled at Province and National levels, there were a number of problems that arose, including missing data, inconsistent recording of data, and possibilities for double counting.

Although data collection for 1992 was 94% complete, there were some service delivery points missing data for all months of 1992. In the first application of the FPPMES, no attempt was made to adjust for missing data, certainly contributing to under-estimating prevalence. Efforts may be made to contact service delivery points to recover missing data. Alternatively, estimates could be made based on average monthly supplies in the course of the year or on the average of supplies in the two months preceding and the two months following the missing month (the latter approach will reflect any seasonal pattern of contraceptive distribution).

Lack of uniformity of reporting was also observed during data collection in both 1992 and 1993. For example, while the MOH units report the number of strips of four condoms distributed to each client, the ZNFPC clinics and CBDs report the number of individual condoms distributed to each client. These difference were easily accommodated in data analysis; however, uniform recording and reporting would facilitate future analysis. As discussed above, the 1993 application was beset with problems associated with the introduction of a new reporting system in mid-1993, necessitating adjustments for missing data.

The average quantities of resupply methods distributed per client contact is an important component in FPPMES calculations. Averages of three cycles of pills and twenty condoms per client contact were used in 1992. In 1993, these averages were adjusted based on analysis of the ratios of clients to commodities and on reports from MOH facilities. The averages use in 1993 were 2.5 pill cycles and 13 condoms.

Two possibilities for double counting were considered: supplies from a hospital or other large facility to smaller facilities or CBD agents, and the extent to which condoms were supplied to and used by couples also using other contraceptive methods. Regarding supplies from one facility to another, data collection stressed the importance of counting only supplies to clients and this should continue to be emphasized in the future. Regarding the overlap of

condom and other method use, no attempt was made to account for this possibility. Some type of end-use survey of condom users might be useful to document the extent to which condom use overlaps with use of other methods. Alternatively, data from the 1994 DHS may be used to establish the relationship between condom prevalence and condoms distributed in order to develop realistic factors for estimating condom prevalence in the FPPMES.

CYP Conversion Factors

Default conversion factors developed in 1990-1991 were used in the analysis of 1992 data in Zimbabwe. Although a new set of default values is being developed, it would be preferable to use conversion factors that reflect actual contraceptive experience in Zimbabwe.

Women of Reproductive Age (WRA)

The number of women of reproductive age in each unit of analysis is the denominator for calculating the FPPMES estimate of contraceptive prevalence. For both the 1992 and 1993 analyses, WRA were estimated at 21% of the total population of each District. The Central Statistical Office is analyzing 1992 census data and when accurate counts of women of reproductive age in the districts and municipalities become available, they should be incorporated into the analysis.

These problems and issues and their impact on the FPPMES application in Zimbabwe in 1992 are summarized in the following table. Future applications of the FPPMES should strive to resolve these problems and issues in order to develop the best possible basis for estimation.

Figure 1 PROBLEMS AND ISSUES AND THEIR IMPACT ON ESTIMATED CONTRACEPTIVE PREVALENCE RATES

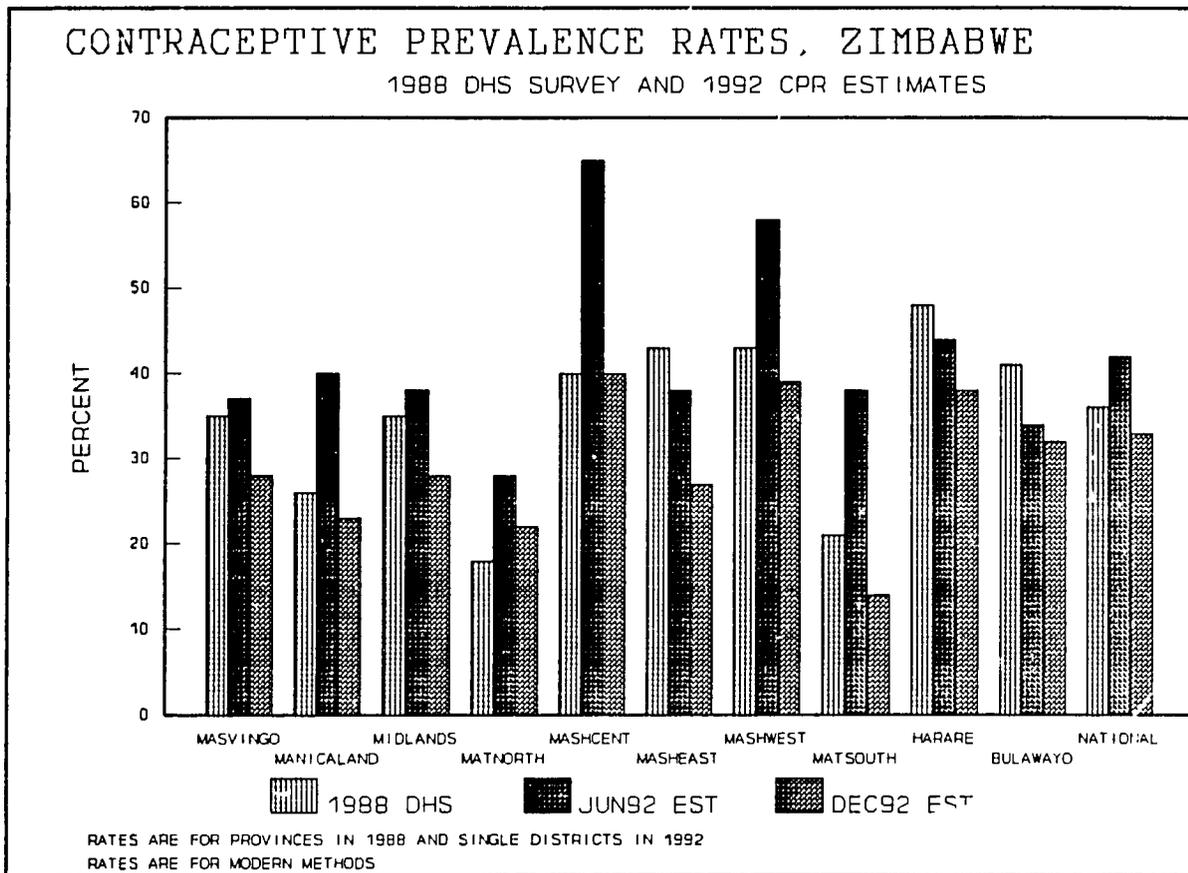
PROBLEM OR ISSUE	IMPACT ON CPR
Pre-1992 Contraception	Increase
Methods not counted	Increase
Private Sector Supply	Increase
Missing Data	Increase
Double Counting	Decrease
Average Quantities	Increase/Decrease
Inconsistent Reporting	Increase/Decrease
CYP Conversion Factors	Increase/Decrease
WRA	Increase/Decrease

IX. FINDINGS AND RESULTS - 1992 BASELINE

The most important overall finding from the 1992 application is that the Zimbabwe application of the FPPMES was successful. The eight Districts and two Municipalities sampled represented 27.7% of the total population of Zimbabwe as well as 27.7% of women of reproductive age. The supply of condoms to the 27.7% sample represented 28.5% of the 34 million condoms distributed in 1992. The supply of oral contraceptives to the sample represented 23.5% of the 8.125 million cycles of pills distributed in 1992 (FPLM, 1993). Overall, and in the separate applications to Districts and Municipalities, the estimated contraceptive prevalence rates derived from the FPPMES (District data) closely followed the pattern and level of contraceptive prevalence obtained from the 1988 DHS survey (Province data).

In the following graph of contraceptive prevalence rates, the overall CPR in 1988 is 36.1% and the June 1992 FPPMES estimate indicates an increase to 42.1%. The estimated rate for December 1992 drops to 33%.

Figure 2 **CONTRACEPTIVE PREVALENCE, 1992**

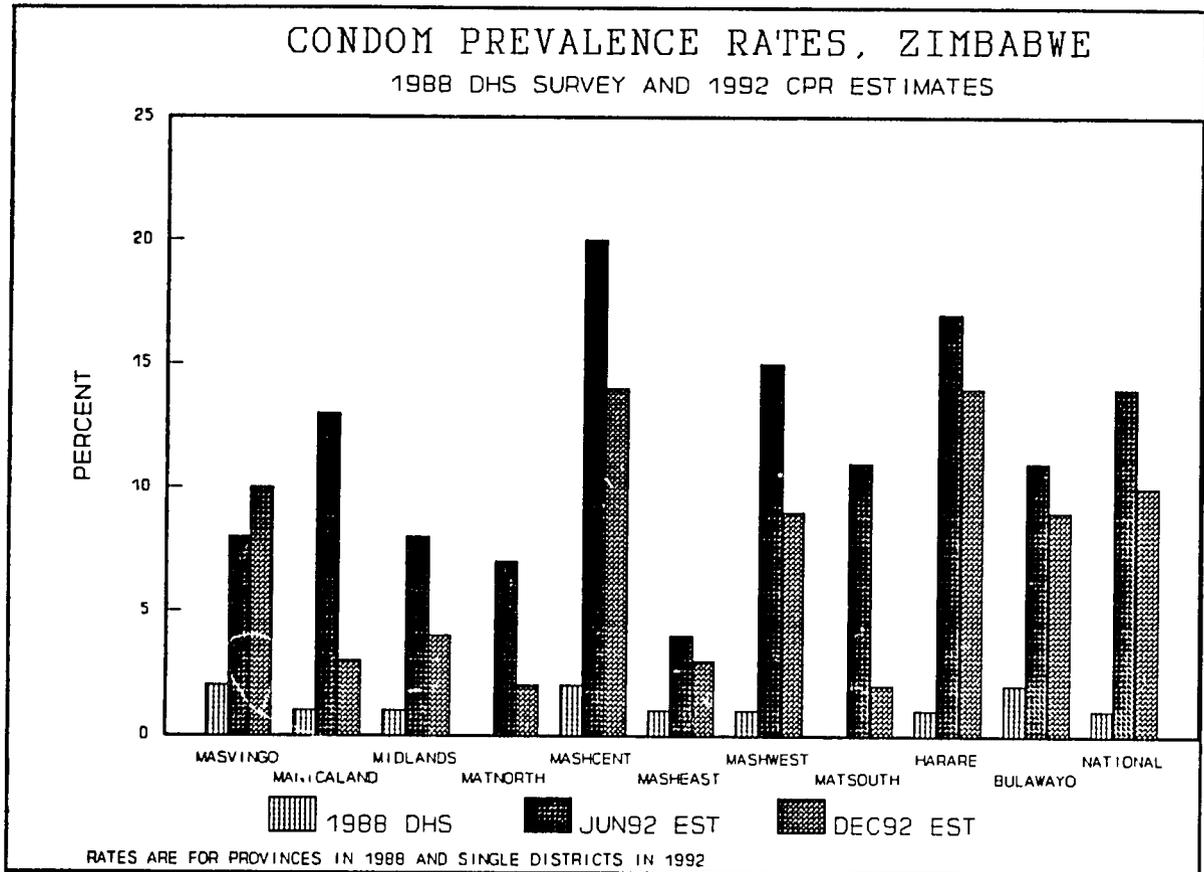


This decline is more than the expected decline that occurs during the last quarter of a year. In fact, it may reflect the downward trend in supplies that accompanied the introduction new or increased charges for contraceptives in November 1992. June to December 1992 declines were greater in the Districts than in the Municipalities, suggesting that the lower income Districts are more sensitive to new or higher charges than are the higher income Municipalities. The December 1992 decline also clearly indicates how prevalence rates are influenced by quantities of resupply methods furnished, particularly in programs which rely heavily on pills and condoms.

These trends persist in the assessment of District and Municipality data. In seven of the eight Districts, estimated contraceptive prevalence rates for June 1992 are higher than the 1988 rates. In Harare and Bulawayo, the June 1992 rates are lower than the 1988 rates, possibly due to the unavailability of private sector data for inclusion in the analysis to date.

In the following graph of condom prevalence rates, the FPPMES analysis reflected the impact of large scale condom distribution in recent years.

