This report presents findings of a study tour organized by the French-American Foundation, for 13 United States' health care professionals to examine and interpret the nearly 50-year-old French maternal and child health care system, Protection maternelle et infantile (PMI). Chapter 1 describes the operation of PMI and the possibility of similar achievements in the United States. Chapter 2 discusses how maternal and child health are accorded national priority through the creation of four universal partnerships between society and families: health insurance, family allowances, paid maternity leaves, and child care and education. Chapter 3 illustrates the operation of the PMI in two regions in France which, although contrasting in local cultures and politics, are dedicated to the national mission. Chapter 4 describes the responsibility of French employers as partners in ensuring the health and well-being of mothers. It also describes the development of the PMI and the changes in its philosophy over the years. Chapter 5 discusses how PMI agencies identify and assess conditions that pose risks to maternal and child health. Chapter 6 explores home visits offered by PMI agencies to families living with social and medical risks that may endanger a woman's pregnancy or the health of a newborn or young child. Chapter 7 discusses the diverse services and activities offered by a PMI center, ranging from free preventive health care and advice and counseling for parents, to nutrition classes for mothers, and play sessions and summer programs for children. Chapter 8 describes one of PMI's newest responsibilities, to help integrate children with special needs into child care settings. The final chapter examines the strategies employed by the PMI in the four arenas of health promotion—clinic, community, workplace, and home—to encourage and ensure private responsibility. (BAC)
A Welcome for Every Child

How France Protects Maternal and Child Health—
A New Frame of Reference for the United States
ERRATA

Table #1 on page 2, the figure for birth rate in France to women between the ages of 15-19 should read 9.2. (Rates are live births per 1,000 women in specified group)

Table #2 should read "Postneonatal".
A Welcome for Every Child

How France Protects Maternal and Child Health—
A New Frame of Reference for the United States

by Gail Richardson

A Report of the French-American Foundation

National Center for Education in Maternal and Child Health
Arlington, Virginia
A Welcome for Every Child

How France Protects Maternal and Child Health—
A New Frame of Reference for the United States

by Gail Richardson

A Report of the French-American Foundation
Contents

Acknowledgments ............................................................... vi
Preface ............................................................................ ix
1. France Protects Children . . . Can We? .......................... xii
2. Maternal and Child Health: A National Priority ........... 8
3. Universal Mission, Local Control ............................... 14
4. Mothers Protected ....................................................... 22
5. Detecting Risk in Time To Avert It .............................. 28
6. Home Visits Build Families' Competence ................. 34
7. Health Centers Where Families Like To Linger ........... 42
8. Child Care Embraces Health Care ............................. 46
9. A Public Route To Private Responsibility ................. 52

Appendices
   Appendix A: PMI Agency Expenditures in Côte-d'Or
   and Seine-Saint-Denis ................................................... 57
   Appendix B: Maternal and Child Health Care Project .... 59
   Site Visits and Meetings
   Appendix C: Members of the Delegation ..................... 61
   Appendix D: International Board of Directors ............. 62
Acknowledgments

The French-American Foundation is indebted to hundreds of colleagues, friends, and supporters in the United States and France whose generous advice and participation carried the Maternal and Child Health Care Project from its conception through the many challenging stages of its realization. Only the extraordinary willingness of so many to assist our endeavor made it possible.

Four individuals offered vision and guidance as we launched our project, during weeks when, without them, we might not have proceeded. We thank Judith Miller Jones, National Health Policy Forum; C. Arden Miller, School of Public Health, University of North Carolina at Chapel Hill; Victor G. Rodwin, Robert F. Wagner School of Public Service, New York University; and Stuart O. Schweitzer, School of Public Health, University of California in Los Angeles.

Many experts and leaders instructed us on maternal and child health issues in the United States and offered valuable recommendations concerning our inquiry in France. We are grateful to Ronald J. Anderson, Dallas County Hospital District; Susan S. Aronson, Children’s Hospital in Philadelphia; David Bellis, U.S. General Accounting Office; Charlotte Beyerd, Wisconsin Independent Physicians Group, Inc.; Janine Breyel, National Governors’ Association; Sarah Brown, National Research Council; Charles H. Bruner, Child and Family Policy Center in Iowa; Susan Cowell, International Ladies’ Garment Workers’ Union; George Degnon, Association of State and Territorial Health Officials; Harriet Dichter, Pew Charitable Trusts; Daniel M. Fox, Milbank Memorial Fund; David Gignon, National Perinatal Information Center; Rae Grad, National Commission to Prevent Infant Mortality; Birt Harvey, Department of Pediatrics, Stanford University; Donald M. Hayes, Sara Lee Corporation; Catherine A. Hess, Association of Maternal and Child Health Programs; Arnold S. Hiatt, Stride Rite Foundation; Miriam Jacobson, Washington Business Group on Health; Sheila B. Kamerman, School of Social Work, Columbia University; Marie C. McCormick, School of Public Health, Harvard University; Walter A. Orenstein, Centers for Disease Control and Prevention; Barbara Reisman, Child Care Action Campaign; Patricia Riley, National Academy for State Health Policy; Joe M. Sanders Jr., American Academy of Pediatrics; Sarah Shuptrine, Southern Institute on Children and Families; Alan Reed Weil, Colorado State Department of Health Care Policy and Financing; and Barry S. Zuckerman, Boston City Hospital/Boston University School of Medicine.

For their willingness to contribute to our efforts by briefing the delegation before their trip to France, we thank the following experts in French policy, health care, and children’s programs:

Barbara R. Bergmann, Economics Department, American University; Eric Fassin, Institute of French Studies, New York University; Embry Howell, Mathematica Policy Research, Inc.; and Elisabeth Marx, the Rauch Foundation.

Ambassador Pamela Harriman and the American Embassy in Paris gave us guidance for our project and offered generous hospitality in arranging a reception for the American study panel. We also thank Minister-Counselor for Cultural Affairs Robert Korengold; Mary Gawronski, cultural attaché; and Lini Janssens, cultural services.

The early support of Minister of Health, Social, and Urban Affairs Simone Veil ensured our access to many of France’s officials and professionals. Her reception of the delegation brought to our work a dimension of history and humanity that greatly expanded our appreciation of France’s actions on behalf of families and children.

Officials in five French départements gave us critical guidance and support in setting up an itinerary full of diversity and interest. We thank, in Côte-d’Or: Henry Berger, president of the General Council; Christiane Pernet, director of Social and Health Affairs; Philippe Lavault, vice president of the General Council for Social Affairs; and Louis-Marie Chevignard, deputy mayor of Dijon. In Hauts-de-Seine: Julien Bouniol, director of Social Affairs; and Jacques Corbon, cabinet director to the president of the General Council. In Héault: Gérard Saumade, president of the General Council; André Ruiz, vice president of the General Council for Social Affairs; and Thierry Dieuleveu, director of...
The directors and staff of two Paris hospitals introduced us to the many aspects of teamwork between hospitals and neighborhoods that is an essential feature of PMI. We thank especially Jacques Milliez, chief of obstetrics, Saint-Antoine Hospital; and Jean-Marie Cheynier, chief of staff, and Claude Lerat, administrative director, the Metallurgists Hospital.

Emile Papiernik, chief of obstetrics at the Port-Royal Hospital of the Cochin Hospital Group, gave us the benefit of his many years of research on methods for preventing preterm delivery. We are grateful to Dr. Papiernik; to Gérard Bréant, director, and Béatrice Blondel and Marie-Joseph Saurel-Cubizolles, researchers, of Unit 149, Institut national de la santé et des recherches médicales (INSELM); and to Paul Vert, head of the neonatal intensive care service, A. Pinard Regional Hospital of Nancy, for preparing presentations for an important roundtable. We extend special thanks to Director Alain Lepère, Cochin Hospital Group, for his support of this event.

Several eminent physicians also shared their experience and presence over the weeks before and during the PMI mission: Pierre Bégue, head of the emergency ward, Trousseau Children's Hospital; and vice president, national vaccination committee; Michel Mancieux, professor emeritus, pediatrics and public health, University of Nancy, and former senior advisor on maternal-infant health to the World Health Organization; David McGovern, chairman of the board, American Hospital at Neuilly; Claude Sureau, director of medical affairs, American Hospital at Neuilly; and former chief of obstetrics, Port-Royal Hospital. We also thank Dominique Jolly, director, international relations of the Paris public hospital system (Assistance Publique-Hôpitaux de Paris) for his encouragement during the preparation of the mission itinerary.

In Paris, Gérard Lasfargues and Christian Courpotin and their staff at Trousseau Children's Hospital shared their experience of working with children with acquired immune deficiency syndrome (AIDS). On this subject, Alain Danaud of the Association de solidarité avec enfants avec le SIDA (SOLSENS) and Dominique Rosset of the child welfare agency of the City of Paris contributed their views from the nonprofit and the public sectors. In Montpellier, staff of the Lapeyrie Hospital and of the Hérault mental health services shared their experiences in working with the PMI to prevent child abuse. We are grateful to Professors Dumas and Aussilloux, Martine Carraux, and Françoise Molénat and her colleagues.

For organizing seminars to instruct the delegation about the training of midwives and pédiatriques, we extend our gratitude to Anne-Marie Barbier, director, Baudelocque Hospital School of Midwifery; and Colette de Saint-Sauveur, director, School of Pediatrique in Paris.

For enthusiastically opening their sectors to the project over many months, we thank Nadine Frybourg, Nicole Benhamou, Martine Piquet, and Yvette Monfort, directors of the 11th, 12th, and 13th PMI sectors of Paris, and their staffs.

