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September 8, 2004

TO: Each Supervisor

FROM: Thomas L. Garthwaite, M.D.
Director and Chief Medical Officer

Jonathan E. Fielding, M.D., M.P.H.
Director of Public Health and Health Officer

SUBJECT: **INFANT MORTALITY AMONG AFRICAN AMERICANS IN THE ANTELOPE VALLEY**

On April 13, 2004, the Board approved a motion by Supervisor Antonovich instructing the Director of Health Services to convene a working group of Public Health staff and community agencies to address the alarming rate of infant mortality among African Americans in the Antelope Valley. On July 6, 2004, the Board accepted the 2004 report, *Infant Mortality Among African Americans in the Antelope Valley,* and directed the Directors of Health Services and Public Health to proceed with implementation of the recommendations and to provide a progress report within 60 days.

Attachment I is an updated report on the preliminary findings from the data on infant mortality in 2002. Attachment II is a progress report on how we are implementing the recommendations in the 2004 report. Attachment III is a map of infant mortality cases and poverty in the Antelope Valley.

If you have questions or require additional information, please let either of us know.

TLG:JEF:bt
404:011

c: Chief Administrative Officer
County Counsel
Executive Officer, Board of Supervisors

Attachment I

Infant Mortality Review - Los Angeles County

Antelope Valley - 2002

Preliminary Findings

Between 1998 and 2002, the infant mortality rate (infant deaths per 1,000 live births) in Antelope Valley (SPA 1) increased from 7.8 per 1,000 to 10.6 per 1,000. The number of infant deaths between 2000 and 2002 almost doubled, from 29 to 53 deaths. The report to the Board of Supervisors in June 2004 reported 52 deaths in 2002. Since then, additional work with the linked birth –death records turned up an additional case, bringing the total to 53 cases for 2002. The greatest increase in infant mortality occurred in the African American community.

A comparison between the profile of live births in SPA 1 and Los Angeles County (LAC) revealed that SPA 1 had a higher proportion of live births with known risk factors for adverse birth outcomes. As shown in Figure 1, SPA 1 had a higher proportion of births at low birth weight and very low birth weight (8.1% and 2.0%) compared to LAC (6.8% and 1.3%). In addition, the proportion of mothers who began prenatal care in the first trimester in SPA 1 (84.1%) was lower compared to those in LAC (90.0%), as indicated in Figure 2.

Figure 1. Percent of Live Births by Birth Weight, SPA1 and Los Angeles County, 2002