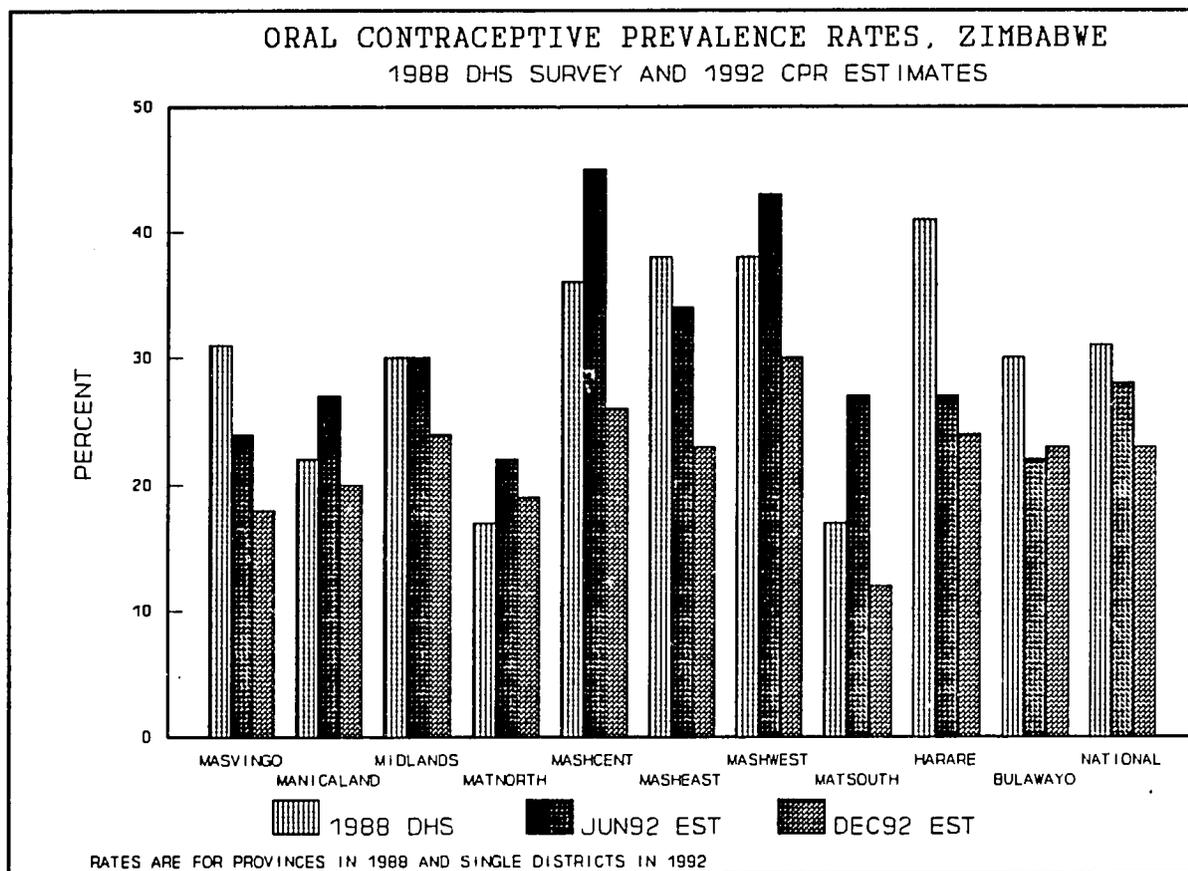
Figure 3 CONDOM PREVALENCE



While condoms represented less than 2% of the 1988 CPR, they accounted for an estimated 14% and 10% of the CPR in June and December 1992, respectively. This pattern is also reflected in the individual District and Municipality analyses.

In the following graph of oral contraceptive prevalence rates, the FPPMES analysis suggests the impact of increased condom distribution on oral contraceptive use. In 1988, oral contraceptives accounted for 31% of the 36.1% overall CPR. By June 1992, the FPPMES CPR estimate for orals was 28% of the overall 42% CPR. This pattern is also reflected in District and Municipality data. Four Districts and both Municipalities showed decreased in pill prevalence between 1988 and 1992, three Districts showed increases, and one District was unchanged.

Figure 4 ORAL CONTRACEPTIVE PREVALENCE



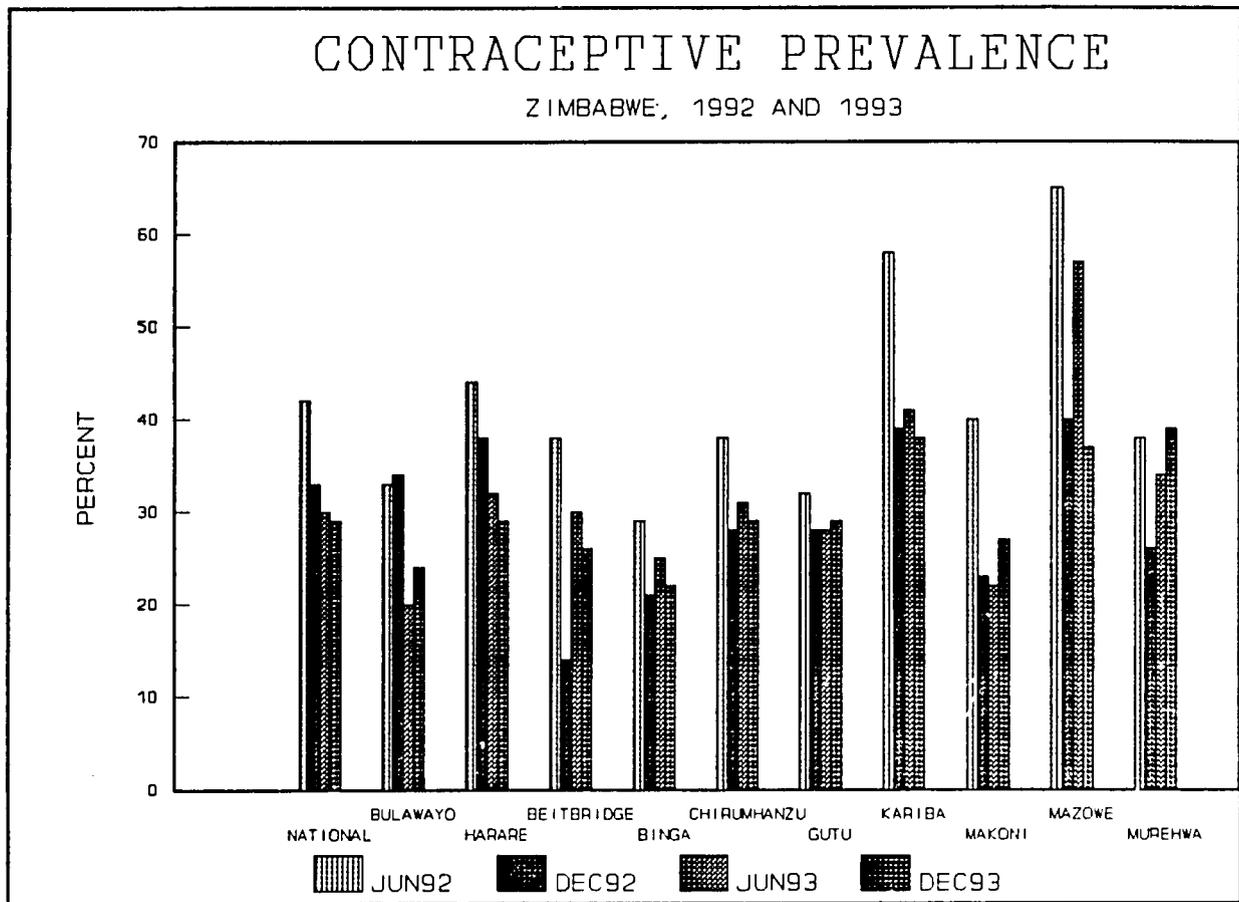
The 1992 FPPMES accurately reflects the low level of use of longer-term more effective methods such as sterilization, implants, IUDs, and injectables. In each of the estimated prevalence graphs in the appendix these methods are barely visible along the x-axes of the graphs as they are dominated by oral contraceptives and condoms.

X. FINDINGS AND RESULTS 1993

The second application of the FPPMES took place in March 1994 using 1993 data from the same eight Districts and two Municipalities to monitor changes from the baseline established in the previous year. A new reporting system, introduced in mid-1993 resulted in some data collection problems requiring some adjustments for incomplete data.

Overall, the 1993 data reveal a decline in the CPR from 33 percent in December 1992 to 30 and 29 percent in June and December 1993 respectively. The overall decline appears to be attributable entirely to the declines in the two (oversampled) Municipalities of Harare and Bulawayo, as CPR's in the eight Districts either remained essentially the same or showed slight increases over the December 1992 CPR. The condom use contribution to the 1993 CPR declined (consistent with the reported 35% decrease in condoms supplied during the year) and longer term more effective methods are gaining a "visible" share of the CPR in both Municipalities and some of the districts (due to the increased use of injectable contraception and inclusion of pre-1992 sterilizations performed in Harare and Bulawayo).

Figure 5 **CONTRACEPTIVE PREVALENCE, 1992-1993**



The 1993 findings must be taken in the context of the introduction in late 1992 of new or increased charges for contraceptives and the continuing inability to collect accurate data on private sector family planning services. It may be hypothesized that the increased charges drove some users from public to private sector sources (especially in the Municipalities) and that incomplete private sector data is in part responsible for the observed urban CPR declines in 1993.

Finally, a separate analysis was conducted to assess the contribution of ZNFPC program to the observed prevalence rates in the total sample, the two Municipalities and the eight Districts. The results of this analysis indicate that the ZNFPC provided the majority of contraception in the rural areas with as much as 75% of the total contraceptive prevalence in some Districts.

XI. NEXT STEPS

Considerable progress has been made toward establishing an in-country capability at the ZNFPC to use the FPPMES to monitor contraceptive prevalence and the introduction of long term, more effective, and permanent methods in Zimbabwe. Next steps include:

- Disseminate the results of the analyses to District and Municipal data collection sites and to other appropriate family planning program officials.
- Consider other management applications of the FPPMES at District and Province levels.
- Refine the data collection and analysis components of the FPPMES, especially the new reporting system to assure ease and accuracy of future data collection.
- Decentralize the application of the FPPMES to selected Districts to promote sustainability and the utility of the methodology for local area monitoring.
- Refine the computational aspects of the FPPMES to assure that it is built on a foundation of Zimbabwe-specific data.
- Prepare a workplan for semi-annual data collection to update the FPPMES. Tentatively, data may be collected in March and September of each year to capture year-end and mid-year dispensed to user data. Continued technical assistance will be required for the September 1994 update.
- Compare the FPPMES analysis and results with the findings of the scheduled 1994 DHS survey to further validate its accuracy and utility. Ideally, the FPPMES will be updated with data through June 1994, which will permit examination of CPR trends at five points in time (June and December of 1992 and 1993 and June 1994). More important, the June 1994 FPPMES estimate will be very close in time to the planned August/September 1994 DHS survey.

As these steps are carried out, the FPPMES will become institutionalized and used and valued as a tool for sentinel site surveillance and improved family planning program management.

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APPENDICES - NATIONAL TABLES AND GRAPHS

- 1 **Basic Analytical Table, 1992 and 1993**

- 2-12 **Contraceptive prevalence for the total sample and all Districts and Municipalities based on 1992 and 1993 data.**

- 13-15 **Contraceptive prevalence for the ZNFPC, total sample and all Districts and Municipalities based on 1992 and 1993 data.**

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COUNTRY ZIMBABWE		DATE 29 OCT 93		COMMENTS NATIONAL ESTIMATE													
PROVINCE		PREP BY	MG	POPWRA 805288													
DISTRICT TOTAL SAMPLE																	
SUPPLY DATA		1992															
METHOD	FACTOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	AVGSUPP		
STER	10 00	607	135	125	142	135	145	190	139	175	12	148	122	2248			
NORP	3 50	2	1	1	0	0	1	14	18	47	40	27	29	180			
IUD	3 50	181	135	143	99	171	148	152	125	122	148	97	123	1824			
NFP	2 00													0			
DEPO	0 25	254	228	232	241	213	305	313	303	344	344	310	487	3552			
BF	0 25													0			
NORS	0 17													0			
PILL	15 00	188543	159353	152992	185874	182300	171747	182707	183182	183325	150942	125455	140353	1908753	3 0		
COND	150 00	867770	783183	885865	803760	808791	841738	902809	849884	953771	788488	828459	578420	9888737	20		
FOAM	150 00													0	20		
CLENTS																	
METHOD	FACTOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	CYPACHMT	AVGSUPP	
STER	10 00	607	135	125	142	135	145	190	139	175	183	148	122	2248	22480		
NORP	3 50	2	1	1	0	0	1	14	18	47	40	27	29	180	830		
IUD	3 50	181	135	143	99	171	148	152	125	122	148	97	123	1824	5684		
NFP	2 00	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
DEPO	0 25	254	228	232	241	213	305	313	303	344	344	310	487	3552	888		
BF	0 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
NORS	0 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
PILL	15 00	58181	53118	50997	55291	54100	57249	54238	54387	61108	50314	41818	48784	635584	127117	3	
COND	150 00	43389	39158	44283	40189	40340	42087	45140	42494	47889	39324	31423	28921	484437	84592	20	
FOAM	150 00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
TOT		100594	92773	95782	95982	94959	99935	100045	97487	109485	90353	73823	78448	1127823	221370		
CYPACHMT																	
METHOD	FACTOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOT	AVGSUPP		
STER	10 00	6070	1350	1250	1420	1350	1450	1900	1390	1750	1830	1480	1220	22480			
NORP	3 50	7	4	4	0	0	4	49	83	185	140	95	102	830			
IUD	3 50	564	473	501	347	599	518	532	438	427	518	340	431	5684			
NFP	2 00	0	0	0	0	0	0	0	0	0	0	0	0	0			
DEPO	0 25	84	57	58	60	53	78	78	78	88	88	78	117	888			
BF	0 25	0	0	0	0	0	0	0	0	0	0	0	0	0			
NORS	0 17	0	0	0	0	0	0	0	0	0	0	0	0	0			
PILL	15 00	11238	10824	10199	11058	10820	11450	10847	10877	12222	10083	8384	9357	127117	3		
COND	150 00	5785	5221	5904	5359	5379	5812	6019	5688	8358	5243	4190	3858	84592	20		
FOAM	150 00	0	0	0	0	0	0	0	0	0	0	0	0	0	20		
TOT		23725	17727	17918	18244	18200	19109	19425	18510	21008	17880	14545	15082	221370			
CYPREV		1-8	1-12	2-8	2-12	3-8	3-12	4-8	4-12	5-8	5-12	6-8	6-12	7-8	7-12	8-8	8-12
STER	1289	2248	3188	4090	4090	4090	4090	4090	4090	4090	4090	4090	4090	4090	4090	4090	4060
NORP	5	180	288	297	297	297	297	292	117	28	0	0	0	0	0	0	0
IUD	857	1824	2282	3054	3054	3054	3054	2197	1430	792	0	0	0	0	0	0	0
NFP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEPO	759	1121	3298	7918	0	0	0	0	0	0	0	0	0	0	0	0	0
BF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILL	198840	138917	135508	137760	0	0	0	0	0	0	0	0	0	0	0	0	0
COND	82428	80344	38753	19149	0	0	0	0	0	0	0	0	0	0	0	0	0
FOAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT	251977	204431	181273	172267	7441	7441	7441	8578	5837	4911	4090	4090	4090	4090	4090	4090	4090
CONTRAPREV																	
MIDYRMWR 805288 00																	
STER	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
NORP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IUD	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
DEPO	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
PILL	28	23	22	23	0	0	0	0	0	0	0	0	0	0	0	0	0
COND	14	10	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0