For generously and carefully introducing us to the women and children with whom they work, and their fami-
lies, we thank the midwives and puéricultrices of Paris and Lunel.
Without them we could not have seen for ourselves what PMI means in the lives of individuals.

For receiving us at their factories and organizing meetings with their employees to learn about paid maternity leaves and workplace benefits for pregnant women and parents, we thank Michel Drillet, chief executive officer, Labo Industries in Nanterre; and Arnaud Havard, director of human resources at Belin Biscuit Manufacturers in Evry, a subsidiary of BSN.

Dozens of individuals gave us the benefit of their research and experience before and during our study mission, including Gilles Johanet, Cour des Comptes; Olga Baudelot, Centre de recherche de l'éducation spécialisée et de l'adaptation scolaire (CRESAS); Alain Norvez, Demographic Institute of the University of Paris; Stanley Plotkin and Michel Gréco, Pasteur-Mérieux; Serge Uzan, Tenon Hospital; Jacques Lebas, Médecins du Monde; Marie-Thérèse Chaplain, Ministry of Social Affairs; Catherine Bardin, Boucicaut Hospital; the women of the French Family Planning Movement; the American Women's Group of Montpellier; Pierre Challier, Nina Claude, Evelyne Combier, and Eva and Elle Touaty.

For their extraordinary hospitality, we salute the mayors, municipal employees, and people of Beaune, Gevrey-Chambertin, Lunel, Nuits-Saint-Georges, Saint-Mathieu-le-Tévrier, and Saint-Martin-de-Londres.

The generous investment of the Maternal and Child Health Bureau, Health Resources and Services Administration, Public Health Service, U.S. Department of Health and Human Services, in this project has enabled us to carry our findings in timely fashion to American leaders and policymakers throughout the nation. We thank, in particular, David Heppel of the Maternal and Child Health Bureau for arranging this important contribution. The National Center for Education in Maternal and Child Health, Arlington, Virginia, provided copyediting, design, production, and initial distribution of this report. We thank, at the National Center, Director Rochelle Mayer for her support; Pamela Mangu, director, division of programs, for guidance; Christopher Rigaux, director of communications, for professionalism and patience; and Marcos Ballestero, senior graphic designer.

The French-American Foundation's Paris office provided continuous good counsel, encouragement, and participation throughout the course of the planning and implementation of the project. We extend our sincere gratitude to Michel Jaoul, vice president, and Nicole Choffel, director.

The French-American Foundation wishes to express its appreciation for the generous financial support for this work provided by the United States National Board of the French-American Foundation, its French-American Council, and the following individuals, corporations, and philanthropies:

The Achelis Foundation
American Airlines
The American Society of the French Legion of Honor

Carnegie Corporation of New York
Dr. Joan R. Challinor
Corning Incorporated Foundation
Damien Foundation
The Development Group, Inc.
Equitable Foundation
France Telecom, Inc.
Galeries Lafayette
The German Marshall Fund of the United States
The Gutfreund Foundation
The Harris Foundation
LaFarge Coppée
LaFarge Corporation
City of Paris, France
G. D. Searle and Company
The Seth Sprague Educational and Charitable Foundation
The Tides Foundation
U.S. Department of Health and Human Services, Maternal and Child Health Bureau

Florence H. Van Der Kemp
The Woodcock Foundation
Preface

America has at its disposal a wealth of resources in the talent and capability of its health care professionals and institutions. These resources attract patients from around the world who avail themselves of our leading-edge technology and medical expertise. At the same time, nearly half of all American children under three years of age confront one or more major risks to health and well-being; over one-quarter between 19 and 35 months of age lack all recommended inoculations. Ironically, these services are often readily available, yet we frequently fail to deliver them efficiently and effectively.

The French-American Foundation recognized that France has dramatically reduced premature births, infant mortality, and maternal complications, and has increased inoculation rates, prenatal care, and preventive health exams. We sought to analyze the systems that produced these outcomes. As part of our continuing efforts to explore ways in which the two countries can learn from one another, we organized a study tour for 13 United States' health care professionals to examine and interpret the nearly 50-year-old French maternal and child health care system, Protection maternelle et infantile (PMI).

PMI ensures the universal delivery, by private and public providers, of basic preventive health services to pregnant women, infants, and children through the age of six. Much of PMI's success is due to its reliance on private-sector medicine, which is linked to and overlapped by social services, decentralized structures of community surveillance and risk assessment, close ties to child care and education, and parent education and outreach. These systems of prevention help avoid the high costs of treatment through early detection. PMI, Europe's only preventive health system dedicated solely to mothers and young children, represents only about 0.3 percent of the total French expenditure on health care and a modest per capita cost.

PMI first came to the attention of the French-American Foundation in 1989, when we asked a delegation of early childhood education experts and leaders to study French child care and education. Their findings, reported in A Welcome for Every Child: How France Achieves Quality in Child Care—Practical Ideas for the United States, included observations about critical links between PMI and child care.

Our techniques of organization and inquiry resembled those that proved successful in our earlier project. We assembled a delegation of experts and leaders, each of whom brought a unique combination of knowledge and experience in fields related to the practice, study, delivery, and financing of maternal and child health care. Each also brought strong collegial ties with decision-makers in professional associations, hospitals, managed care health plans, insurance, social service agencies, national commissions and philanthropies, and federal, state, and local governments. Thus, the delegation selection process laid the groundwork for reaching broad audiences with useful findings at the mission's conclusion.

To develop the trip itinerary, the French-American Foundation worked closely for six months with French national leaders and with dozens of French officials, professionals, and experts in five jurisdictions. We conveyed to them the essential questions and conditions of American maternal and child health and, with their generous cooperation, we developed an itinerary that resonated directly to the delegation's interest in seeing a variety of PMI settings and practices in several cities and regions of the country.

The delegation visited France for two weeks in January 1994. They traveled to the urban départements of Paris, Hauts-de-Seine, and Seine-Saint-Denis, and the rural regions of Côte-d'Or in Burgundy and Hérault on the Mediterranean coast. Delegation members observed physicians, midwives, and nurses at work in neighborhood clinics, hospitals, preschools, child care centers, administrative bureaus, and more than three dozen homes. They interviewed French employers, researchers, and local officials. Minister of Health, Social, and Urban Affairs Simone Veil honored the delegates with a meeting.

The delegation found in France a country at a level of economic development similar to our own, but with a stronger public commitment to families and children. They also saw a country facing the familiar challenges of rising medical and social expendi-
tured due, in part, to growing social problems linked to unemployment and poverty.

At the conclusion of the study mission, the delegation was enthusiastic about many elements of PMI that were compatible with United States' policies and practices and could thus be imported. PMI presents a valuable model of an advanced maternal and child health care system, on a national scale and within a universal health insurance program, for which we, as yet, have no counterpart. The delegates concluded that many innovative American programs and initiatives might well be combined or restructured more effectively to help reach a goal of providing basic preventive health care to every mother and child in the country.

We are pleased that a small organization such as ours has been able to carry out such an ambitious project. Thanks are due to all in the French-American Foundation who worked on it, but most of all to Gail Richardson. The talent and energy she committed to this project and report provided the central element that made our ambitions a reality.


We hope our findings in this report will stimulate national interest and discussion. We expect the findings, following the pattern of earlier work, will help to spur important actions at federal, state, and local levels. The very strong interest and influence of the professional team members in the first project enabled us to reach significant national and regional audiences, bringing them the ideas and practices contained in our first report. With the publication of this report, we will mount a similar national education effort with the help of the members of our second distinguished delegation.

At the end of our study tour, one of the delegates said, "... the PMI system not only works well for France, it is the right thing to do for all children." We hope this report illuminates how basic health services can be provided for all mothers and children in the United States... around the corner, across the nation.

Edward Hallam Tuck, President
The French-American Foundation
"The Carnegie Task Force on Meeting the Needs of Young Children recently issued a landmark report, Starting Points, emphasizing the need to invest in children at an early age. In France, I saw that it is possible to go beyond a fragmented system, an 'alphabet soup' collection of programs, to a system of care that protects children from preventable conditions that impair their health and well-being. There are programs in the United States that are similar to those we saw in France. Our national goal should be to expand these programs so all children can benefit."

Barry S. Zuckerman, M.D.
Professor and Chairman, Department of Pediatrics
Boston City Hospital/Boston University School of Medicine

"Within a system of universal coverage and access to care, the French have recognized the need for an explicit public focus on the needs of women and children, one that works in close partnership with the private delivery of care."

Lisa Simpson, M.B., B.Ch., M.P.H.
Senior Advisor to the Administrator
Agency for Health Care Policy and Research
U.S. Department of Health and Human Services
France Protects Children . . . . Can We?

Children in France begin life with excellent prospects for healthy growth and development. Ninety-six percent of French children are born to mothers who receive early prenatal care (see table 1). Preterm births, low birthweights, and infant mortality in France occur in proportions that meet or come closer to the goals established in Healthy People 2000 than does the United States (see table 2). Only 4.6 percent of French children live in poverty. All but a minuscule fraction of children live in families that receive universal health insurance, paid maternity leaves, and family allowances to help meet the costs and responsibilities of childrearing. By age two, more than 90 percent of children receive all required immunizations (see table 3). From ages three to five, nearly all children attend, either part- or full-time, a preschool system of internationally recognized quality, at little or no cost to parents.

Similar achievements are possible for American children. Already in place are expanded health insurance for low-income families in a number of states, federal income tax credits for both low-income and middle class families, a national family and medical leave law, and a national education reform that commits the country by the year 2000 to prepare every child to enter school ready to learn. Yet, according to the Carnegie Task Force on Meeting the Needs of Young Children, nearly half of all American children under three years of age face one or more major risks to health and well-being: poverty, inadequate prenatal care, isolated parents, insufficient stimulation, and substandard child care.