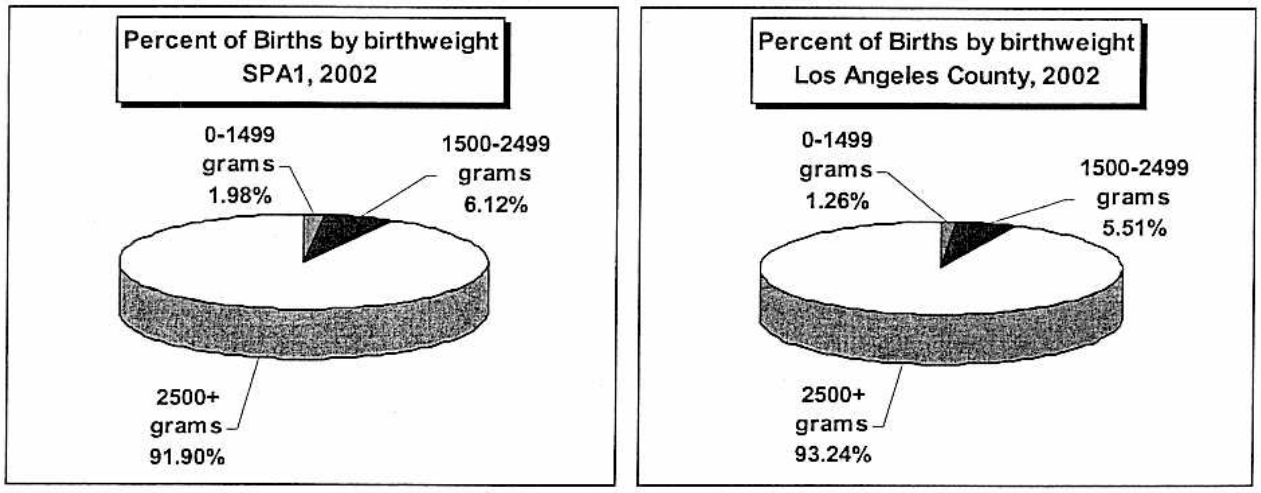
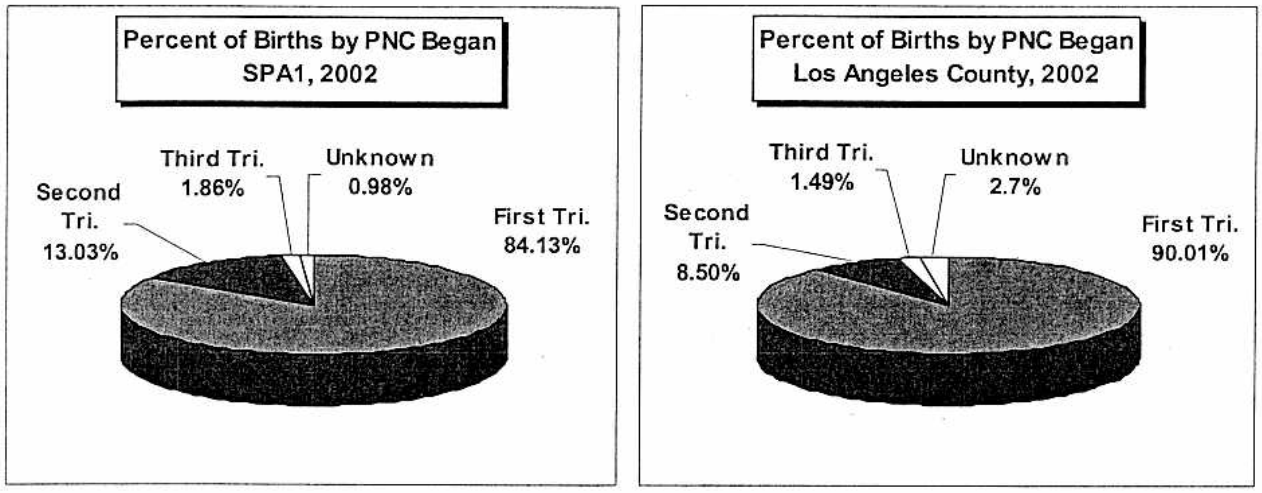


Figure 2. Percent of Live Births by Mother's Trimester Prenatal Care Began, SPA 1 and Los Angeles County, 2002



Source: California Department of Health Services, Vital Statistics, 2002

In collaboration with the DHS Office of Health Assessment and Epidemiology, Data Collection Analysis Unit, the Maternal, Child and Adolescent Health program identified 53 infant deaths using internally linked birth and death records for SPA 1 in 2002.

Among the 53 infant deaths that occurred in SPA 1 in 2002, 42% (22 infants) died within 24 hours and 68% (36 infants) died in their first 28 days of life. About two-thirds of the infant deaths were born prematurely[1] (40 infants) or low birth weight[2] (39 infants). Eight infant deaths were from multiple gestations, i.e. twins or triplets (15%).

Table 1 presents the results of descriptive analyses of infant mortality by selected characteristics in SPA 1. The infant mortality rate was calculated to make meaningful comparisons. The results were consistent with known risk factors for infant deaths found in the literature. Male infants were more likely to die compared to female infants (12.5 per 1,000 live births and 9.1 per 1,000 respectively). As is commonly the case, twins and triplets had significantly higher infant mortality rates compared to singletons. Infants

[1] Preterm birth is defined as less than 37 completed weeks of gestation.
[2] Low birth weight is defined as less than 2,500 grams (5 lb 8 oz) at birth, and very low birthweight is defined as less than 1,500 grams (3 lb 5 oz) at birth.

born preterm or post-term were also more likely to die compared to those that were born at term. There was an inverse relationship between birth weight categories (<1500 g, 1500 to 2499 g, 2500+ g) and infant mortality, i.e. the lower the birth weight, the higher the infant mortality rate. As evident in previous analyses, African American infants had a much higher infant mortality rate compared to infants of other racial/ethnic groups. In addition, African American infant deaths comprised nearly 50% of all infant deaths in SPA 1, where African American births comprised less than 20% of all live births. Not surprisingly, the infant mortality rate was higher for mothers who initiated prenatal care in the second trimester compared to that for mothers who initiated prenatal care in the first trimester. Using the Kotelchuck Index to examine the adequacy of prenatal care utilization, the infant mortality rate was higher among mothers who received inadequate prenatal care compared to those who received adequate care.