SUPPLY DATA		1993												TOTAL	AVGSUPP
METHOD	FACTOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
STER	10 00	131	185	188	149	158	153	129	151	141	175	189	118	1844	
NORP	3 50	23	22	19	13	10	1	1	1	0	10	8	11	117	
IUD	3 50	92	109	92	89	135	121	105	80	177	118	204	108	1430	
NFP	2 00													0	
DEPO	0 25	579	651	774	990	1061	1225	1432	1633	3025	2504	2282	3131	19308	
BF	0 25													0	
NORS	0 17													0	
PILL	15 00	134813	123336	131821	133644	130052	142823	148978	137812	149878	125802	139977	147500	1646232	2 5
COND	150 00	558565	417878	400603	362235	343758	391309	137526	171653	188370	153622	197780	185213	3488488	13
FOAM	150 00													0	20

CLENTS														TOTAL CYPACHMT	AVGSUPP
METHOD	FACTOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
STER	10 00	131	185	188	149	158	153	129	151	141	175	189	118	1844	18440
NORP	3 50	23	22	19	13	10	1	1	1	0	10	8	11	117	410
IUD	3 50	92	109	92	89	135	121	105	80	177	118	204	108	1430	5005
NFP	2 00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEPO	0 25	579	651	774	990	1061	1225	1432	1633	3025	2504	2282	3131	19308	4827
BF	0 25	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORS	0 17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PILL	15 00	44938	41112	43940	44548	43351	47608	49859	45871	49959	41934	48659	49187	548744	91457
COND	150 00	27928	20884	20040	18112	17188	19585	6878	8583	8418	7681	9688	9261	174424	15117
FOAM	150 00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOT		73891	82983	85031	83901	81922	88873	58202	58318	81720	52422	59228	61796	745887	135258

CYPACHMT														TOT	AVGSUPP
METHOD	FACTOR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
STER	10 00	1310	1850	1880	1488	1580	1530	1290	1508	1408	1750	1888	1178	18440	
NORP	3 50	81	77	87	48	35	4	4	4	0	35	21	39	410	
IUD	3 50	322	382	322	312	473	424	368	280	620	413	714	378	5005	
NFP	2 00	0	0	0	0	0	0	0	0	0	0	0	0	0	
DEPO	0 25	145	163	193	248	270	306	358	408	758	628	571	783	4827	
BF	0 25	0	0	0	0	0	0	0	0	0	0	0	0	0	
NORS	0 17	0	0	0	0	0	0	0	0	0	0	0	0	0	
PILL	15 00	7490	8852	7323	7425	7225	7935	8278	7845	8328	6889	7778	8194	91457	3
COND	150 00	2420	1810	1737	1570	1490	1696	598	744	730	668	857	803	15117	13
FOAM	150 00	0	0	0	0	0	0	0	0	0	0	0	0	0	20
TOT		11787	11133	11302	11087	11072	11893	10891	10588	11840	10479	11827	11374	135258	

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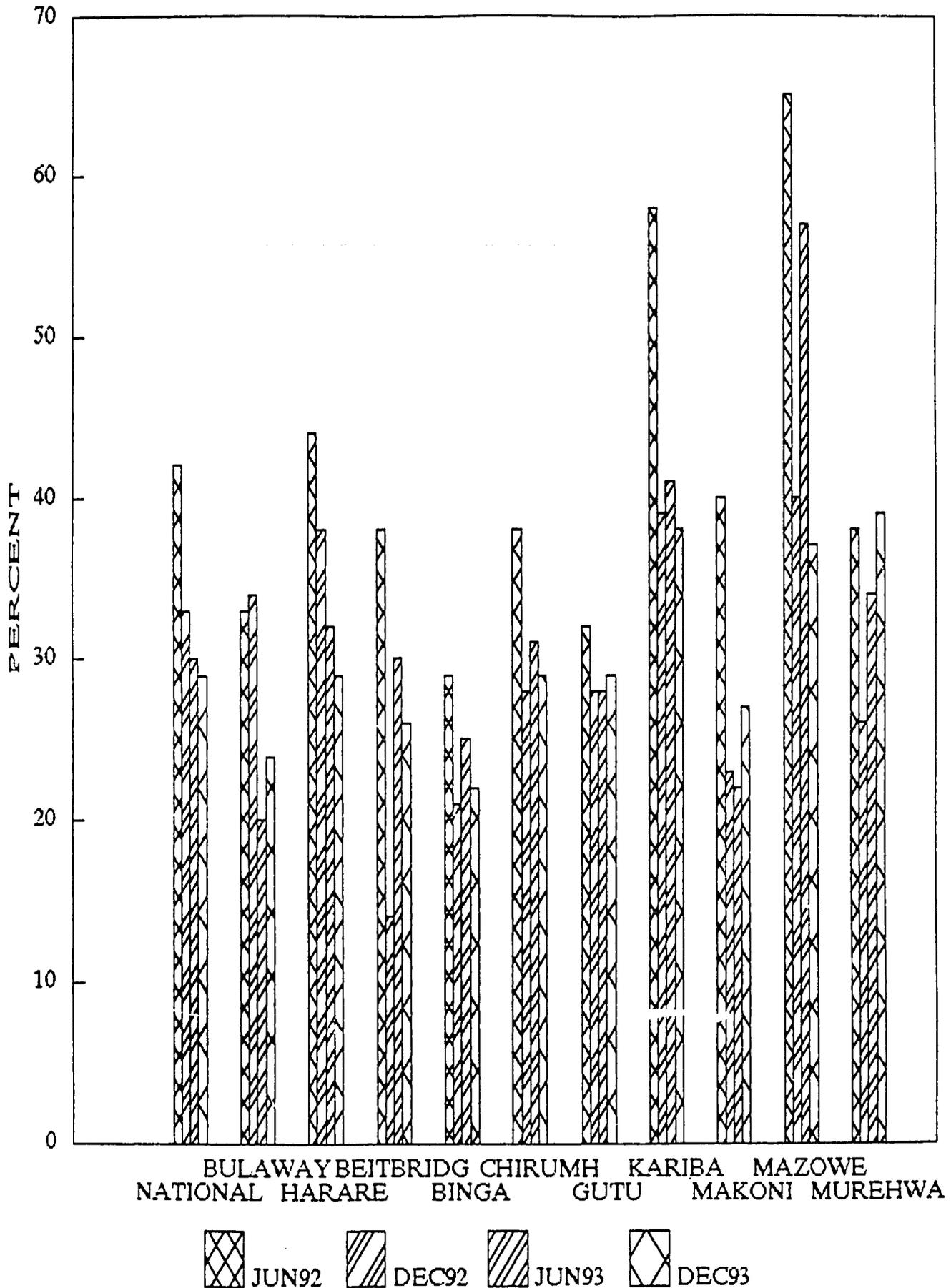
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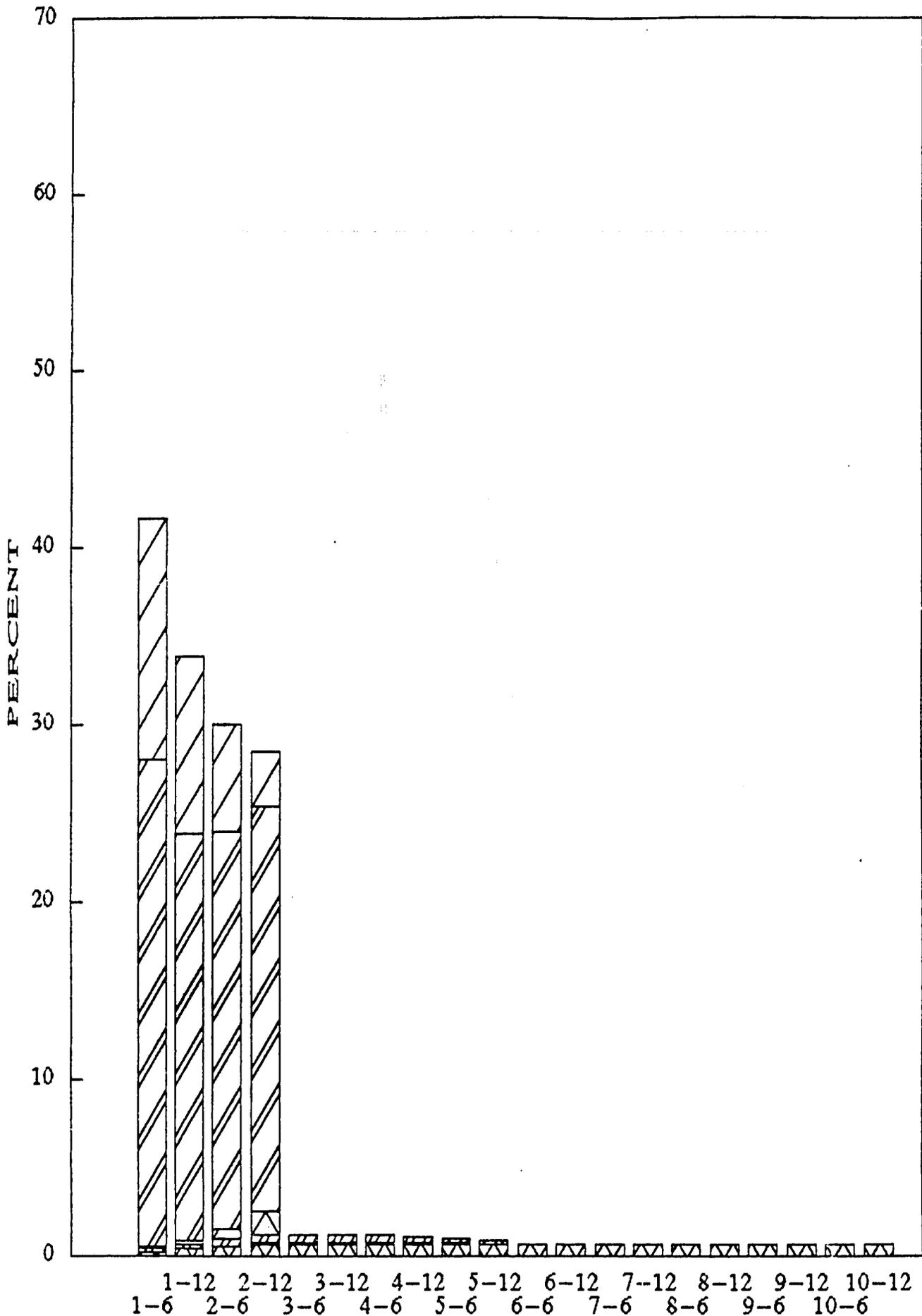
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ZIMBABWE, 1992 AND 1993