To reverse this neglect requires investments by all sectors of society on a larger scale than we have heretofore agreed to undertake. Just as important—for we can afford to protect our children—we must answer the question of how to invest public and private resources most effectively to the benefit of all children and families. The question is equally urgent whether posed about a community, a city, a county, a state, or a nation.

For nearly half a century, France—a country one-fifth the size of the United States with a
Maternal care begun in first trimester
96% 76.2% 90%

Total number of births
762,407 4,110,907

Birth rates, women 15-19 years
2.4 62.1

Births to unmarried women
31.8% 29.5%

Preterm births
4.8% 10.8%

Cesarean delivery
14.1% 23.5% 15%


Note: France does not measure and evaluate components of its system as we are accustomed to doing in the United States. Indeed, the philosophy and practice of linking and joining services for children defies any easy disentanglement of the elements or their specific impact. However, in global terms, using national data, France has nearly achieved or exceeded several key goals for pregnant women and young children established by Healthy People 2000.

---

TABLE 2. Infant Vital Statistics 1991 Data

<table>
<thead>
<tr>
<th>Infant</th>
<th>France</th>
<th>USA</th>
<th>Year 2000 Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>% live births &lt; 2,500 grams</td>
<td>5.7</td>
<td>7.1</td>
<td>5</td>
</tr>
<tr>
<td>% live births &lt; 1,500 grams</td>
<td>0.5</td>
<td>1.3</td>
<td>1</td>
</tr>
</tbody>
</table>
| Mortality rates per 1,000 live births
  Infant | 7.3    | 8.9 | 7               |
  Neonatal | 3.5    | 5.6 | 4.5             |
  Postnatal | 3.8    | 3.4 | 2.5             |


Note: Infant mortality denotes deaths of infants under one year; neonatal mortality denotes deaths of infants under 28 days; postnatal mortality denotes deaths of infants aged 28 days to one year.
TABLE 3. 1992 Immunization Rates for Required and Recommended Vaccines

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>France (at 24 months of age)</th>
<th>United States (at 19-35 months of age)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REQUIRED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis (BCG)</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Diphtheria &amp; Tetanus (3 doses)</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Polio (3 doses)</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>Whooping Cough* (Pertussis)</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>MMR</td>
<td>40</td>
<td>80</td>
</tr>
<tr>
<td><strong>RECOMMENDED</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tuberculosis (BCG)</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Diphtheria &amp; Tetanus (3 doses)</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Polio (3 doses)</td>
<td>80</td>
<td>90</td>
</tr>
<tr>
<td>Whooping Cough* (Pertussis)</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>MMR</td>
<td>40</td>
<td>80</td>
</tr>
</tbody>
</table>

Sources: France: Bureau des Vaccinations, Direction générale de la santé, September 1994.

Notes: In France, required vaccinations have a different legal status than recommended vaccinations. The costs of the former are fully reimbursed; compliance is linked with cash incentives; and being up-to-date is a condition of admission to child care and education programs. The BCG vaccination is mandatory only when children are exposed to or enter group settings like child care; thus 78 percent coverage of two year olds represents nearly all of those for whom the vaccination is required. MMR is currently a recommended vaccination, but its levels have risen rapidly during the past decade due to extensive public education efforts.

a. In the United States, diphtheria, tetanus, and pertussis are generally administered together.
comparable standard of living (see Table 4)—has developed solutions to a similar global question by giving national priority to women of childbearing age and children under the age of six. This priority involves and shapes major policies and programs in health and medical insurance, child care and education, and family allowances. Weaving together all of these elements, and offering a clear vantage point on them, is a private-public system of preventive health strategies known as Protection maternelle et infantile (PMI).

Founded after World War II to combat infant mortality and morbidity, PMI marked the critical passage of French child and family policy from "charity for the poor" to "protection for all." Over the years, PMI broadened its scope to emphasize health promotion through preventive care, family education, and early assistance to women, children, and families at risk of impaired health or development due to sociomedical factors. PMI is simultaneously a national consensus, a professional ethic, an approach to social policy, a series of specific services and assistance, which all women and children are entitled, and a network of decentralized public health agencies, under local control, that gives special attention to families in greatest need. No single agency, institution, or philosophy dominates PMI. Even pronatalism, long a hallmark of French social policy, is now only one receding theme in a national commitment that encompasses all political persuasions, all geographic regions, and all classes of society.

PMI operates principally through the private sector, where families and private practice physicians individually arrange for the maternal and child health services of preconceptional counseling, family planning and education, early and regular prenatal care, and preventive health examinations and vaccinations for children from birth through age six. Full reimbursement of these services by national health insurance, financial incentives, and informational campaigns have encouraged and educated French families to assume the major responsibility for PMI in France.

PMI also involves public sector accountability for women and children, who, for various reasons may not take advantage of available preventive health, medical, social, and educational services. This accountability is exercised through 96 locally controlled public health agencies, one in each French département, a territorial jurisdiction that ranges in population from more than 2.5 million to fewer than 100,000. Local PMI agencies track the health status of maternal and child populations; identify and target for assistance pregnant women and children at risk; conduct home visits; run neighborhood clinics that offer free family planning services, prenatal care, and preventive health care for children; and contribute significantly to building the infrastructure of training, monitoring, and other support for infant-toddler child care. Total public expenditures through local PMI budgets in 1992 amounted to approximately $63 per child under six years of age and represent a small fraction of the cost of privately arranged preventive health care services.

The French PMI is of compelling interest to Americans because it truly is a system of preventive maternal and child health care. It includes many components and features in private and public sectors that the United States could match or exceed in
quality of design and degree of effectiveness. Yet, in contrast to achievements in the United States, at any level of government or society, the French PMI brings good services and programs within the reach of all women and children in each geographic region.

We could not, within the limits of this study, evaluate the impact of individual PMI practices on the health status of women and children. (The French themselves have very few studies of outcomes.) Nor can we attest to the representativeness of the five départements we visited or the clinics, schools, and homes we entered.

Yet we enjoyed extraordinary access to the diverse components of and participants in PMI. We met hundreds of individuals in three major regions of France, in settings ranging from miserable squats to ministerial halls. We talked to and observed in everyday activities children, parents, midwives, nurses, physicians, child care providers, physical therapists, preschool instructors, social workers, administrators, psychologists, and public officials. Our roundtables with

### TABLE 4. France Compared to the United States in Population, Income, and Selected Public Expenditures

<table>
<thead>
<tr>
<th></th>
<th>France</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>57M a</td>
<td>255M b</td>
</tr>
<tr>
<td>Birth rate</td>
<td>14 per 1,000 population c</td>
<td>16 per 1,000 population c</td>
</tr>
<tr>
<td>Children &lt; 6</td>
<td>8% of population (4.5M), 1991 b</td>
<td>9.1% of population (23M)</td>
</tr>
<tr>
<td>Mothers employed</td>
<td>66% d</td>
<td>67% d</td>
</tr>
<tr>
<td>with youngest child 0-3</td>
<td>59.3% e</td>
<td>55%</td>
</tr>
<tr>
<td>with youngest child &lt; 6</td>
<td>64% (estimate)</td>
<td>58%</td>
</tr>
<tr>
<td>with children 6-17</td>
<td>74%</td>
<td>76%</td>
</tr>
<tr>
<td>Per capita GDP f</td>
<td>$18,277</td>
<td>$22,204</td>
</tr>
<tr>
<td>Health care expenditures per capita</td>
<td>$1,650</td>
<td>$2,867</td>
</tr>
<tr>
<td>Health care expenditures as % of GDP</td>
<td>9.1</td>
<td>13.4</td>
</tr>
<tr>
<td>Total tax receipts as % of GDP</td>
<td>43.7</td>
<td>29.9</td>
</tr>
</tbody>
</table>

Sources:
experts in social policy and finance, medical and health affairs, economics, law, and humanitarian issues included frank exchanges about both the successes and shortcomings of PNII. We observed and learned about several current PMI areas of concern: to build more capacity in rural areas, set clearer priorities for the delivery of urban services, and expand programs of family education and prenatal care. We believe that PMI is effective as a system and, like any system, can be improved.

Americans command the knowledge, experience, and professional leadership to create our own version of PMI. What we lack is the political consensus needed to move us forward.

One element that may help to build understanding and will is a picture of how one effective national system operates. With this goal in mind, we present a brief portrait of the entire French PMI.

Like a work of architecture, PMI cannot adequately be observed from one angle or point of view. Thus we use the various chapters to provide multiple, overlapping perspectives on PMI in an attempt to capture its many dimensions.

- PMI is a national sociomedical system for health promotion and preventive care that coordinates medical, social, education, and financial services to families.
  