It should be noted that the above analyses represent a profile of infant deaths occurred in SPA 1 in 2002 based on information available from the birth and death records. More research and detailed analyses are needed to identify additional factors related to the dramatic increase in infant mortality in SPA 1, particularly in the African American community. This will require a collaborative effort among the health department, other county departments, community partners and university-based research organizations to identify the specific causes, and to develop and implement strategies to prevent infant deaths and improve pregnancy outcome in SPA 1.

Table 1. SPA 1 – Antelope Valley
Infant Mortality by Selected Charateristics

Los Angeles County, 2002

Specific Characteristics	Infant Deaths	Live Births	Rate/ 1,000
Baby's Gender			
Male	31	2,487	12.5
Female	22	2,416	9.1
Type of Birth			
Single	44	4,755	9.3
Twin or Triplet	8	148	54.1
Gestation			
Preterm	40	652	61.3
Term	7	3,668	1.9
Post-term	5	384	13.0
Birth Weight			
Less than 1500 grams	31	97	319.6
1500 to 2499 grams	8	300	26.7
2500+ grams	13	4,506	2.9
Mother's Race/Ethnicity			
White	7	1,628	4.3
Hispanic	20	2,264	8.8
African American	23	825	27.9
Mother's Age			
Less than 20	11	639	17.2
20 to 34	37	3,635	10.2
35+	4	629	NC
Trimester Prenatal Began			
First	34	4,125	8.2
Second or Third	16	730	21.9
Kotelchuck Index			
Adequate	29	3,935	7.4
Not Adequate	23	761	30.2

Note: Infant deaths are defined as death occurred up to 365 days of age
Rates are not calculated (NC) for cells with fewer than 5 observations.
Deaths with unknown characteristics specified are excluded from this analysis

Source: Internal linked 2002 birth and death file, LACDHS Data Collection & Analyses

Attachment II

Update on Recommendations

Recommendation 1
Increase capacity and target access to high risk family support programs for African American women and their families.

1.1 By August 2004, organize a resource group of local provider groups and community advocates to determine the viability of opening a women's health care local one-stop-shop or "drop-in" care center for at-risk women in targeted areas of the Antelope Valley.

Update
This project will be headed by James Cook, COO, Partners in Care Foundation, and Anita Horner, FNP for the Antelope Valley Care-A-Van, and will begin meeting in September 2004.

1.2 By August 2004, Area Health Office and local community health collaborative will submit at least one application for additional funding to increase the capacity of programs that target at-risk African American women and teens.

Update
An application for HHS, Office of Minority Health, Community Programs to Improve Minority Health, OMB No. 93.137 was submitted on August 3, 2004. A decision on the application is anticipated before September 30, 2004. We are searching for additional opportunities for grant funding.

Recommendation 2
Decrease barriers to accessing care by increasing the number of women and infants that have medical insurance.

2.1 By September 2004, SPA 1 Area Health Officer, Maternal, Child and Adolescent Health Programs (MCAH) Director and members of the Los Angeles Best Babies Collaborative (LABBC), will work with Los Angeles County legislative analysts to prepare language to advocate for Medi-Cal coverage for women two years post-partum to provide inter-conception care.

Update
On September 8, 2004, LABBC and MCAH co-hosted a meeting with key stakeholders to discuss Interconception Care Financing Strategies. The participants discussed the applicability and feasibility of existing models of financing interconception care and have begun to create an action plan for future work.

2.2 By September 2004, the SPA 1 Area Health Office will work with community partners and health care providers to increase the use of the newborn referral form for infants born to mothers on Medi-Cal.

Update

We are developing a outreach campaign to address this need and anticipate the program will be ready by January 2005.

Recommendation 3

Collaborate with and educate local health care providers to ensure quality care for African American women and their infants.

3.1 By July 2004 DHS Public Health will initiate an educational program to educate providers regarding infant mortality data, causes of poor outcomes and strategies to assure and improve quality of care.

Update

On July 21, 2004, Dr. Keith Campeau, Area Medical Director for SPA 1, and Dr. Robert Settlage, Medical Director for Maternal Health and Family Planning for MCAH, met with providers at a meeting hosted by Antelope Valley Hospital. Drs. Campeau and Settlage reviewed the data and discussed problems identified by the group regarding access to care and preconception health. Dr. Campeau is in the process of contacting local prenatal and pediatric provider groups.