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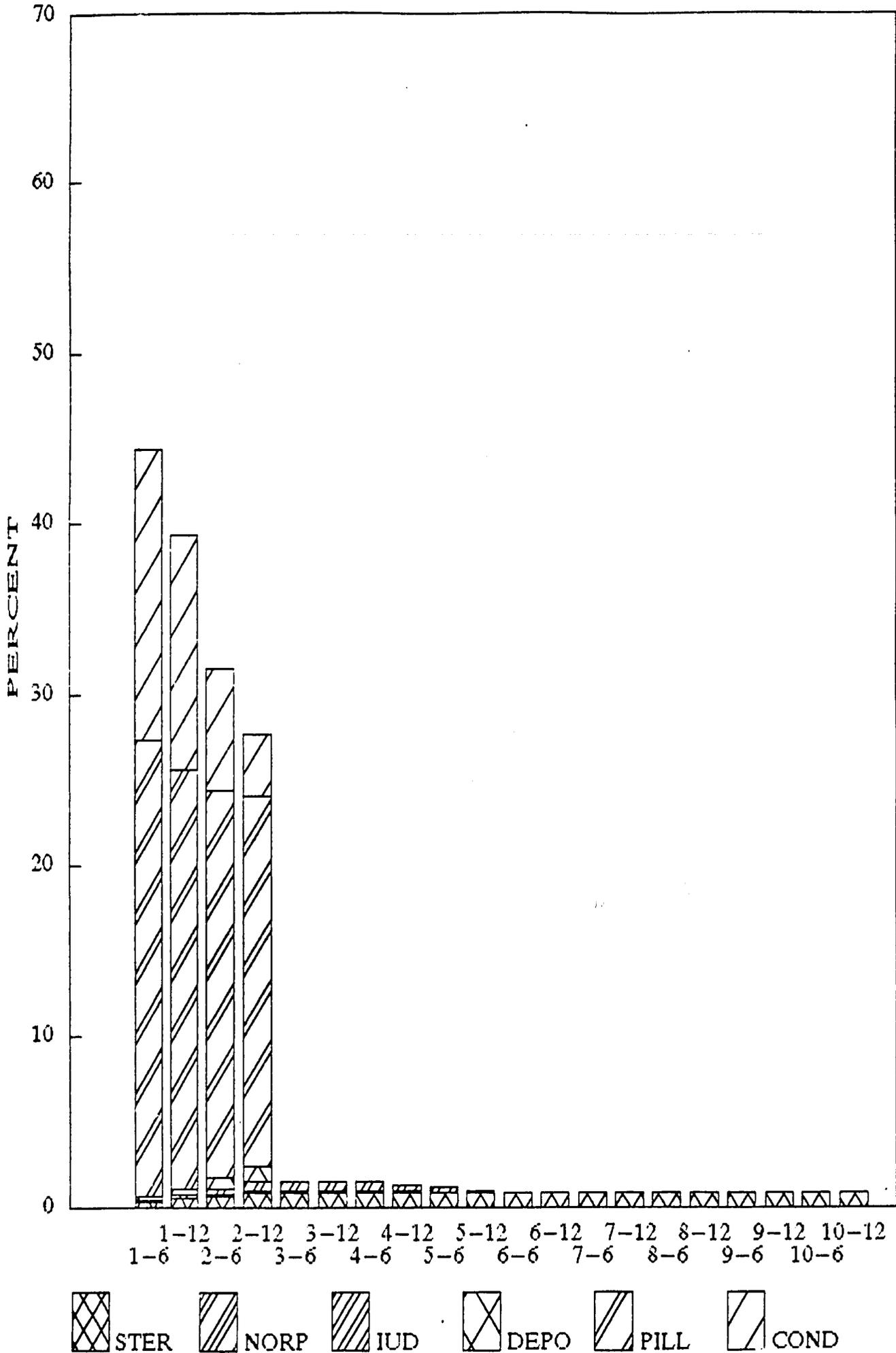
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STER
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 IUD
 DEBO
 PILL
 COND

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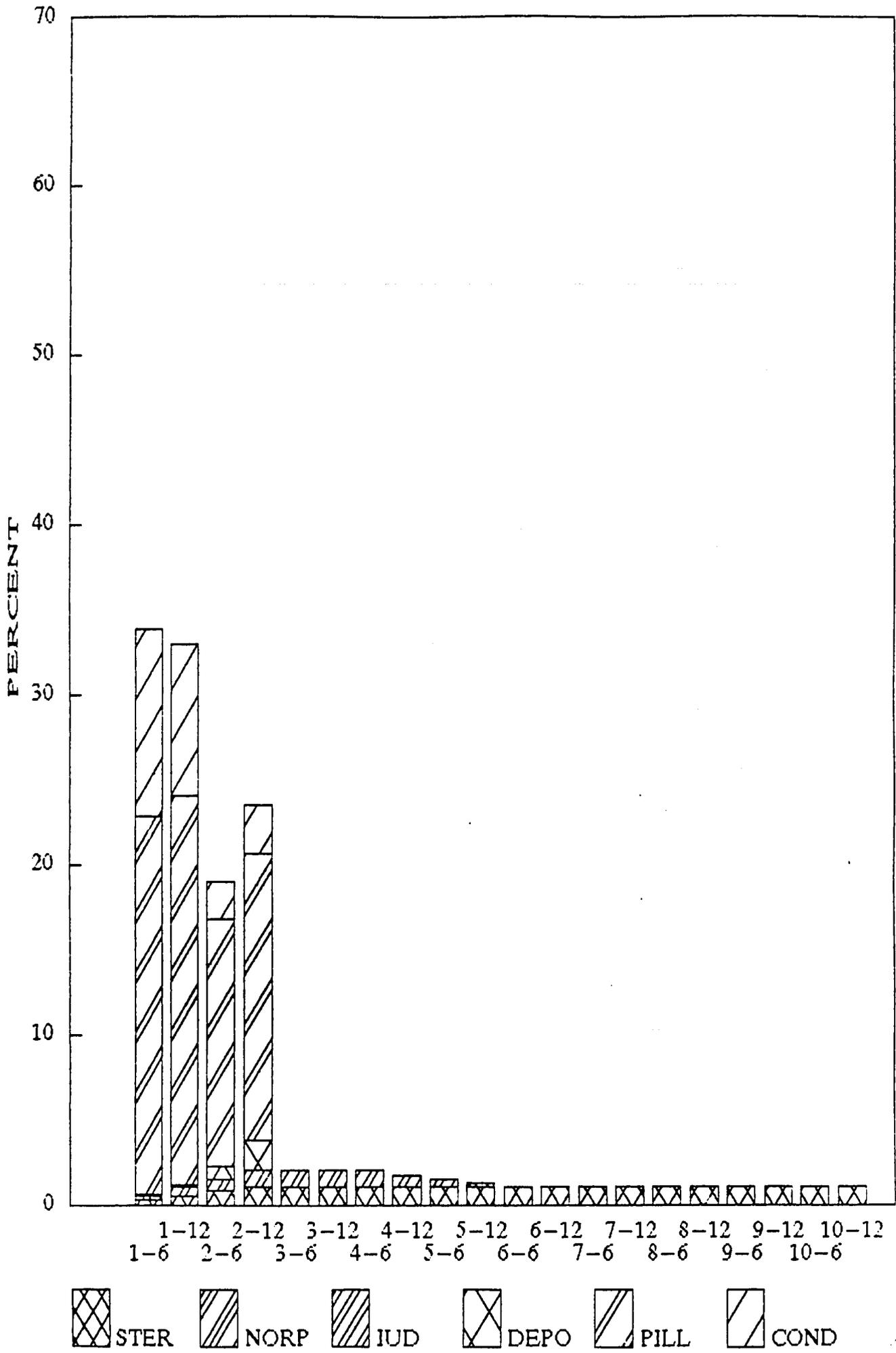
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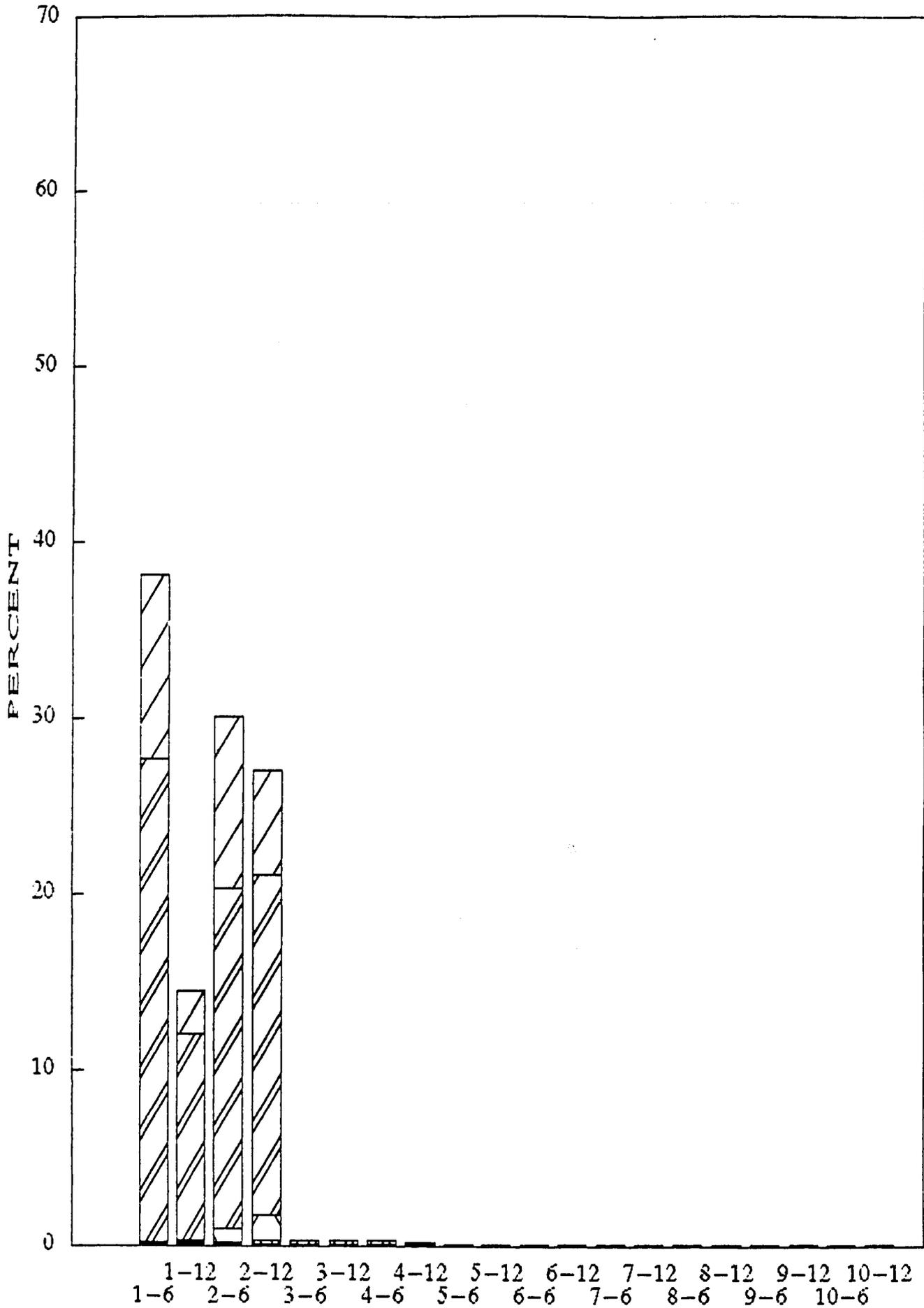
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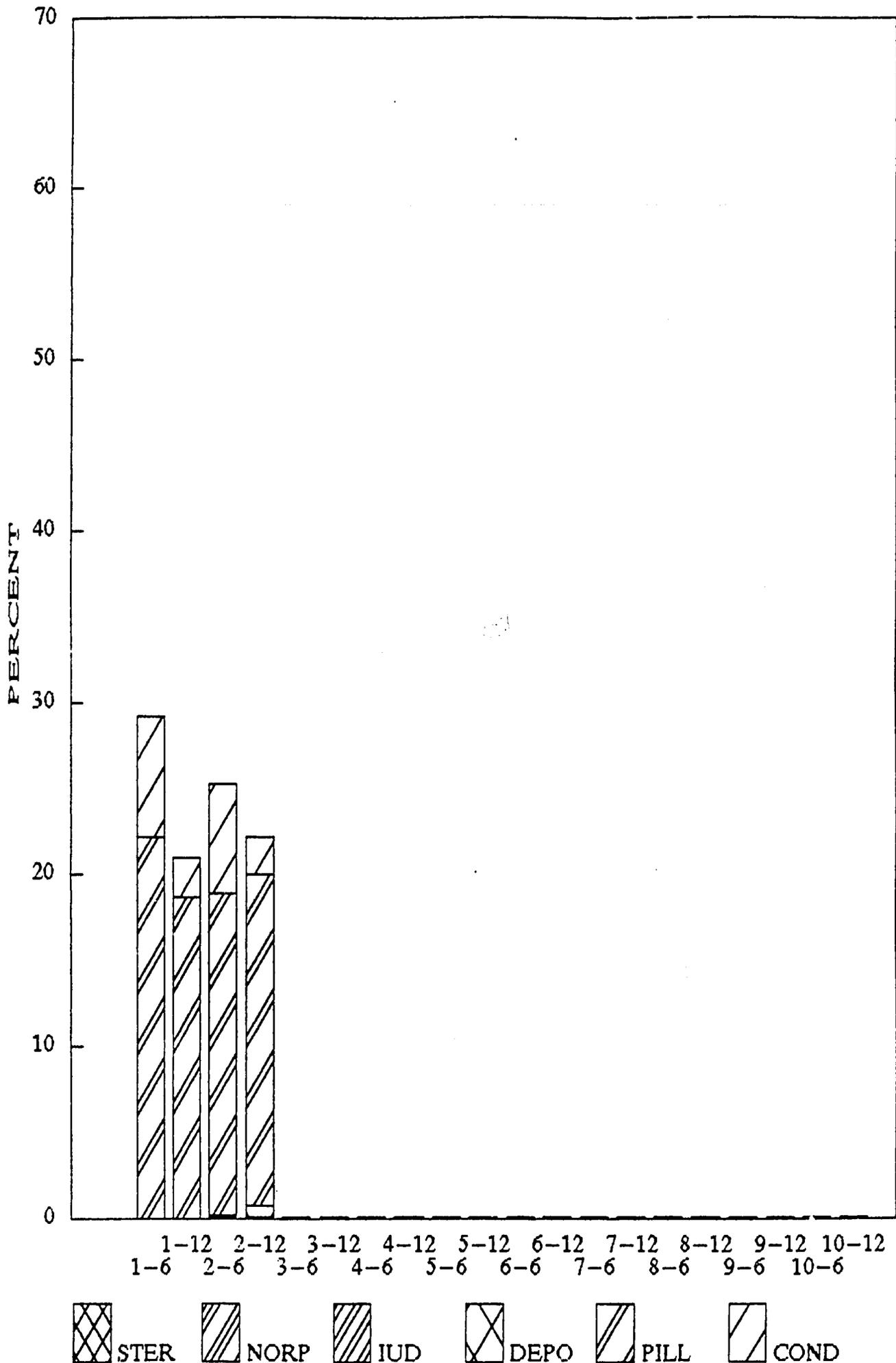
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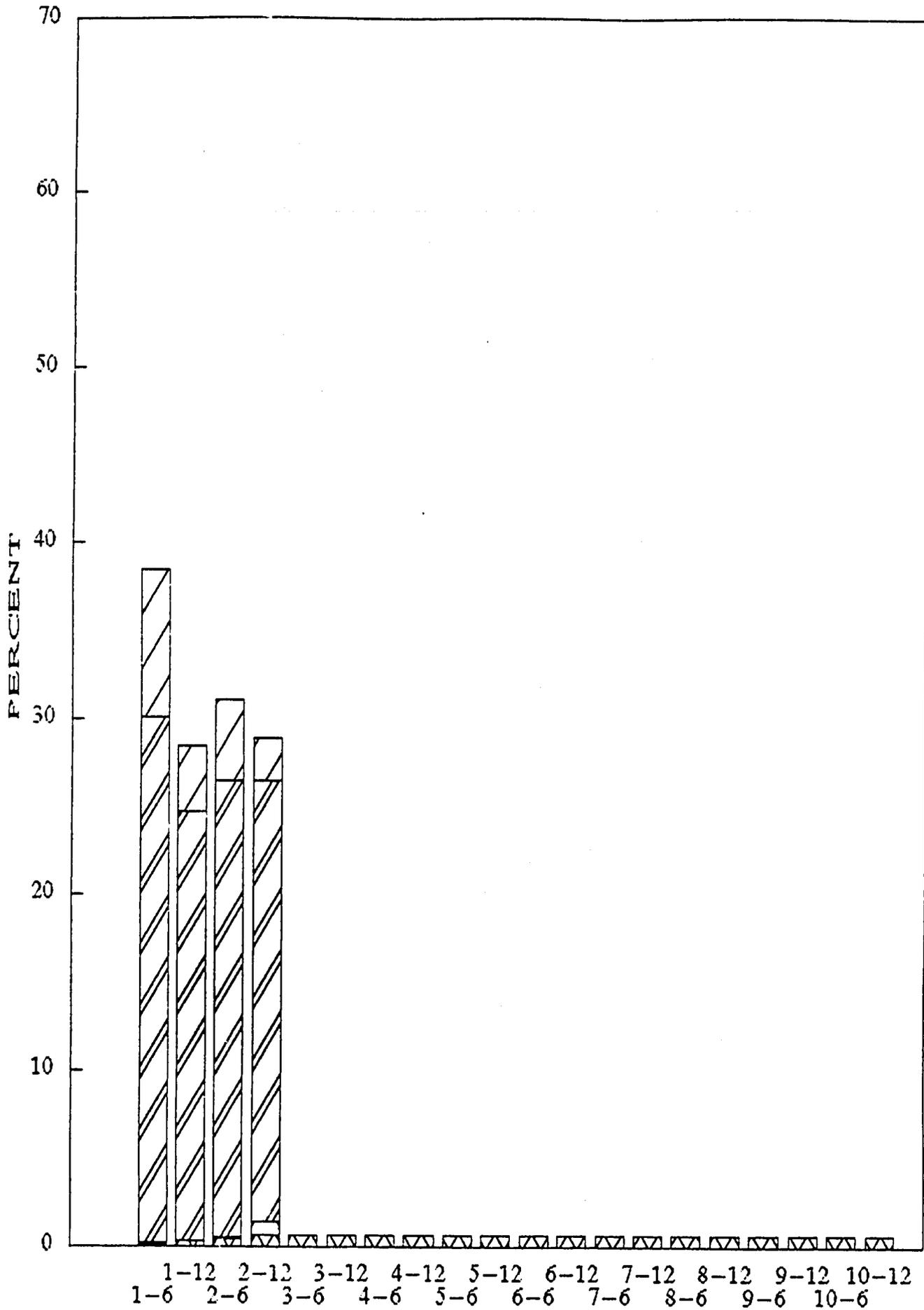
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BINGA