(Chapter 2)
PMI includes 96 independent, locally controlled health agencies that carry out a double mission of universal surveillance of maternal and child health and targeted assistance to families and children at risk. (Chapter 3)

PMI programs in private and public sectors protect and strengthen mothers through family planning and prenatal education, the prevention of preterm deliveries, and paid maternity leave. (Chapter 4)

Local PMI agencies, working closely with physicians in private practice and community agencies, identify for special assistance pregnant women and children who confront serious psychological, social, and medical risks. (Chapter 5)

PMI staff use home visits to pregnant women and children at risk to educate, encourage, and assist families to seek out and use a variety of available community services as indicated by needs and interests. (Chapter 6)

PMI centers in neighborhoods offer free preventive health care while building informal social networks and offering information and activities that prepare families to care responsibly for their children. (Chapter 7)

Child care and education programs include many PMI components, such as the integration of children with special needs; health exams for all four year olds in preschools; and a variety of monitoring, surveillance, and training links between infant-toddler care and local PMI agencies. (Chapter 8)

PMI public policies promote individual responsibility through carefully coordinated strategies focusing on four major arenas of preventive health action: clinic, community, workplace, and home. (Chapter 9)
"The French PMI health care system can be seen as an umbrella that covers all mothers and children, with special attention to monitoring high-risk populations. Our current system often seems a maze to those who seek health services. The complicated eligibility requirements for programs can prevent those who are most in need from receiving critical preventive health care."

Charlene Rydell  
Member, Maine House of Representatives  
Chair, Perinatal and Child Health Steering Committee, National Academy of State Health Policy

“One very evident strength of the French maternal and child health system is that while there is in place a set of responsibilities based on legal requirements and borne by parents, health care professionals and institutions, public agencies, and employers, there is also a high level of productive linkages between the parties to what in essence is a national compact. This national commitment is directed not just towards enhancing maternal and child health but also to promoting the family unit as the core structure of French life."

John V. Federico, M.D.  
Medical Director, Clinical Policy  
Aetna Health Plans
Maternal and Child Health: A National Priority

At birth, every child in France receives the carnet de santé, an 80-page health notebook that is both symbol and instrument of the national commitment to protect the health and well-being of all mothers, children, and families in the nation. The notebook, uniform throughout France, informs parents of their responsibility to promote their child's health and well-being, especially through compliance with a series of preventive examinations and vaccinations during the child's earliest years.

Parents take pride in the carnet as a badge of honor and a record of good parenthood. Whenever they take their child to visit a doctor, parents bring the carnet. In it, physicians record their observations, diagnoses, and treatments. After each of three health supervision visits, as stipulated in national guidelines, the examining physician sends a health certificate contained in the notebook's back pocket to the local PMI agency. The agency reviews the certificate for risk factors and offers assistance to families who need extra support to fulfill their responsibilities to children.

This cycle of national commitment, parental responsibility, medical care, and community-based accountability (that runs from family to physician to local PMI agency and, as needed, back to the family again) captures in simple form the dynamic of the entire French system of maternal and child health protection. A full portrait of PMI would contain many additional loops extending to employers, labor unions, hospitals, nonprofit associations, several government agencies, and elected officials. In spite of the complexity of the practices it guides, the animating vision of maternal, child, and family well-being in France is clear and direct. The vision emphasizes the capacity of each child for physical, mental, emotional, and social development, and recognizes that families and society are partners in raising the next generation.

Underlying PMI, and making possible its effectiveness, are four universal partnerships of society with families: health insurance, family allowances, paid maternity leaves, and child care and educa-
National health insurance provides full reimbursement for all services of preventive maternal and child health care that families are educated to use by legal guidelines. Maternity insurance fully reimburses the hospital costs of giving birth. In order to qualify for maternity insurance, women must register their pregnancies by the 15th week of gestation. Ninety-nine percent of French

---

**Pierre Challier: Private Practice Pediatrician**

Pierre Challier, 40, is a pediatrician in a private group practice in Meaux, 30 miles east of Paris. He typically meets his youngest patients within days after discharge from the only maternity ward in this small city. He and other physicians in private practice provide most of the preventive care for women and children in the French PMI system.

After completing a 9- or 24-month health supervision examination, Challier transmits to the local PMI agency a certificate contained in the child's *carnet de santé*. For Challier, the *carnet* is central to the success of the infant health care system.

"Like all my colleagues, I keep parallel records," Challier says, "but the *carnet* lets me know that any doctor who sees my patient on vacation, at the hospital, or when I cannot be reached will have the child's medical history in hand.

"Parents take the *carnet de santé* seriously. It's a clear reference document for them and attests to their participation in the system. When a *carnet* is poorly kept, it signals to me that the child may need special attention in order to receive routine care."

Approximately 3 percent of Challier's clientele in this middle class town cannot afford the copayments for health care when a child is sick as required by the national health insurance procedures. In these cases, a local medical fund for people who are indigent reimburses Challier.

"Private pediatricians also do PMI," says Challier. "While we have little contact with the public PMI agency, the existence of a safety net whose anchor points are known to all of us helps us to do our part to make sure that all children in our town receive primary care."

Challier, a former chief resident in a major Parisian children's hospital, reflects, "Pediatrics has become so specialized that most residents in the field are now training in cardiology, neonatology, and gastrology. Town pediatricians have to go it on their own once they enter private practice. But we know that we are part of a national infrastructure defined in the child's interest. And we know who our partners are."
citizens and legal residents are covered by one of several employer- and employee-financed Sickness Funds for a full range of medical and health benefits. Individual copayments average 25 percent of the cost of service but vary greatly from 0 percent for preventive maternal and child health care (and other special categories like cancer treatment) to 60 percent for some medications. Private medical insurance helps to finance the copayments for more than half of French families, and locally administered medical aid funds finance care for indigents.

Private practice physicians provide about 90 percent of preventive maternal and child health care and send child health certificates corresponding to eight-day, 9-month, and 24-month examinations to the local PMI agency for review and analysis. Physicians in private practice provide virtually all ambulatory care in France, for which payment is required at time of service and reimbursement occurs later. They are a source of data and referrals to local PMI agencies that offer additional assistance to families at risk.

Public hospitals are legally obligated to provide free care, including preventive maternal and child health care, to all who present themselves in need. Public hospitals include France's most prestigious centers of research and high technology and include approximately two-thirds of short-term beds.

The Family Allowance system offers a young child allowance of $141 per month from a woman's fourth month of gestation through a child's third month of life, as an incentive to promote family compliance with national guidelines for prenatal and young child preventive health care. The allowance is extended through a child's third year for families of low and modest income, and benefits about three-quarters of young French families. The young child allowance is one of 15 cash benefits to help defray the costs of bearing and raising children. These allowances include a cash benefit to all families with two or more children as well as allowances to offset costs of housing, certain types of child care, and single parenthood. Approximately 43 percent of the total allowances are not means-tested; the remaining 57 percent provide extra resources to low-income households to help lift families out of poverty (see tables 5-7).

Universal paid maternity leaves with job security protect the health of expectant mothers and promote mother-child bonding, a foundation of healthy child development. All French women are entitled to a minimum of 16 weeks of paid leave for a natural birth, and 10 weeks for an adoption, at 84 percent of their salary level (subject to a ceiling) and with job security. Leaves are financed by employer and employee payroll deductions.

Child care and education programs require up-to-date vaccinations for admission, arrange for health
examinations for all four year olds, and are increasing their capacity to integrate children with special needs. A century-old public preschool system, the école maternelle, serves virtually every three, four, and five year old in France at low or no cost to parents. Public policy and subsidies also support the development of quality infant and toddler care in centers and family child care, which, nonetheless, has not yet caught up with the demand created by the rising participation of women in the workforce. All forms of child care and education have strong links to preventive health care.

Almost every family uses these systems because they are universal and carry no stigma. Nevertheless, a growing number of families in France, for reasons of poverty, isolation, illness, disorientation, or several of these problems combined, do not participate in the partnerships (such as

<table>
<thead>
<tr>
<th>TABLE 5. Poverty Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Poor</strong></td>
</tr>
<tr>
<td>France '84</td>
</tr>
<tr>
<td>% poor, pre-transfer</td>
</tr>
<tr>
<td>% poor, post-transfer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 6. Poverty Rates for Children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Poor Children</strong></td>
</tr>
<tr>
<td>France '84</td>
</tr>
<tr>
<td>% poor children, pre-transfer</td>
</tr>
<tr>
<td>% poor children, post-transfer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 7. Poverty Rates for Children in Single-Parent Families</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Percentage</strong></td>
</tr>
<tr>
<td>% Pre-tax and transfer income</td>
</tr>
<tr>
<td>% Post-tax and transfer income</td>
</tr>
<tr>
<td>% Change</td>
</tr>
</tbody>
</table>

Sources: Smeeding, T.M. Why the U.S. Antipoverty System Doesn't Work Very Well. Testimony before the U.S. Congress Joint Economic Committee, September 25, 1991; Project Director, Luxembourg Income Study, Syracuse University, Syracuse, NY.

Notes: Data is based on definition of children as ≤ 17 years. A chief reason why more children are poor in the United States than in other industrialized countries is that American tax and income-transfer policies lift relatively fewer children out of poverty. In France, for example, nearly as many children as in the United States are born into families whose pre-tax and pre-transfer income is at or below 40 percent of the national median. However, after direct taxes, negative taxes (such as the U.S. Earned Tax Credit), and transfers (such as U.S. food stamps and French family allowances), the U.S. child poverty rates decline by only 2 percent, whereas the French child poverty rates decline by more than 16 percent.

The poverty line is set at 40 percent of the median income by the Luxembourg Income Study, the source of these data, because it is close to the official definition of poverty in the United States.
health insurance) that society offers. French experts estimate that as many as 5 or 6 percent of citizens and legal residents who are entitled to universal benefits fail to receive them, usually for want of human contact and encouragement. Other families, who receive the services to which they are entitled, require additional assistance to overcome risks that strain their capacities and render them vulnerable to exclusion—a French term meaning isolation from the human bonds and material supports of society. Finally, undocumented immigrant families, who are not eligible for most family benefits, often remain unaware that pregnant women and young children, whatever their legal status, are entitled to free preventive health care.