3.2 By the end of FY 2004-2005 DHS prenatal clinics will provide CPSP-level of care as part of Departmental goals to assure quality of care and integration of Public Health into Personal Health services.

Update

- During the month of August, MCAH contacted all LAC/DHS facilities to identify those providing prenatal care and CPSP services:
  - 16 LAC/DHS facilities are CPSP certified
  - 11 of the 16 approved sites provide prenatal care,
  - 7 DHS sites offer CPSP services
  - Antelope Valley Health Center is CPSP certified, but is not currently providing CPSP services
  - MCAH staff will continue to meet with DHS clinic administration to pursue CPSP implementation.

3.3 By December 2004 provide at least two educational sessions to promote CPSP and prenatal care guidelines for use by community health providers to enhance psychosocial outreach and resource referral to women enrolled in Medi-Cal for their prenatal care.

Update
Planning for these sessions is in process.

3.4 By December 2004 SPA 1 Area Health Office and MCAH to provide information and provider education regarding the role of breastfeeding in preventing infant mortality and the advantages to becoming a Baby-Friendly Hospital, hiring lactation consultants, and promoting breastfeeding in hospital programs.

Update
MCAH staff will make a presentation on the Baby-Friendly Hospital program for DHS leadership on October 15, 2004.

3.5 By December 2004, Nurse-Family Partnership, Prenatal Care Guidance, Black Infant Health and the other Antelope Valley community-based home visitation programs will train a portion of their home visiting staff as Certified Lactation Educators who will be available to assist their clients with breastfeeding issues.

Update
- Funds has been identified to train staff in the Nurse Family Partnership, Prenatal Care Guidance, and Black Infant Health programs
- The training will be scheduled in February 2005. This is the soonest we could get the training implemented due to cost considerations.
- Other Antelope Valley community-based home visitation programs will be notified of the training and invited to attend at their cost.

Recommendation 4
Conduct an education and outreach/marketing campaign aimed at African American women and the local community regarding healthy life practices.

4.1 By July 2004, Antelope Valley Partners for Health and the Area Health Office will update the community resource guide and collaborate with First 5 Connect to increase use of local services by African American families.

Update
Antelope Valley Partners for Health has completed the initial revision of the resource guide and the Area Health Office is currently working with First 5 Connect on ways to let local African American families to know about these resources and the guide, as well as exploring other distribution channels.

4.2 By July 2004, SPA 1 AHO to work with the CAO Service Integration Branch to make available the Most Commonly Required Documents (MCRD) to increase knowledge regarding processes and information needed to obtain Medi-Cal, CalWORKs, and other benefits for high-risk families.

Update

The web page design for updating SPA 1's Public Health site is in process of being programmed and should be completed by September 30, 2004. This will also include the resource guide.

4.3 By August 2004, the Area Health Office and community collaborative will study the feasibility and plan for a community-based family mentoring program that utilizes local agencies as support systems for targeted high risk families.

Update

This program will require further study to assure the privacy of families is protected and that participant agencies have a clear vision of their role as sponsors. We are researching existing programs such as this and will provide the community collaborative information at an upcoming meeting.

4.4 By August 2004, MCAH and the Area Health Office will conduct at least three community focus groups to gain further insight into community-identified issues and strategies that focus on infant mortality.

Update

The three focus groups have been completed in collaboration with MCAH. Focus group participants commented on questions in the proposed Los Angeles Mommy and Baby Survey (LAMBS) (see Recommendation 5.3), quality of care and issues around their birth experiences. Their responses will be compiled and used in educational sessions for local hospitals and providers for quality care improvement activities.

4.5 By September 2004, the Area Health Office will create a speaker's bureau to conduct outreach to increase community awareness and highlight the benefits of early prenatal care, breastfeeding, and the importance of "preconception care".

Update

- The LABBC is working in collaboration with MCAH and the Area Health Office to create a presentation on improving birth outcomes. The primary audience is women of childbearing age, pregnant women and families in SPA 1 – the Antelope Valley. Secondary audiences include parent groups, employers, faith-based organizations, and other community based organizations in SPA 1.

- An outline and slides for the presentation have been developed and will be finalized by end of October 2004.