CONTRACEPTIVE PREVALENCE 1992-1996

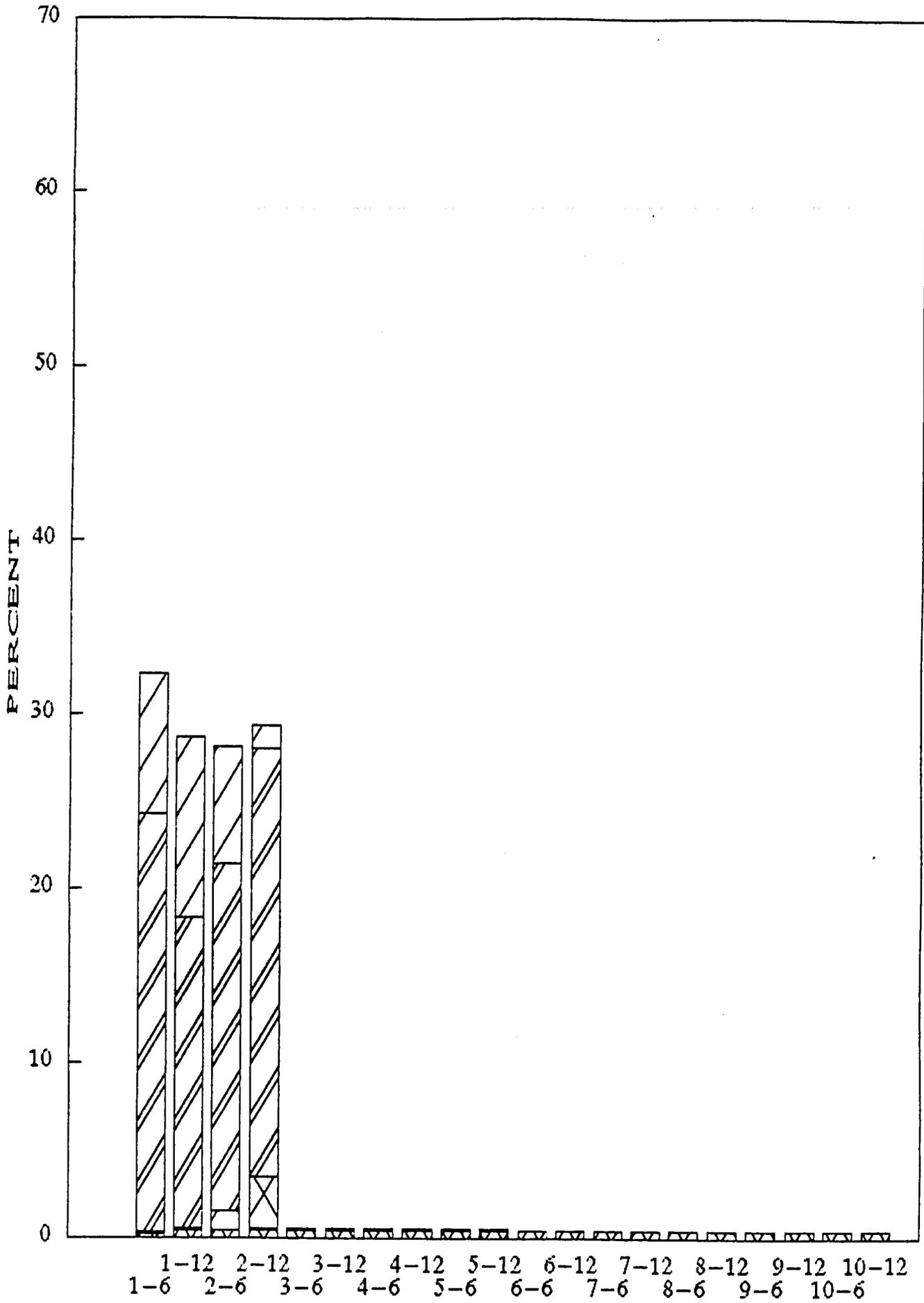
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STER
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 COND