To respond to the needs of these families and to exercise vigilance for the well-being of all families, the French PMI uses local agencies, one organized by each département. The functions of these agencies crisscross the domain of the major universal systems, filling in gaps and making links that have been discovered through experience to meet the changing needs of families and young children.

What a Young French Family Earns, Pays in Taxes, and Receives in Maternal and Child Health—and Child Care—Benefits

Sylvie, a secretary, and her husband Bruno, a bank clerk, live in Paris. When they discovered in early 1993 that a child was on the way, Sylvie was earning the equivalent of $14,700 in take-home pay and Bruno was earning $16,600. As participants in the French social security system (Sécu), their take-home pay reflects prior employer and employee deductions for health insurance, retirement pensions, unemployment insurance, and family allowances. The employer's contribution is 45 percent and the employee's is 19 percent of the total cost of the employee. In addition, Sylvie and Bruno pay an income tax equal to approximately 12 percent of their take-home pay.

Sécu participation entitled Sylvie to full reimbursement for prenatal care, fully covered hospital expenses (about $2,500), and 16 weeks of maternity leave at $1,000 monthly pay (instead of her normal $1,200). When their baby Antoine needs preventive health care, including vaccinations, Sylvie and Bruno are fully reimbursed for the cost. The entire family has health coverage for a range of services, with average copayments of 25 percent.

Sécu participation also entitled the expectant family to a young child allowance, which was paid from the fourth month of Sylvie's pregnancy through the third month after birth, for a total of nearly $1,300 over nine months. Because they have a modest income, Sylvie and Bruno will receive an extension of this allowance equal to $141 per month through Antoine's third birthday. If they have a second child, Sylvie and Bruno will receive between $100 and $145 per month from the National Family Allowance Fund until their youngest child reaches the age of 16.

When Sylvie returned to work in early 1994, she and Bruno placed Antoine in a municipal nursery, where the average cost per child for 11 months per year is $8,800. Thanks to subsidies from the municipality and the Family Allowance Fund, they pay about $3,300, or 35 percent of the cost. During the 12th month, Sylvie and Bruno take their legal four weeks of vacation and care for Antoine themselves.

When Antoine is about three years old, Sylvie and Bruno will enter him in the école maternelle in their neighborhood. Now the costs are lower, only $450 per year for lunch and before- and after-school programs. The national and local governments share the remaining cost of the école program. This publicly funded portion, on a national basis, averages $1,950 per child per year.

Note: The dollar equivalents have been calculated using OECD's 1993 $ppp conversion rate of 6.54 francs to the dollar, which takes account of differences in cost of living.
"The United States, not having experienced the same degree of social disruption from war and occupation as France, has not yet acknowledged the need for family-supportive social policy. We are, however, experiencing enough social disruption—from new and poorly understood causes—to make feasible the consideration of new policies. We perhaps can learn from France that a social policy that cherishes children grows out of protective programs, and not the other way around."

C. Arden Miller, M.D.
Professor of Maternal and Child Health
School of Public Health
The University of North Carolina at Chapel Hill
Universal Mission, Local Control

Seine-Saint-Denis, which borders Paris on the northeast, is a crowded urban département of 1.4 million residents. Home to families of dozens of nationalities, including large communities of North and sub-Saharan Africans, Seine-Saint-Denis has a long tradition of leftist politics. Less than two hours by train to the southeast lies Côte-d'Or, a département of 500,000 in the heart of historic Burgundy. The region's famous vineyards date from Roman times, but its visible affluence is scarred by pockets of rural poverty. Its political traditions are conservative.

These two départements illustrate the contrasts in local culture and politics found throughout metropolitan France. Yet each operates a strong PMI agency dedicated to the national mission of protecting the health and well-being of women of childbearing years, expectant mothers, and children from birth to age six.

The shared principles that animate local PMI agencies, one in each département, transcend local differences, even though these differences strongly influence each agency's origins, size, and priorities. Seine-Saint-Denis, which is considered by many to be the cradle of PMI, had a long history of labor union health clinics before founding its PMI agency in 1945. It is a national leader in lowering infant mortality through preventive care. Although Côte-d'Or did not create its PMI agency until 1972, it has been a pioneer in developing a program of preventive health exams in the école maternelle. On a per child basis, the PMI of Seine-Saint-Denis spends triple the amount of Côte-d'Or, but both départements greatly exceed the national average (see tables 8 and 9).

National laws codify the mission and structure of local PMI agencies. Since 1945, PMI legislation has undergone several modifications and expansions to
TABLE 8. PMI Agency Expenditures and Priorities in Two French Jurisdictions

<table>
<thead>
<tr>
<th></th>
<th>Côte-d'Or</th>
<th>Seine-Saint-Denis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total annual PMI Expenditure a</td>
<td>$3,667,000</td>
<td>$37,954,000</td>
</tr>
<tr>
<td>Annual PMI Expenditure Per Child &lt; 6 b</td>
<td>$90</td>
<td>$273</td>
</tr>
</tbody>
</table>

Proportion of Total PMI Budget

<table>
<thead>
<tr>
<th></th>
<th>Côte-d'Or</th>
<th>Seine-Saint-Denis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family planning and education c</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td>Maternal health care in PMI centers and home visits</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>Child health care in PMI centers and home visits</td>
<td>33%</td>
<td>52%</td>
</tr>
<tr>
<td>Child care and education</td>
<td>43%</td>
<td>13%</td>
</tr>
<tr>
<td>Administration</td>
<td>3%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Sources: PMI agencies of Côte-d'Or and Seine-Saint-Denis. See Appendix A.

Notes: a. Includes significant staff costs for social workers in all categories except administration. Social workers are paid by another agency and work with the PMI under an interagency contract.
b. This refers to the entire population of young children in the PMI jurisdiction. The national average annual PMI expenditure is $63 per child under 6.
c. Includes modest expenditures for diagnosis and treatment of sexually transmitted diseases that are financed through another budget.

TABLE 9. Public Expenditures on Maternal and Child Health Care in France

<table>
<thead>
<tr>
<th></th>
<th>1992 Total (millions)</th>
<th>% of Total French Health Care Expenditures</th>
<th>Per Capita Expenditures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protection Maternelle et Infantile (PMI)</td>
<td>$282</td>
<td>0.3</td>
<td>$63 per child under 6</td>
</tr>
<tr>
<td>Total public sector expenditures for preventive health care, including PMI</td>
<td>$2,026</td>
<td>2</td>
<td>$35 per person</td>
</tr>
</tbody>
</table>

Source: Service des statistiques, des études et des systèmes d'information (SESI), Comptes nationaux de la santé, June 1993. Ministère des affaires sociales de la santé et de la ville.

Notes: The public budget for the local PMI services in France represent a minuscule fraction —0.3%— of total national health care expenditures and only 15 percent of the total public sector expenditures on preventive health. The much larger expenditures on maternal and child health care through the private sector cannot be isolated from France's global health care expenditure data.

The franc to dollar conversion factor is the OECD's SPPP rate for 1992 of 6.55 francs per dollar.

The French population is 57 million; the U.S. population is 255 million. The number of children under 6 is 4.5 million in France; 23 million in the United States. See sources in Table 1.
adjust to the changing conditions of society and families. As the national framework has evolved, the priorities of local agencies have shifted. In the 1940s and 1950s, PMI agencies strove to eliminate hunger and suppress infectious diseases. Today, the focus of local agencies is to weaken the links between socioeconomic deprivation and poor health of children, reduce the number of preterm deliveries, assist children with special needs to find their rightful place in families and communities, and avert the risk of child abuse.

All local PMI agencies consider themselves sociomedical teams and employ a variety of preventive health, social, and educational techniques to promote maternal and child well-being. The agencies aim to strengthen and support families in exercising responsibility for their own children. Although proscribed by law from offering diagnostic and treatment services, PMI staff in neighborhood clinics do perform such services for children with acute illnesses who have no other source of health care. Authorities largely ignore these technical infractions.

PMI teams are collaborative and multidisciplinary. Originally consisting of part-time (often volunteer) physicians and social workers, today's PMI agencies have a core staff of 10,115 professionals throughout France, according to 1991 data collected by the PMI Bureau in the Ministry of Social Affairs. PMI has 1,108 physicians (full- or part-time) with guaranteed employment, who are agency directors and administrators of geographic sectors within départements. An additional 4,021 physicians work under short-term contracts, typically to provide preventive care in PMI clinics and conduct health screenings for children in the école maternelle. Also, 566 midwives make home visits to women with at-risk pregnancies and offer preventive care in PMI health centers. The agencies' 3,402 puéricultrices visit homes where children may be at risk, and direct and help staff PMI centers; 1,037 nurses work in PMI centers and, in regions where there are shortages of puéricultrices, conduct home visits. Puéricultrices and midwives who work for PMI earn salaries comparable to those paid by hospitals, but physicians in the PMI earn much less than a private practice pediatrician (see table 10).

Thousands of social workers also have major PMI responsibilities.