- The SPA 1 Health Educator and Public Health Nurses will be trained on how to deliver the presentation by November 2004.

4.6 By September 2004, the Area Health Office will collaborate with local health care agencies and businesses to provide training on Baby-friendly facilities and services for employers

4.7 By November 2004 the Area Health Office will collaborate work with the Breastfeeding Task Force of Greater Los Angeles's Breastfeeding Works Program to promote workplace lactation accommodation in the Antelope Valley.

Update

- The Breastfeeding Task Force of Greater Los Angeles (BFTF) developed a "Breastfeeding Works" program, which assists employers with the development of lactation accommodation programs to be in compliance with California state law.
- Initial conversations have taken place with the BFTF to discuss implementation strategies such as working jointly with the Antelope Valley Chamber of Commerce and the County's Economic Development Council to coordinate seminars for employers on lactation accommodation in the workplace.

4.8 By December 2004, Area Health Office will publish a resource guide for community and provider distribution that reviews issues such as Medi-Cal enrollment for both mothers and their infants, family support programs such as parenting and mental health counseling, as well as resources for assistance with alcohol and drug abuse issues in families.

Update

See 4.1

Recommendation 5

Conduct research to determine the causes of infant mortality in the Antelope Valley.

5.1 By August 2004, SPA 1 Area Health Office will set up a Community Advisory Board to review research outlined above and to make recommendations about implementation in the Antelope Valley.

Update

Members of Antelope Valley Health Partners and LABBC have continued to work with MCAH and the Area Health Officer for SPA 1 to oversee implementation activities for recommendation 5.

5.2 By September 2004, DHS MCAH in collaboration with the SPA 1 Area Health Office will conduct a retrospective study of 2002 infant deaths in the SPA 1 to identify risk factors that may be associated with adverse birth outcomes, utilizing a Fetal Infant Mortality Review (FIMR) process.

Update

- As of September 1, 2004, project members have developed the study protocol and data collection instruments.
- SPA 1 public health nurses have been trained on the study protocol and instruments.
  - MCAH staff have worked collaboratively with Coroner's office to obtain coroner and autopsy reports for cases in which autopsies were performed.
  - PHN staff in SPA1 have contacted all 53 families by letter and scheduled some follow-up visits. Many of the families have consented to a PHN interview. Thirty percent of the families have moved and we are attempting to locate them. Record extraction for hospital records is moving forward and should be completed by the end of September. Record extraction for prenatal and pediatric provider medical records will begin by September 15, 2004. This extraction process is extremely time consuming for PHNs, who have also been immersed in educating the local public about West Nile Virus prevention measures. We anticipate this work will be completed before the target date of December 2004.
- MCAH will convene a FIMR Technical Review Panel to identify risk factors that may be associated with death and develop recommendations for prevention and intervention by February 2005.

5.3 By September 2004, DHS MCAH will conduct the Los Angeles Mommy and Baby (LAMB) Project with a representative sample of all live births in SPA 1 to identify factors associated with adverse birth outcomes.

Update

- The Antelope Valley LAMB project is a population-based study of SPA 1. It is designed to identify potential risk factors for preterm and low birth weight, two birth outcomes that contribute to infant morbidity and mortality. The findings will be used to formulate public health interventions. Areas to be examined include access to care; prenatal care utilization, content and satisfaction; intimate partner abuse; mental health; maternal health and pregnancy history; infant feeding practice; tobacco, alcohol, and drug use; and environmental factors.
- As of September 1, 2004, we have determined the sampling method, finalized the survey instrument, established mechanisms to obtain more timely birth data, and prepared a sample survey package.
- A total number of 750 women will be randomly selected from all live births in SPA 1 over three consecutive months.
- The first survey package will be mailed out in October 2004.

5.4 By October 2004, DHS MCAH will set up a fetal-infant mortality expanded surveillance system (FIMESS) to monitor fetal-infant mortality in Los Angeles County in a timely fashion.