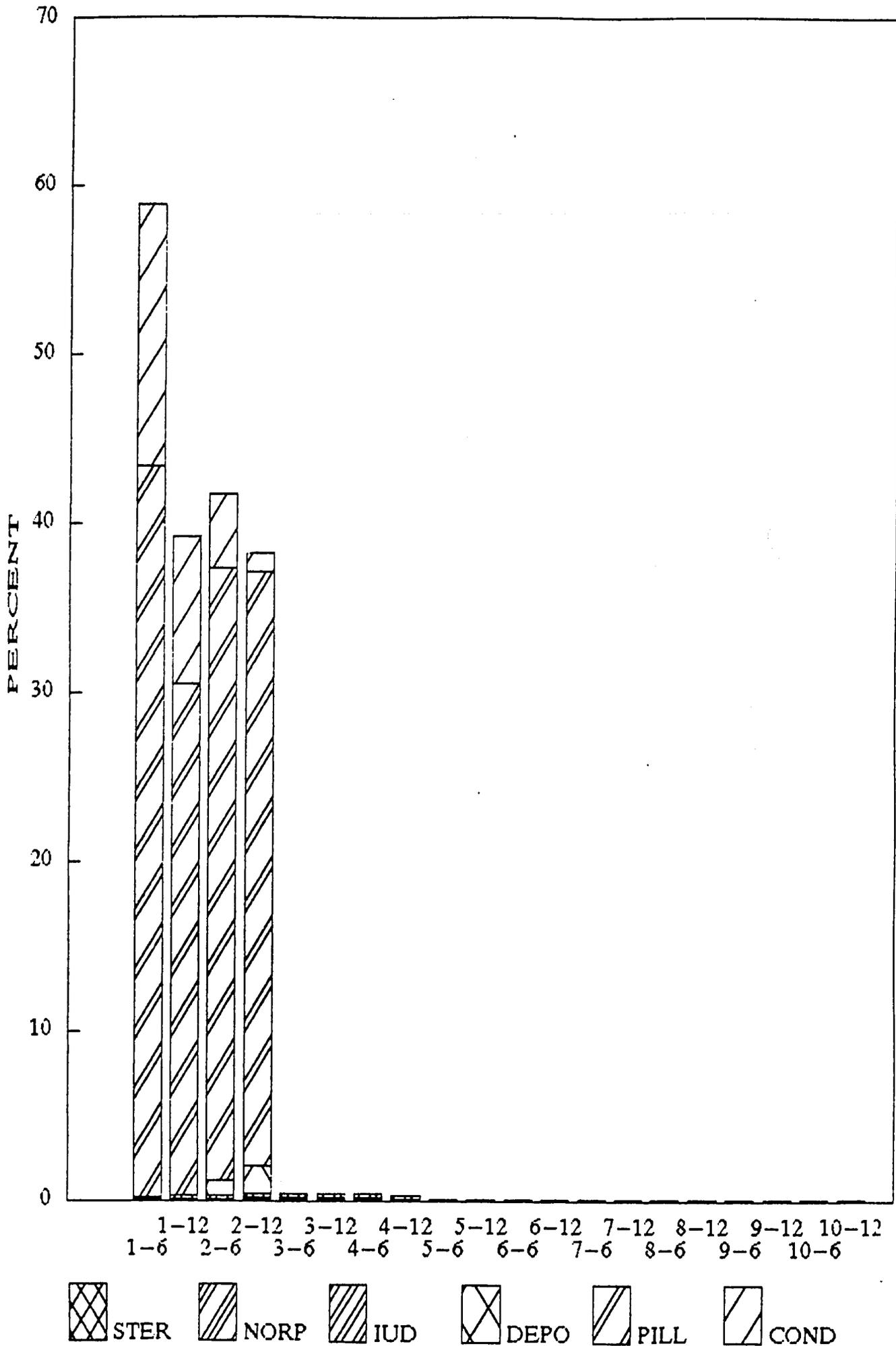
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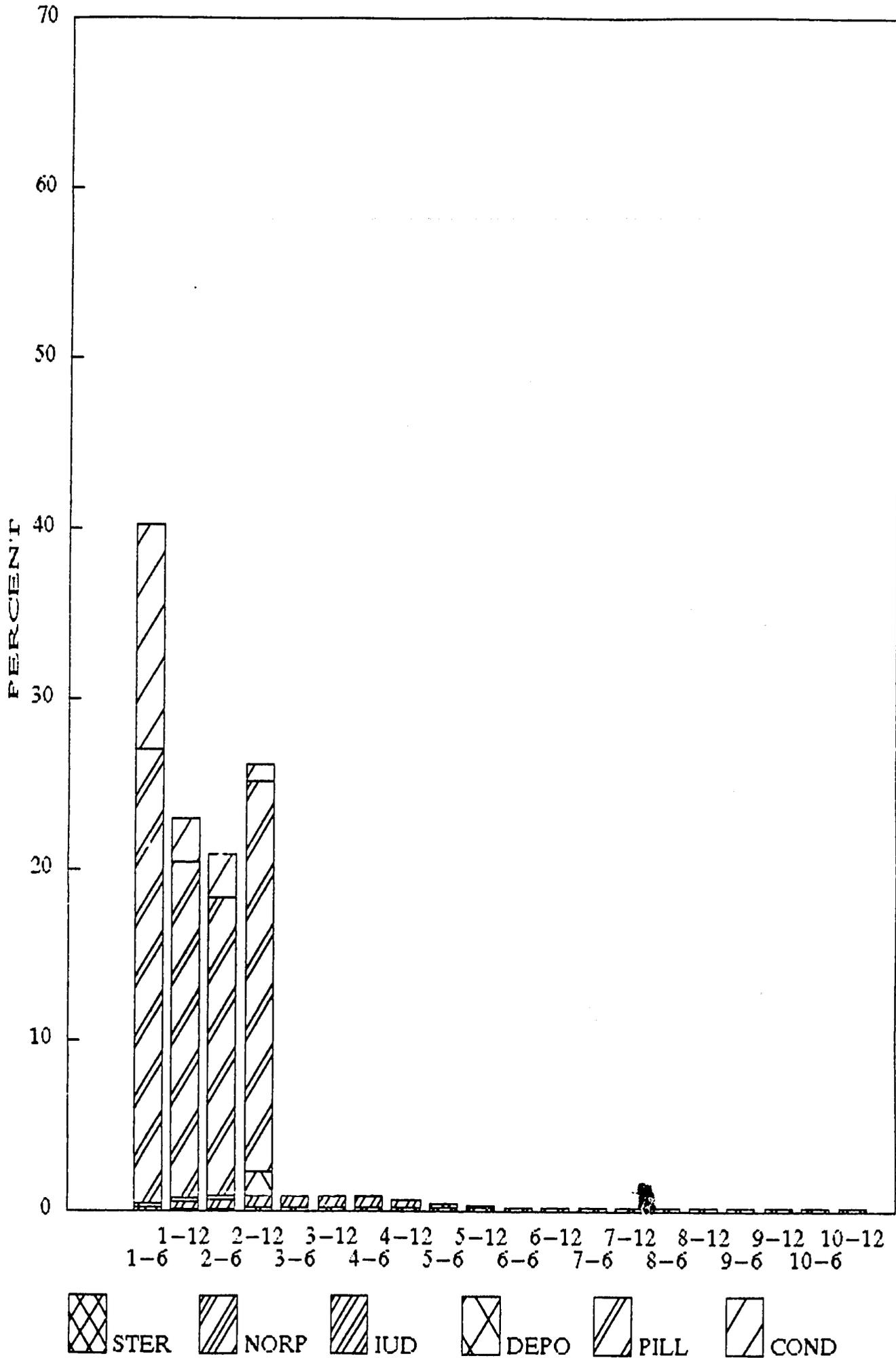
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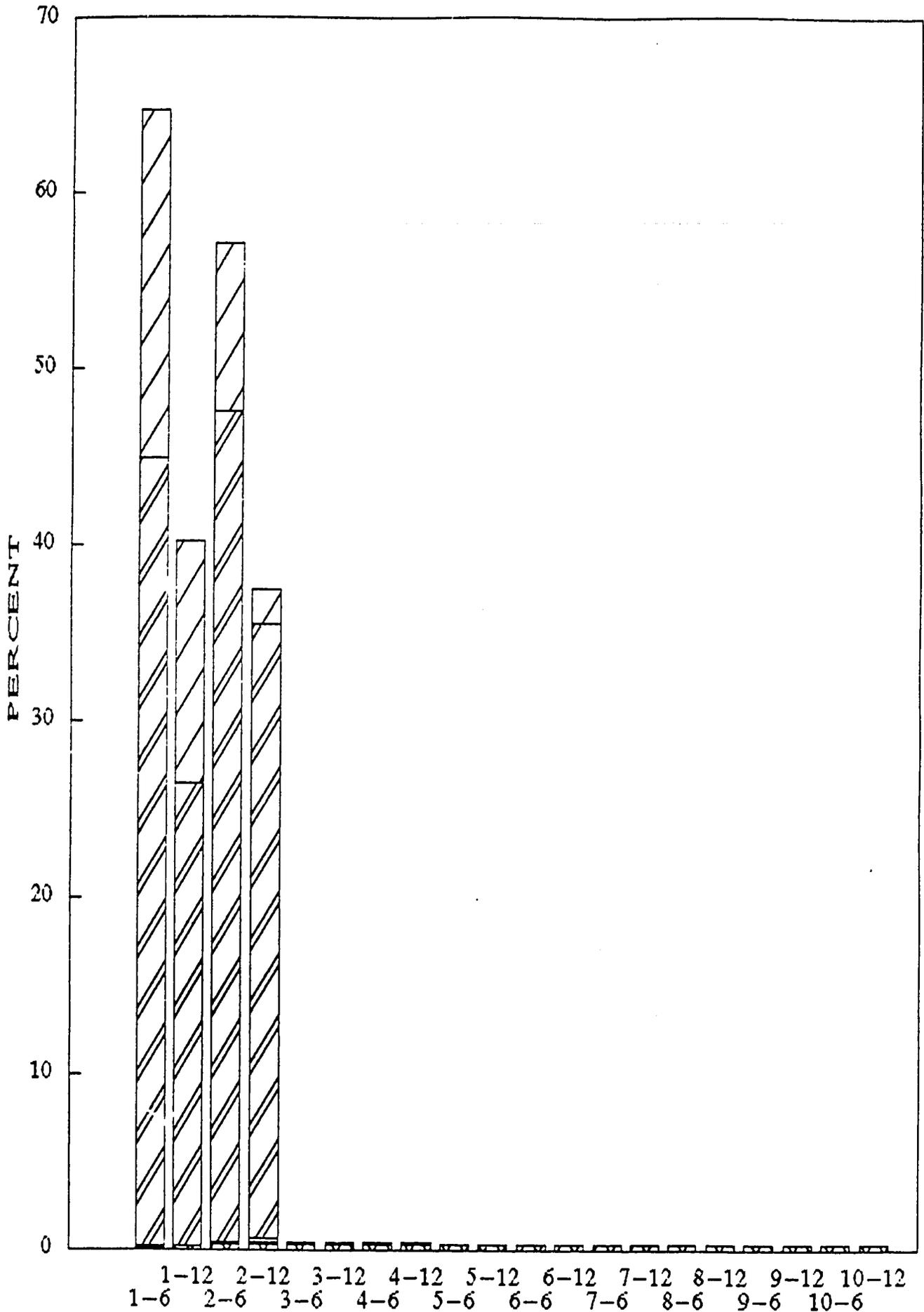
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MAKONI



CONTRACEPTIVE PREVALENCE 1992-1996

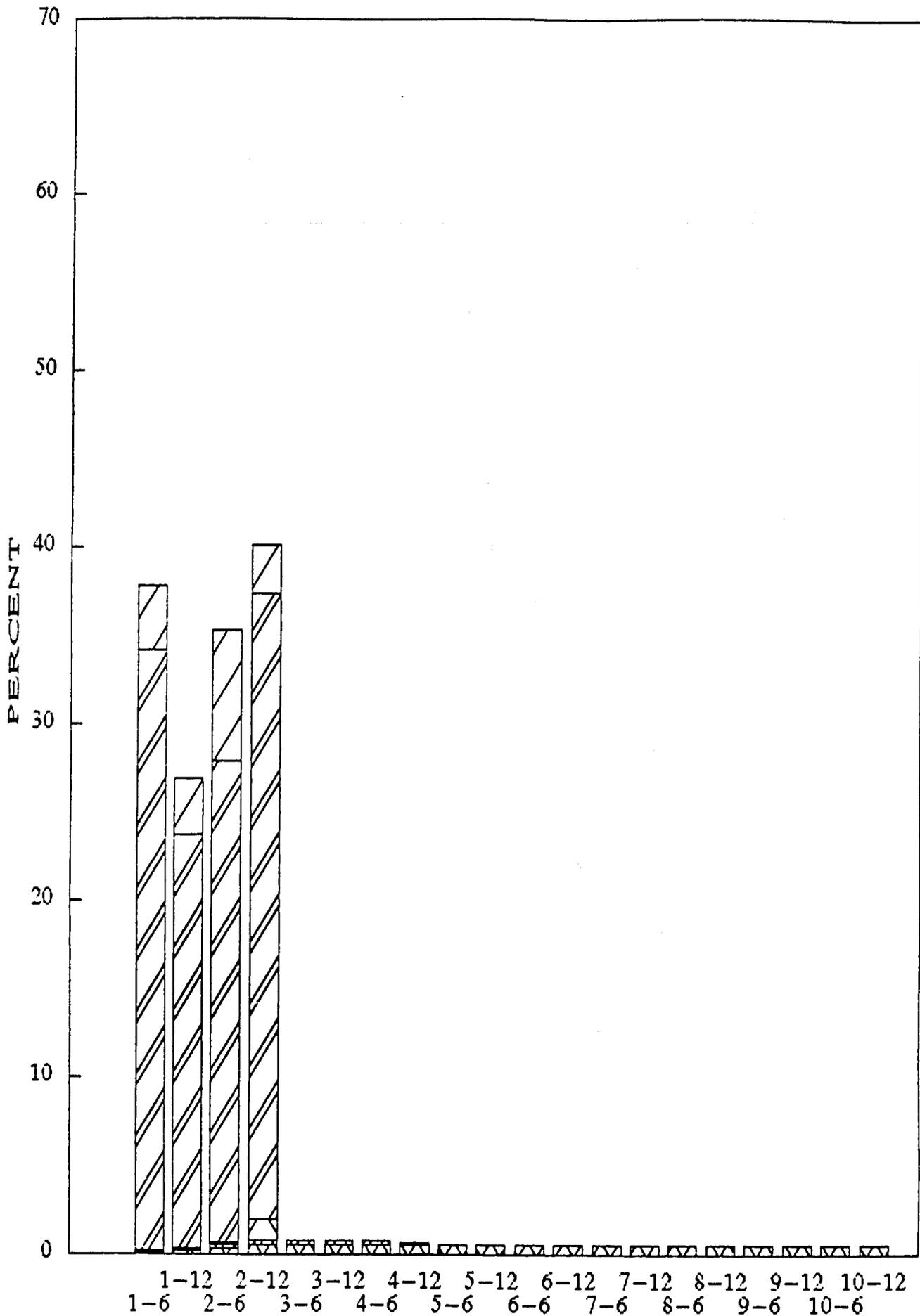
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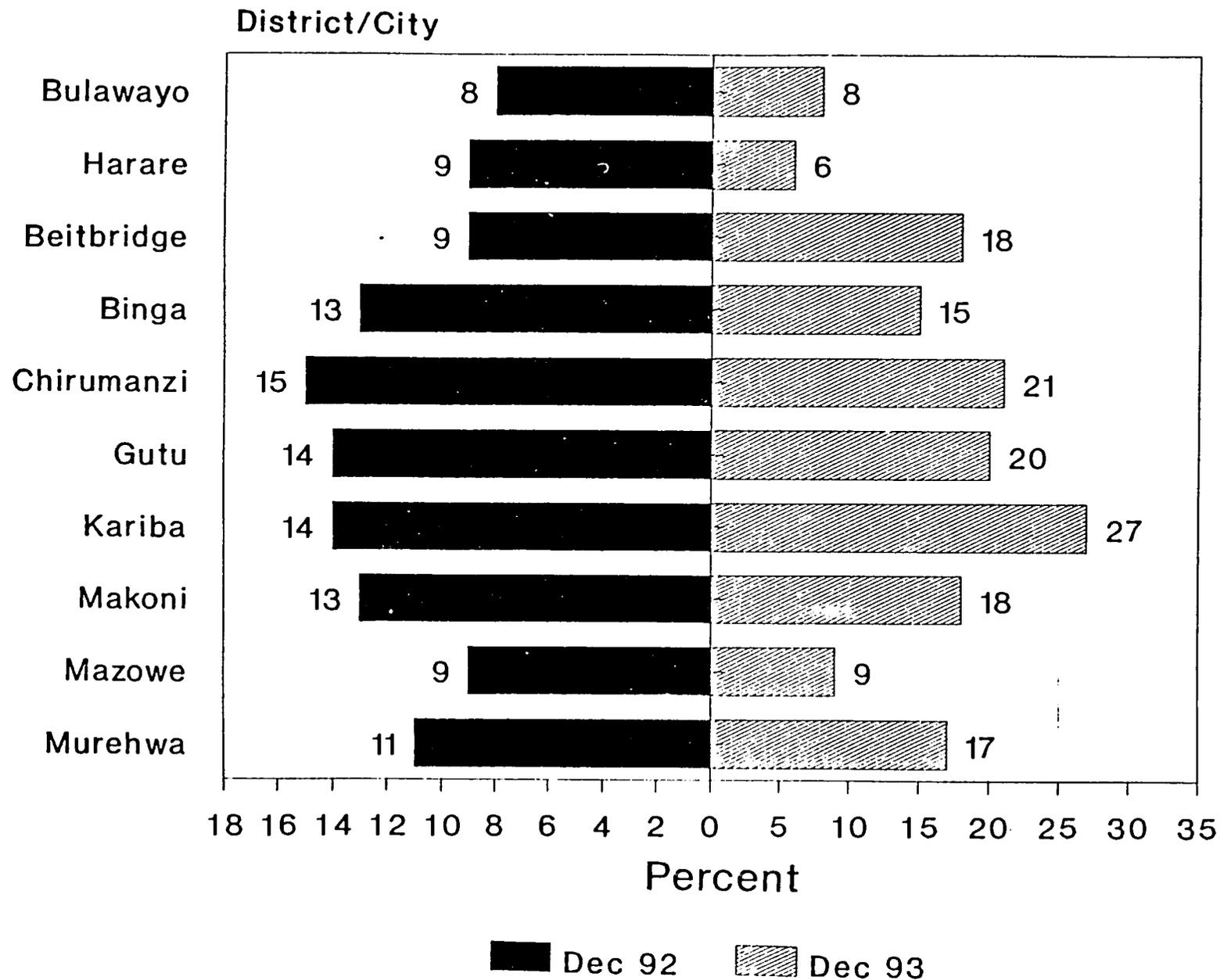
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CONTRACEPTIVE PREVALENCE 1992-1996