.. image:: file.png

Thousands of social workers also have major PMI responsibilities. Primarily when issues of access to medical insurance, child custody, child abuse, or other legal questions arise. However, social workers are usually employees of the local child welfare agency, which contracts their services to the local PMI agency. Therefore, social workers do not appear in the official PMI staff tallies. Increasingly, psychologists, family
TABLE 10. Annual Average Take-Home Salary for PMI Staff and Other Medical Professionals in Paris, 1993

<table>
<thead>
<tr>
<th>Professions</th>
<th>Annual Salary (Thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospital medical secretary</td>
<td>16.8</td>
</tr>
<tr>
<td>PMI paediatric nurse</td>
<td>17.5</td>
</tr>
<tr>
<td>Hospital resident</td>
<td>18.3</td>
</tr>
<tr>
<td>Hospital nurse</td>
<td>18.6</td>
</tr>
<tr>
<td>PMI sector midwife</td>
<td>20.7</td>
</tr>
<tr>
<td>Hospital midwife</td>
<td>22.9</td>
</tr>
<tr>
<td>Hospital chief resident</td>
<td>22.9</td>
</tr>
<tr>
<td>PMI doctor</td>
<td>24.7</td>
</tr>
<tr>
<td>Private paediatrician</td>
<td>26.8</td>
</tr>
<tr>
<td>Private general practitioner</td>
<td>48.9</td>
</tr>
<tr>
<td>Public hospital unit head</td>
<td>51.9</td>
</tr>
<tr>
<td></td>
<td>73.1</td>
</tr>
</tbody>
</table>

Sources: City of Paris Department of Social Affairs, Assistance Publique-Hôpitaux de Paris, SESI (Department of Statistics and Data, Ministry of Social Affairs), Comité d'Études et de Recherches des Coûts (CERC), National Order of Physicians; National Federation of General Practitioners, National Federation of Pediatricians, National Order of Midwives.

Notes: The salary data are from 1993 schedules. Take-home pay is after social deductions but before income tax. The franc-to-dollar conversion is the 1993 OECD Sppp.

a. Can be increased significantly through nights on call in the intensive care unit
b. Can be as much as doubled through private patients allowed in unit.
counselors, dietitians, speech therapists, and physical therapists work as consultants to PMI teams.

Local PMI agencies recognize a universal mission to promote, within their jurisdictions, the health of all women and children. In practice, PMI agencies perform three critical functions for the entire maternal and child population. (1) The agencies review all pregnancy declaration forms and child health certificates to identify individuals and families at risk. (2) As required by law, they conduct health screenings of all children in the école maternelle; these exams are usually offered to four year olds, whose preschool enrollment approaches 100 percent. (3) PMI agencies also help ensure quality in hygiene and security in the care and education of infants and toddlers in all settings.

Local PMI agencies uphold a universal mission in a second sense. They offer services to all families who seek them out, regardless of means. Thus, a woman who presents herself at a neighborhood PMI clinic will receive free information, advice, examination, or other assistance whatever her social class, residency status, or economic need.

Most families have arrangements with their own physicians and other professionals. Therefore, PMI agencies concentrate most of their resources on women and children who may need extra help because they face serious or multiple risks. Each local PMI agency sets its priorities according to the needs of local populations, but uses the same general methods of targeting women, children, and families for special assistance. These methods include the review of health certificates, referrals from physicians, and the siting of free health centers in neighborhoods known to have a high proportion of low-income families.

According to national planning estimates, local PMI agencies should have the capacity to provide direct services—home visits and clinical exams—to approximately 10 percent of the maternal and child population. In fact, the agencies appear to reach a significantly larger proportion of children. In 1991, according to the Ministry of Social Affairs, 10.7 percent of pregnant women and 20.7 percent of children under six visited a free PMI health center at least once during the year. In the same year, 8.4 percent of pregnant women and 12.0 percent of children under six received home visits from PMI staff. Local PMI directors report a significant, but far from complete, overlap of these two categories of direct service.

The distribution of PMI agency services is, however, uneven. Urban areas are usually well served; rural areas less so. In Seine-Saint-Denis,
part of the Parisian megalopolis, nearly 50 percent of children in the 0-to-6 age group use PMI neighborhood centers for preventive care; in Côte-d’Or, the proportion is 11.5 percent (according to 1991 data collected by the PMI Bureau in the Ministry of Social Affairs). In 12 rural départements, the PMI agency had no visiting midwife on staff in 1991.

These differences among départements have existed since the origins of PMI, even when the local agencies were run by the central Ministry of Social Affairs through administrative intermediaries posted throughout France. Until the decentralization reforms of the 1980s, however, the national PMI Bureau retained control over strong levers of power capable of influencing recalcitrant localities. The decentralization laws of 1983 changed this pattern by transferring control of all social and preventive services to the elected General Council of each département. To carry out this new mandate, each council now receives a decentralization block grant, which provides national funding to départements at levels comparable to the past, including inflation adjustments, for an array of social and preventive services, including PMI.

In 1992, seeking to counter an anticipated increase in inequality across regions in the wake of decentralization, the French government adopted national PMI standards. Their content had been carefully developed during extensive negotiations among national and local officials and medical and public health experts. Consensus was achieved on the principle that every local PMI agency should have the capacity to serve the national averages in home visits, consultation sites, and key staff.

In concrete terms, this principle requires each département to build a PMI agency capable of offering at least 16 half-days per week of free family planning and prenatal consultations for every 100,000 residents between the ages of 15 and 50; four of the half-days must be dedicated to prenatal consultations. In addition, each PMI agency must offer at least one half-day per week of preventive child health consultations for every 200 live births. Moreover, each PMI agency staff must include at least one home-visiting midwife for every 1,500 live births, and at least one puéricultrice for every 250 live births.

Currently, about two-thirds of the French population live in areas where three, four, or five of the national standards are met or exceeded, according to data and analysis by the Ministry of Social Affairs. The areas where départements tend to fall
farthest behind are family planning, prenatal care, and midwife home visits. To a large extent, this lag reflects the relatively recent emphasis of PMI policy on these areas. Family planning services were added to the mission of local PMI agencies only in 1967, and prenatal home visits conducted by midwives were introduced in the mid-1970s.

As an inducement to départements to build out their PMI agencies in conformance with the new standards, the national government now requires the Sickness Funds that administer National Health Insurance to reimburse examinations conducted by PMI agencies at the private sector rates. This money will enable the local PMI budgets to cover the costs of compliance with the national standards, according to calculations by national and local political officials. For all départements to meet national standards in the prenatal area, for example, the Ministry of Social Affairs estimates that an additional 90 physicians and 90 home-visiting midwives must be hired.

The combined annual budgets of all 96 local PMI agencies in 1992 amounted to a miniscule 0.3 percent of annual total national health care expenditures. PMI budgets represented 14 percent of total public expenditures on preventive health programs.

In the wake of the decentralization reforms, the national PMI coordination is now modest. The Ministry of Social Affairs collects and publishes annual data about PMI agency services throughout France, and develops and distributes informational and educational materials to the local agencies. In addition, the ministry retains a role as an initiator of policy ideas and proposals at the national level, especially regarding measures that will encourage local compliance with national PMI standards.
"When mothers are protected by society at all levels, they are strengthened to protect their infants in turn. Why don't we do this, too?"

Ruth W. Lubic, C.N.M., Ed.D., F.A.A.N
General Director
Maternity Center Association

"The desire to protect the French children begins, not with prenatal care or infant and child care, but with the recognition that children are so important that the pregnancy itself should be planned. Contraceptive services are considered a routine and necessary contribution to the protection of women and children in the French system."

Sara R. DePersio, M.D., M.P.H.
Deputy Commissioner for Personal Health Services
Oklahoma State Department of Health
Mothers Protected

Belin Biscuit Manufacturers, a subsidiary of the giant food conglomerate BSN, grants pregnant women on its payroll an additional 45 minutes of rest during the workday, permits time off with pay for prenatal appointments, and arranges temporary shifts in job assignments to reduce physical strain. Labo Industrie, a rapidly growing midsize manufacturer of lubricants, spark plugs, and ignition systems, also adjusts work assignments and schedules to accommodate the special needs of pregnant employees. Both companies, like all employers in France, fulfill a legal obligation to grant paid maternity leave with job security (see tables 11 and 12). In addition, both have responded to official encouragement to create complementary PMI policies in the workplace.

French employers carry a significant responsibility as partners of government, PMI agencies, hospitals, medical and health professionals, and French families in ensuring the health and well-being of mothers, from preconceptional counseling and prenatal care, through birth and postnatal care. PMI’s strong emphasis on mothers, evident in our visits everywhere, expresses a relatively recent historical shift in national priorities. Originally, PMI was a postwar campaign to save the lives of infants and young children; mothers’ needs came second.

By the 1960s, improvements in living conditions and the steep decline of infectious disease as a threat to child survival focused professional and public attention on more complex causes of childhood suffering. These causes, often traceable to the earliest months of gestation, included prenatal contributors to congenital disabilities, psychosocial dynamics of dysfunctional families, and socioeconomic inequalities. Simultaneously, a social revolution transformed sexual attitudes and behavior, leading to publicly funded birth control services in 1967 and the legalization of abortion in 1975.
In response to these kaleidoscopic changes, the French PMI system adjusted its policies and programs to bring its maternal components into balance with its traditional focus on young children. These changes led to the current philosophy and practices that encourage and support women in the intentional conceiving and bearing of children.

Toward this end, local PMI agencies oversee or directly offer free preconceptional counseling, contraceptive advice, and abortion counseling in 800 family planning consultation posts throughout the country. One-third of these posts are located in public hospitals, one-third are established either by municipal governments or private associations (usually funded publicly), and one-third are in PMI agencies.

PMI family planning services are intended for, and predominantly used by, young women and men under 25 years of age. Mothers' confidentiality is protected, and they receive contraceptives and lab tests free of charge. (For nonmothers and nonadolescents, counseling is free but fees are charged for contraceptives and lab tests.) The effectiveness of these strategies, and complementary educational programs in public schools and communities, is indicated by the steep drop, over two decades, in the proportion of births to teenagers.