Update

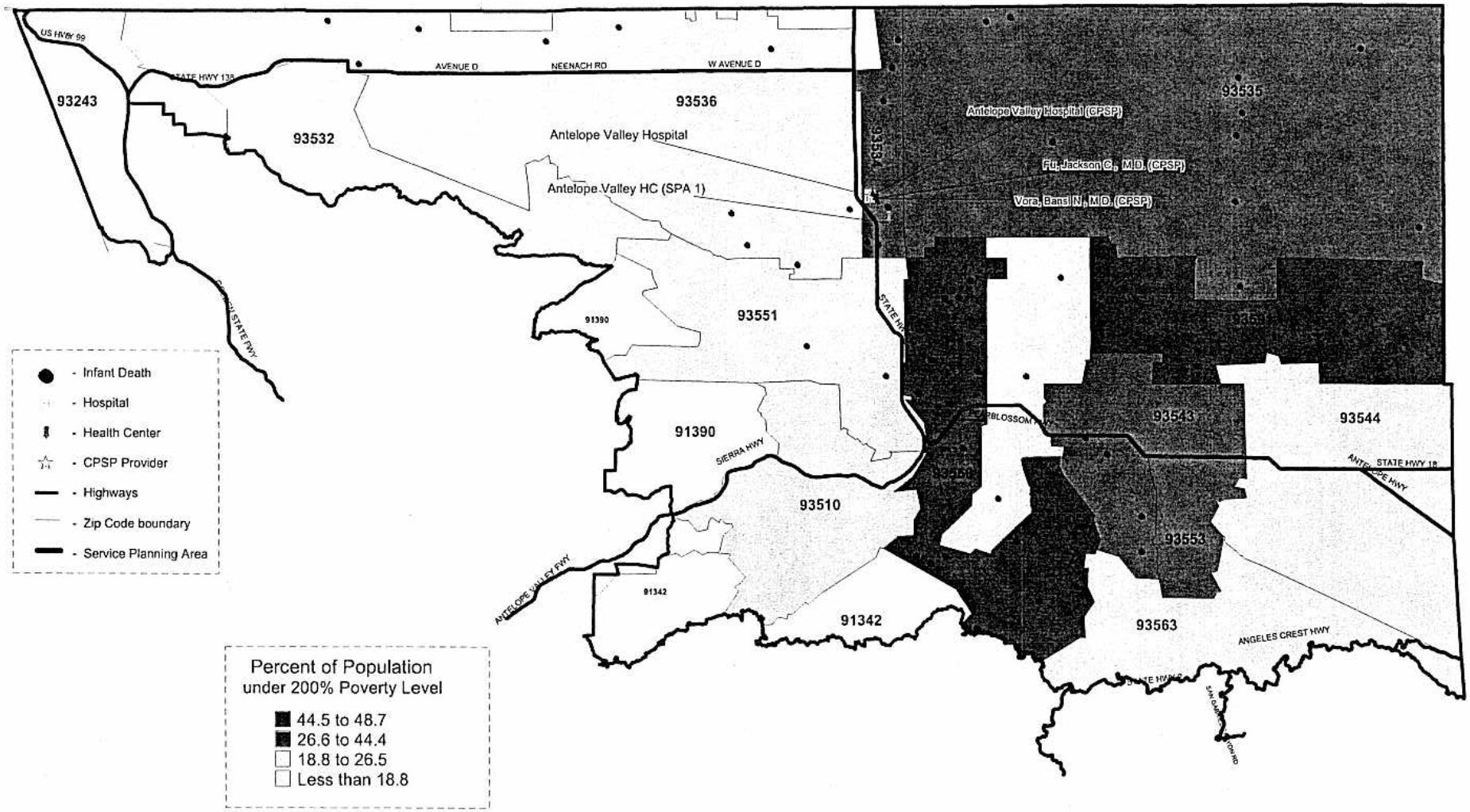
- As of September 1, 2004, we have collaborated with the Data Collection and Analysis Unit in DHS to obtain timely infant death data directly.
- The FIMESS database system design will be completed and the 2004 infant death certificates will be entered by December 2004.
- In January 2005, we will begin to produce reports from these data.

Los Angeles County Department of Health Services

Infant Deaths* in Antelope Valley, Service Planning Area 1

Comprehensive Perinatal Service Programs (CPSP), Hospitals, Health Centers (HC)

Los Angeles County, 2002



Each Infant death case is randomly distributed within the zip code.

* Infant deaths occurring at less than 365 days of age per 1,000 live births.

Source: California Department of Health Services, Center for Health Statistics, Vital Statistics, 2002
Los Angeles County, DHS, Data Collection and Analysis Unit, 2002 Population Estimates Projection, August 2003 Release.

Maternal, Child and Adolescent Health Programs, Research, Evaluation and Planning Unit

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