MUREHWA

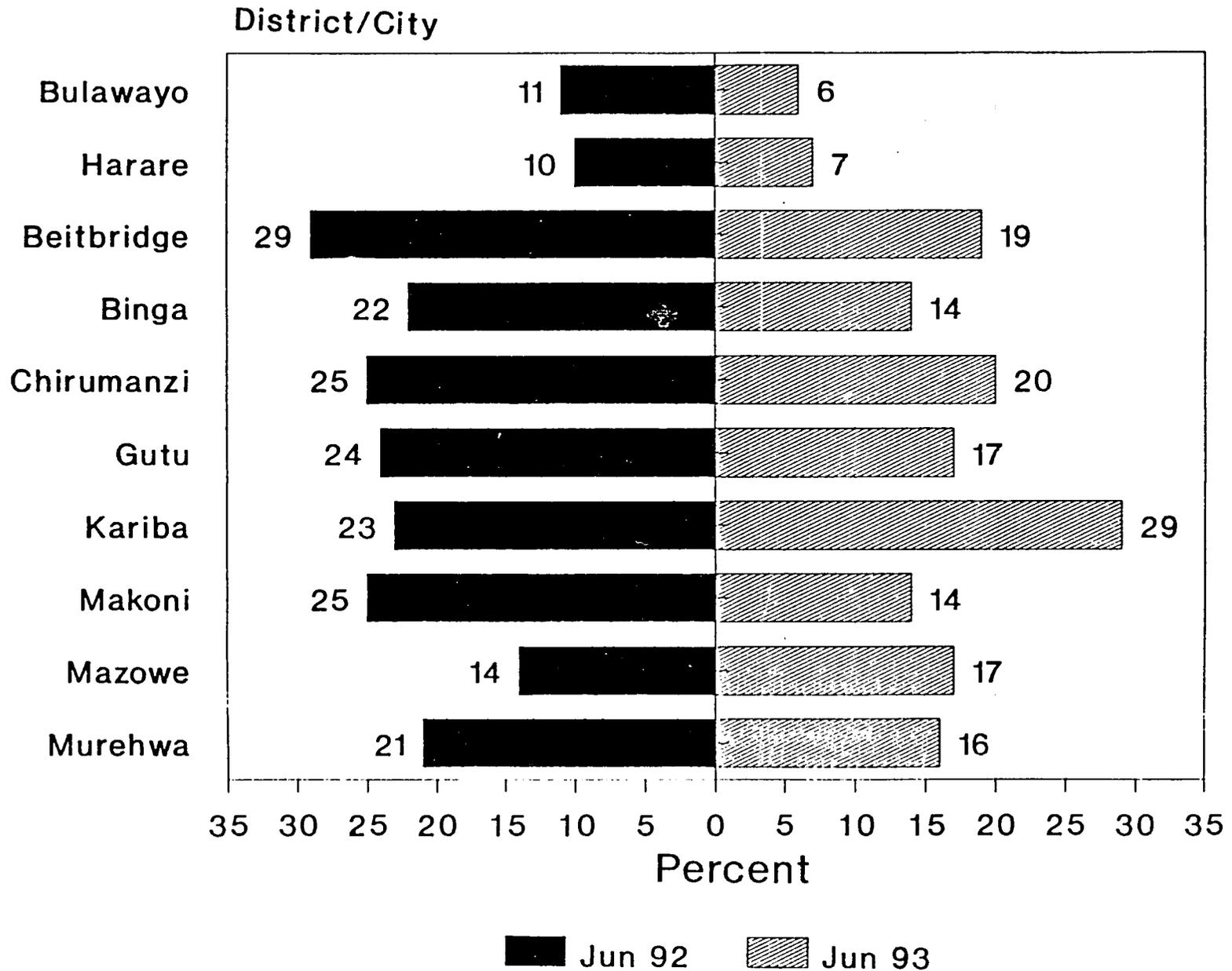


CONTRACEPTIVE PREVALENCE GENERATED BY ZNFPC SECTOR DURING PERIOD 1992 AND 1993



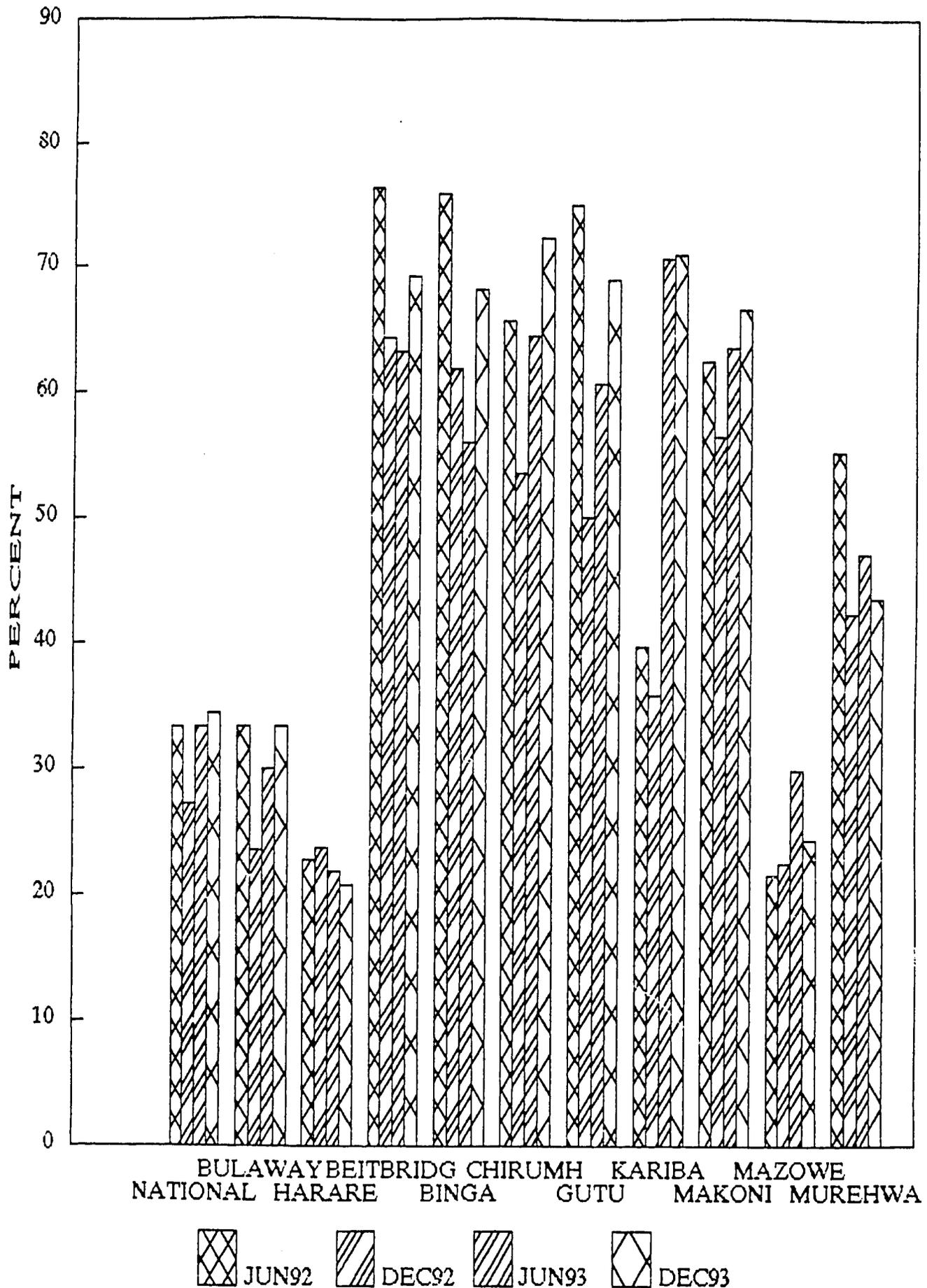
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CONTRACEPTIVE PREVALENCE GENERATED BY ZNFCP SECTOR DURING PERIOD 1992 AND 1993



96

PERCENT OF CONTRACEPTIVE PREVALENCE PROVIDED BY ZNFPC
ZIMBABWE, 1992 AND 1993



CONTRACEPTIVE PREVALENCE PROVIDED BY ZNFPC

ZNFPC FAMILY PLANNING SERVICE DELIVERY SYSTEMS

- Two types of FP delivery systems
 - Clinics
 - Provide all types of methods
 - Community Based Distributors (CBDs)
 - Provide Oral Pills and Condoms
 - Motivate and refer to clinics for long and permanent methods

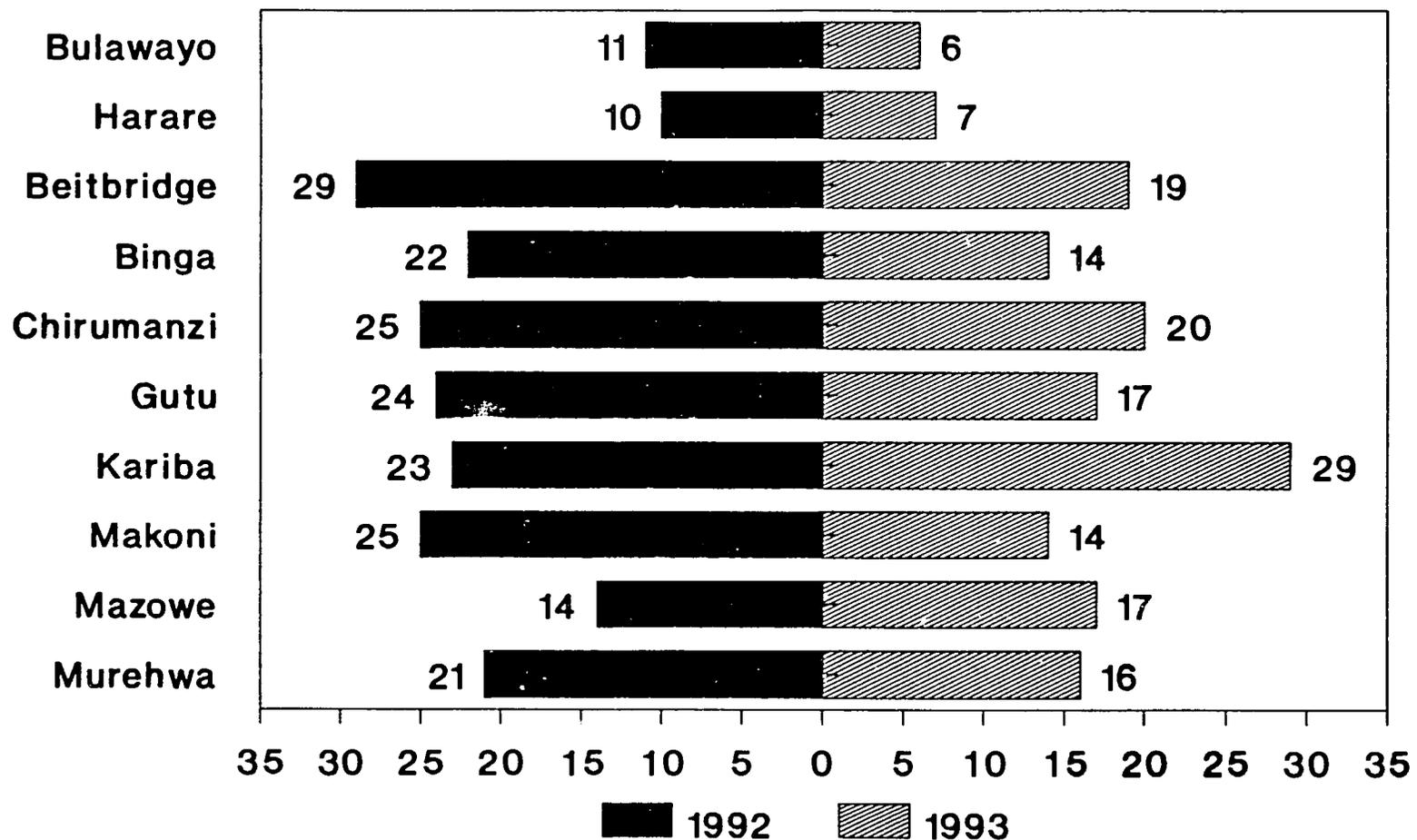
- Distribution of ZNFPC Delivery Systems in Sample

DISTRICT/CITY	CBD SECTOR	CLINICS SECTOR
Bulawayo	X	X
Harare	x	X
Beitbridge	X	
Binga	X	
Chirumanzu	X	
Gutu	X	
Kariba	X	X
Makoni	X	X
Mazowe	X	
Murehwa	X	X