In 1972, 9.9 percent of births were to mothers younger than 20 years; by 1981 the proportion had fallen to 6.0 percent, according to national surveys by the Institut national de la santé et des recherches médicales (INSERM). A decade later, in 1991, only 2.4 percent of births were to teenage mothers, according to the Institut national de la statistique et des études économiques (INSEE).

### TABLE 11. Maternity Leaves in France, According to Number of Children

<table>
<thead>
<tr>
<th>No. of Children to be born</th>
<th>Length in weeks before and after birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Before</td>
</tr>
<tr>
<td>No Children in Family</td>
<td>6</td>
</tr>
<tr>
<td>One Child in Family</td>
<td>16</td>
</tr>
<tr>
<td>Two or More Children in Family</td>
<td>18</td>
</tr>
</tbody>
</table>

Source: Ministry of Social Affairs.
TABLE 12. Employer and Employee Contributions to Sickness and Family Allowance Funds

<table>
<thead>
<tr>
<th>Contribution</th>
<th>Employer Share</th>
<th>Employee Share</th>
<th>Percent of Total Payroll</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sickness Fund &amp; Maternity Fund</td>
<td>12.8</td>
<td>6.8</td>
<td>19.6</td>
</tr>
<tr>
<td>Family Allowance Fund</td>
<td>5.4</td>
<td>5.4</td>
<td>10.8</td>
</tr>
</tbody>
</table>

Source: Ministry of Social Affairs.

Note: Employers do not pay directly for universal maternity leave. Instead, every employer and employee contributes to a general Maternity Fund, similar to Sickness Funds, in proportions of payroll indicated above. In addition, employers pay a universal payroll tax to finance the Family Allowance Fund, which pays the young child allowance that is linked to compliance with prenatal and young child health supervision examinations. The fund also provides support to parents who choose to retire temporarily from work (with job security) in order to raise children. The Family Allowance Fund is an expanded version of a program initiated by French employers in the late 19th century.

As family planning rose on the national agenda, the French government embarked on an ambitious campaign to mobilize public and private sector energies to improve prenatal care. This perinatal program, launched in the early 1970s, sought to reduce infant deaths and disabilities occurring between the 28th week of gestation and the seventh day after birth through improvements in delivery room and neonatal care technologies and neonatology courses for medical students. However, the program's main goal was to improve prenatal care and maternal education in order to prevent preterm deliveries known to be highly associated with infant deaths and disabilities.

A national media campaign, a shift in professional norms to promote early and frequent prenatal care, and the increased use of fetal monitoring were elements of the campaign. Research by Emile Papernik, an internationally recognized obstetrician, indicated that the risk of preterm delivery is largely attributable to social and environmental factors and can be mitigated by stress reduction and an increase in...
social support. This research spurred PMI agencies to adopt more systematic procedures for risk identification and to hire midwives to conduct home visits to women with high-risk pregnancies. The number of midwives working for the PMI has grown steadily since the mid-1970s.

The perinatal program philosophy received additional support from the work of innovative and often controversial French physicians who worked to humanize childbirth, beginning in the 1950s and continuing through the 1970s. Fernand Lamaze, Frederic Leboeuf, and Michel Odent each based his approach in prenatal education, involving parents as active participants and reinforcing the concept of family responsibility.

Within a decade, the national perinatal program had visible and impressive results, as studied and documented by INSELM. Between 1972 and 1981, the proportion of women receiving three or fewer prenatal exams dropped from 17.3 to 3.9 percent. Between 1972 and 1989, preterm deliveries (before the 37th week of gestation) declined from 8.2 to 4.8 percent, and the rate of perinatal mortality fell from 3.3 to 0.9 deaths per 1,000 live births.

In contrast to the rapid evolution of family planning and prenatal care since the 1970s, France's third major PMI program for mothers, paid maternity leave, has been in effect since 1946. However, changes to the labor code introduced during the "perinatal" period have strengthened workplace protections for expectant mothers. Since 1975, employers have been prohibited from refusing work to a woman because of her pregnancy, and a pregnant employee can request a change of work responsibilities to reduce stress and the risk of preterm delivery. Trade unions play an important role in securing accommodations for pregnant women, such as rest periods during the day and work shifts permitting travel during off-peak traffic. However, employers have retained the right to refuse employees' requests. Thus, women at risk of preterm birth often secure a physician's prescription of medical rest rather than a change in work conditions, according to research by INSELM.

A fitting symbol of PMI's success in improving prenatal care, a cornet de santé de la maternité, was officially
introduced in 1990. Modeled after the health booklet given to every child at birth, the carnet for mothers is both an educational pamphlet and a medical record. It contains information about fetal development and encourages the mother-to-be to protect her unborn child—and her own health—through appropriate diet and regular examinations. The booklet also informs every woman of her rights to an array of medical, social, and financial services—including prenatal education classes and postnatal exercise classes covered by national insurance.
“The French go to great lengths to identify at-risk mothers and children. Then they spend significant resources on those so identified. This method appears to be cost-effective in preventing long-term medical and social problems. Our nation would do well to study the French system to determine whether these features might be applicable to our society.”

Birt Harvey, M.D.
Professor Emeritus of Pediatrics
Stanford University School of Medicine
In a cheerful room lined with folders hung in open files and stored on shelves, four secretaries interrupted their work to receive seven members of our delegation in the PMI agency offices in Dijon, the principal city of the Côte-d'Or département. We observed the arrival and sorting of pregnancy declaration forms and child health certificates—the heart of the universal search by the agency for risk factors that endanger the health of pregnant women and of children from birth to age six. Each secretary, we learned, sorted the documents by site of residence and forwarded them to a PMI physician to review for risk indicators that might trigger a home visit.

France’s PMI agencies concentrate their search for women and children in health-endangering conditions between the time they first receive a woman’s pregnancy declaration form and the child’s second birthday. This is a time when families are most likely to welcome outside assistance. Generally, assistance early in the course of a pregnancy or a child’s life is lower in cost and more effective in averting risk than later interventions.

During these critical months in the lives of mothers and children, every local agency reviews four sets of universal documents: the pregnancy declaration form and the eight-day, 9-month, and 24-month child health certificates (see tables 13–15). These contain information about social risk factors such as a teenage pregnancy, a single parent, an unemployed head of household, a large family, residence in a low-income neighborhood, or an out-of-home placement of a child. No ethnic or racial categories are used in France. The documents also signal medical risks such as high blood pressure and other conditions that heighten the risk of preterm birth; and, for a child, family medical antecedents, congenital disabilities, prematurity, abnormal weight or height, and failure to receive required and recommended vaccinations.

PMI agencies collaborate with a number of institutions and professionals to identify and assess conditions that pose risks to maternal and child health. Because of the correlation between late registration and isolation, poverty, and other serious
TABLE 13. The 8-Day Certificate

The eight-day certificate must be completed before a newborn is discharged from a hospital (almost always before the eighth day). It permits PMI staff to offer home visits to infants, soon after their birth, in whom one or more of the following risk factors have been detected.

- Mother’s age of less than 18
- Mother’s age of more than 40
- Multiple birth
- Preterm birth (before the 37th week of gestation)
- Birthweight less than 2,500 grams
- Apgar score lower than 5
- Transfer of infant to an intensive care unit
- Major illness of the mother, newborn, or other family member
- Congenital disabilities
- Inadequate prenatal care for the mother
- Birth at home
- Numerous pregnancies in relation to the mother’s age
- Child is the first to be born after a previous stillbirth or abortion
- Disadvantaged home environment (e.g., single mother, unemployment in the family, housing problems)

TABLE 14. 9-Month and 24-Month Certificates

As a child begins to participate in the community, the PMI agency receives important information about social behavior or risk factors from sources such as child care providers. Thus, the 9- and 24-month certificates transmitted by physicians after health supervision examinations convey primarily information needed to identify factors of physical and medical risk, as follows.

- Abnormal weight or length for the age of the infant
- Slow psychomotor development
- Congenital disabilities
- Out-of-home placement of the child (e.g., in an orphanage or a foster home)
- A major medical problem
- Inadequate vaccination compliance
TABLE 15. Return for 8-day, 9-Month, and 24-Month Certificates

<table>
<thead>
<tr>
<th>Health Certificate Name</th>
<th>100-90%</th>
<th>90-80%</th>
<th>80-70%</th>
<th>70-60%</th>
<th>&lt; 60%</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td>8-Day</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Return Rate = 96%</td>
<td>81</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9-Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Return Rate = 71%</td>
<td>4</td>
<td>38</td>
<td>26</td>
<td>13</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>24-Month</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Return Rate = 67%</td>
<td>2</td>
<td>31</td>
<td>30</td>
<td>15</td>
<td>14</td>
<td>4</td>
</tr>
</tbody>
</table>


Note: In contrast to routine receipt of eight-day certificates from hospitals, PMI agencies depend on the voluntary compliance of physicians in private practice to return 9- and 24-month certificates. In view of the lack of sanction for noncompliance, the 71 percent and 67 percent return rates are impressive.

Social problems, the Family Allowance Fund notifies the local agency of women who register their pregnancies after the 15th week of gestation. Physicians in the private sector notify the agency if a woman is at risk of premature birth or a child has a serious medical problem. Public maternity hospitals often maintain a variety of links with midwives and puéricultrices on the PMI staff to identify and follow-up mothers and newborns likely to benefit from home visits. In some localities, the collaboration of the PMI agency and maternity hospital staff takes place in weekly or biweekly meetings (triage sessions).