X = Presence of ZNFPC FP Delivery System

x = Motivates and refer clients only

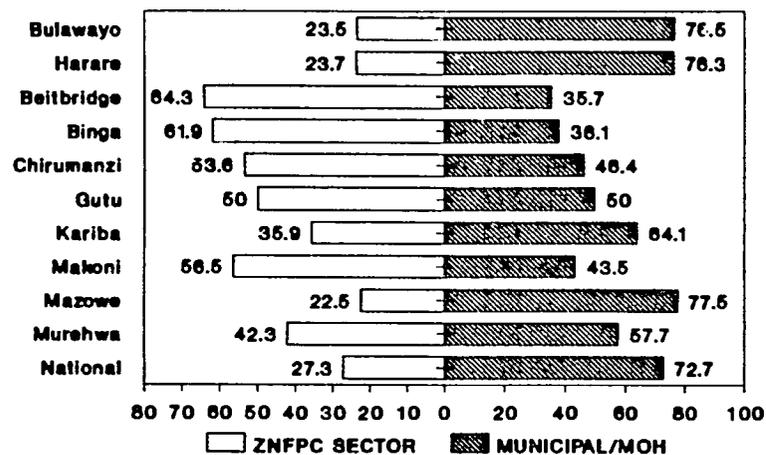
CONTRACEPTIVE PREVALENCE GENERATED BY ZNFPC DURING PERIOD 1992 AND 1993



(Source: ZNFPC data - FPPMES Sample)

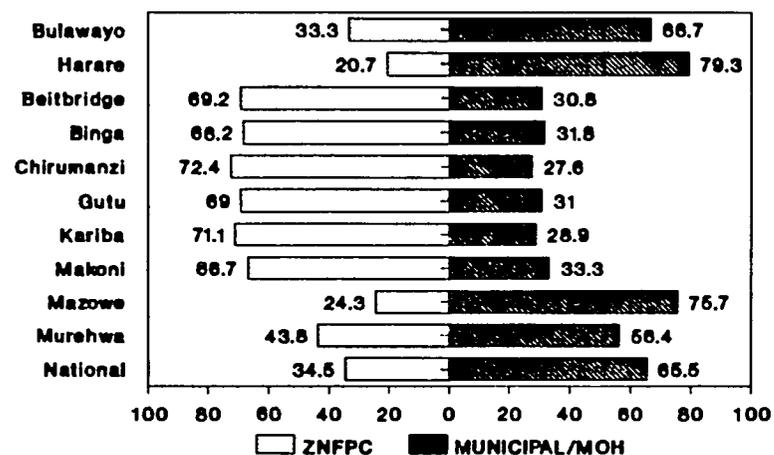
69

% DISTRIBUTION OF CONTRACEPTIVE PREVALENCE IN ZIMBABWE BY SECTOR - 1992



(Source: FPPMES Sample)

% DISTRIBUTION OF CONTRACEPTIVE PREVALANCE IN ZIMBABWE BY SECTOR - 1993

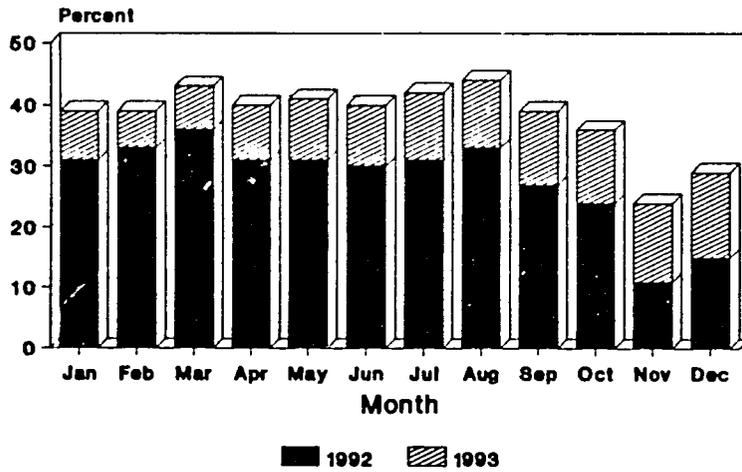


(Source: FPPMES Sample)

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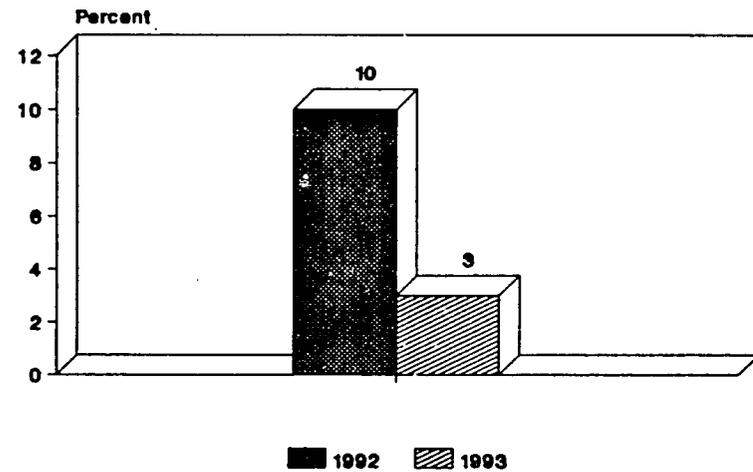
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**% DISTRIBUTION OF CYPs GENERATED BY
CONDOMS DURING 1992 & 1993**



(Source: FPPMES Sample)

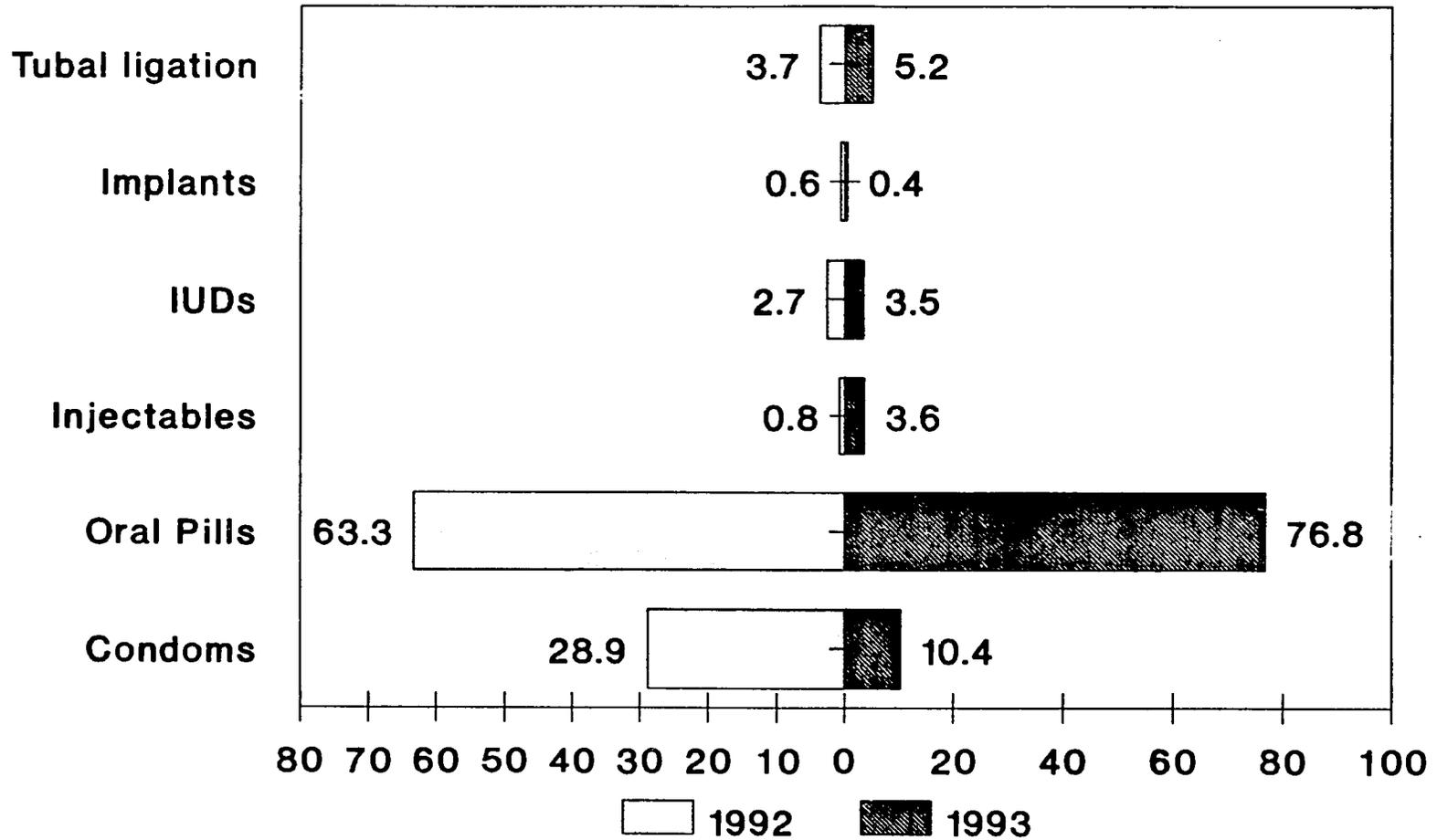
**CONTRACEPTIVE PREVALENCE PROVIDED BY
CONDOMS DURING 1992 AND 1993**



(Source: FPPMES Sample)

BEST AVAILABLE DOCUMENT

ZNFPC FACILITIES' % DISTRIBUTION OF CYPs GENERATED BY METHOD 1992/3

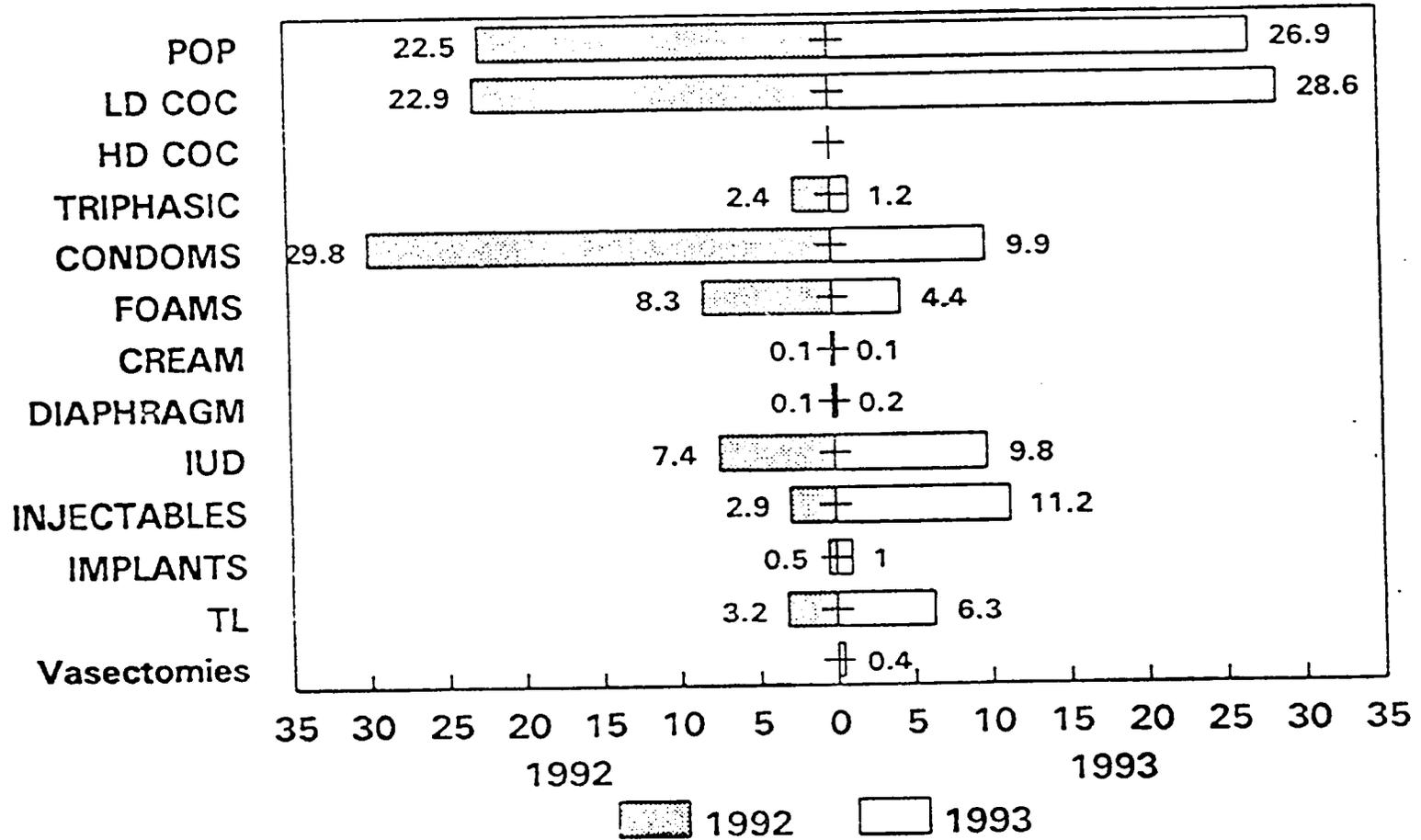


(Source: ZNFPC Data - FPPMES Sample)

eh

GRAPH 7.

ZNFPFC Facilities' % Distribution of CYPs Generated by Method (1992-1993)



(SOURCE: ZNFPFC's ERU)

eh