Several members of our delegation observed a triage session at the Saint-Antoine Hospital, a busy public maternity ward located near the Place de la Bastille in Paris. An off-the-record discussion was held among hospital staff—pediatrician, midwife, family counselor, social worker, psychologist, translator of West African languages—and the puéricultrices and social workers in charge of home visits in the neighborhoods surrounding the hospital. The cases presented often focused on transitions between hospital and home, and raised such questions as how to follow a mother who is leaving the hospital but whose living arrangements are precarious, or how to prepare and support parents to welcome home a child who has been in an intensive care unit.

Internally, as well, PMI agencies rely extensively on collaborative methods to assess risk information and decide on follow-up procedures. Typically, a physician, midwife, or puéricultrice, and often a social worker, discuss cases in weekly or biweekly sessions.

The relative importance assigned to different risk factors and the weight given to the sources of information follow no uniform pattern, even within one agency. Across agencies.
Pregnancy Declaration

In France, 96 percent of pregnant women visit a physician before the 15th week of gestation to confirm their condition, as required by law. At the conclusion of each examination, a physician, who is typically in private practice, signs a pregnancy declaration form.

The pregnancy declaration form gives the age, marital status, and profession of the mother; the name and profession of the father; maternity insurance information; the number of children and previous pregnancies; and the expectant mother's daily commuting time.

The woman sends one copy of the form to the local office of a Sickness Fund to register for 100 percent coverage of maternity-related costs, including prenatal care, hospitalization, and maternity leave. She sends two additional copies to the local office of the Family Allowance Fund to sign up for the automatic cash premiums linked to compliance with a national schedule of prenatal and postnatal exams. The Family Allowance Fund, in turn, sends one copy of the form to the local PMI agency for review.

The local PMI agency reviews all pregnancy declaration forms in search of risk factors. The agency also receives risk information from physicians in private practice and public hospitals, and from the Family Allowance Fund. The latter reports all women who register after the 15th week.

After reviewing information and discussing cases with staff, the agency director, a physician, turns over responsibilities to a midwife who invites women at risk to accept home visit (and often housekeeping) services. Pregnant women who are not targeted for home visits receive a letter from the agency informing them of PMI services. Families may initiate a request for a home visitor, but do so infrequently.
the differences can be significant, often depending on the staff available for follow-up home visits.

Nonetheless, in the five départements visited by the delegation, the majority of pregnant women targeted for home visits are referred directly to the PMI by physicians who believe that the social support of a PMI midwife and a PMI-financed housekeeping service can significantly reduce the risk of preterm birth. Newborns with medical problems are always targeted for follow-up, and the PMI and its collaborators in public hospitals are especially vigilant for all signs of social and psychological behavior indicating a risk of child abuse.

The PMI agencies' case-by-case procedures of risk identification eliminate an important source of social stigma caused by labeling entire groups at risk. Overall, most of the recipients of PMI attention and services belong to low-income groups. However, by including the entire maternal and child population in its review of health data, agency procedures yield some benefits for middle class and professional families.

Data collected by PMI agencies from health certificates are, increasingly, computerized after being reviewed for risk factors by physicians. (To preserve confidentiality, the data are entered anonymously.) The resulting databases help PMI agency staff to analyze the public health status of local populations. These data are not collected for research purposes, but for reaching and serving families. Instead of building databases, PMI agencies concentrate on building relationships.
"PMI-like teams of interdisciplinary professionals are already working, in limited size and scope, around the country, with favorable results. What no one has done is to restructure an entire service delivery system around the needs of parents, infants, and children. This is fundamental to the growth and development of American children."

Robert K. Ross, M.D.
Director of Health Services
County of San Diego
Home Visits Build Families' Competence

In a tiny room, with only a mattress on the floor for seating, 11-month-old Nasir splashed in his basin bath while his mother spoke easily with the visiting PMI puéricultrice. The puéricultrice reviewed Nasir's carnet de santé, asked about Nasir's diet, and noted how much fun it would be for Nasir to have a duck or a boat for water play.

Nasir had been born prematurely, at 34 weeks of gestation. He lived with his parents and an uncle in a decrepit Parisian squat—an abandoned building near two busy train stations. The puéricultrice had visited him monthly since his birth to keep track of his weight gain and development. Of special urgency, now that Nasir was crawling, was the danger of lead poisoning from the ingestion of paint dust and chips, a problem of growing concern to the Paris PMI. The puéricultrice encouraged the family to go through the procedures to apply for public housing.

Throughout France, PMI agencies offer home visits to families living with social and medical risks that may endanger a woman's pregnancy or the health of a newborn or young child. The primary purpose of these visits is to establish relationships of trust that encourage families to help themselves. In France, about 8.4 percent of pregnant women and 12.0 percent of young children benefit from PMI home visits, according to data gathered by the Ministry of Social Affairs. However, service levels fluctuate significantly among départements, depending on local priorities and budgets.

PMI agency home visits are open, exploratory, and flexible. They serve not only to offer assistance but also to gather information about unforeseen risk conditions. The results of these visits are frequently reported, with the family's
approval, to a physician, a social worker, or other professionals in contact with the family.

Midwives who conduct prenatal visits encourage the creation of emotional ties between the mother and the baby about to be born and are alert to any signs that a woman might reject a child. To help strengthen families around the event of birth, midwives invite the husband and other family members to be present during the home visits. Midwives perform medical examinations and tests in the home, and advise on diet and physical activity. The midwife also helps to ensure good communication between an expectant mother and the hospital obstetrical team who will take charge of the woman's care from the ninth month of pregnancy through her hospital stay. Often, a midwife will introduce the family to the puéricultrice, who will visit after the child's birth, if needed.

Puéricultrices who conduct home visits to young children at risk encourage responsible parenthood by helping parents see and understand the needs, pleasures, and development of their children. Using friendly instruction, they offer recommendations in many areas, including diet, sanitation, exercise, following a doctor's prescription, and finding child care. Because more puéricultrices than midwives are on PMI staffs and because they tend to work directly or indirectly with families over longer periods of time, they constitute the strongest links between the PMI agencies and social and educational services in the community. However, both midwives and puéricultrices exercise considerable independence in deciding how best to help families gain access to information and assistance outside their homes.

PMI midwives and puéricultrices are instructed and constantly cautioned to exercise restraint. They recognize, as a matter of professional discipline and principle, that they cannot solve all problems for a family, and that they must refer their clients to other types of professionals. Through careful transitions in these relationships, continuity is established for families. In France, continuity of care infrequently means that the same professional must be continuously involved.

Social workers, borrowed under contract from their home agency (often child welfare), also make PMI home visits. However, social workers normally enter a case when legal issues arise involving access to medical insurance, questions of child custody, or imminent danger to a child. At times, they are the first professionals assigned by PMI and social work agencies to contact a family. More
commonly, a *puéricultrice* or midwife makes the introduction.

The number and frequency of PMI home visits is largely the responsibility of each home visitor to determine according to the circumstances of each case. The national statistics show that, on average, a midwife makes about four home visits per client and that a *puéricultrice* makes about two visits per client—always by prior appointment.

That these averages obscure more than they reveal is clearly shown in a 1991 study by the Paris PMI to determine the numbers and patterns of home visits by *puéricultrices* to children identified as at risk. This information was gleaned from eight-day health certificates for 29,426 infants born and residing in Paris in 1991. In general terms, the results were: 19 percent of all resident newborns were identified as possibly at risk; half of these (10 percent overall) received at least one home visit from a PMI *puéricultrice*. The other half, who did not receive visits, was about equally divided between children whose follow-up was known to the *puéricultrice* (most children went to PMI clinics or saw private doctors) and children whose follow-up was unknown, often because of staff shortages, but more frequently due to a change of address, poor information, or the refusal of a family to schedule an appointment. Of the 10 percent of newborns who received home visits, approximately one-third received an intensive series of visits and nearly two-thirds were referred to a neighborhood PMI clinic for follow-up.

In Paris, individual members of the delegation paired with midwives and *puéricultrices* and observed home visits in three dozen settings that included abandoned buildings, public housing, and the quarters of middle class and professional families. Some members of the delegation also visited homes near Montpellier in the département of Hérault. We were impressed by the home visitors' skills in engaging families in conversation, reaffirming family values and cultural practices, and helping parents gain confidence in their ability to take charge of their own lives and those of their children.
The Paris PMI Agency: Four Portraits

Paris, which is a département as well as a city, operates a PMI service that is organized into sectors whose boundaries, in most cases, coincide with those of the 20 arrondissements (sectors). Eight hundred infants are born in Paris every week and about three-quarters of the newborns reside in Paris. The following brief portraits indicate the structure and activities of the Paris PMI agency.

Marcelle Delour

Agency Director Marcelle Delour is a pediatrician and public health expert. Originally from the south of France, 46-year-old Delour rose through the Paris PMI ranks, holding the posts of doctor and director of the sector in the 11th arrondissement before being tapped for the city's top-ranking PMI job in 1991.

Delour works closely with a team of 18 physicians, each of whom directs a local PMI sector. Delour and her team implement agency policy and programs and manage a staff of nearly 500, including home visitors, agency employees, and public hospital staff who carry out PMI functions. Delour maintains frequent contact with the city's home-visiting midwives and with the heads of the Paris puéricultrices corps. She also represents the PMI agency in negotiations with Paris officials on a range of matters, from maintaining relations with the city's public obstetrical wards to licensing home-based family child care providers.

As an initiator and participant in mult_agency research projects, Delour has led a joint study with city mental health services on detecting families prone to child abuse, as well as a study of the relations between the PMI agency and its client base. Her agency has also been part of a major investigation of pregnancy outcomes for women who receive very little prenatal care, and the agency will soon take part in a national review of infant and maternal mortality.

The reduction of lead poisoning and the prevention of child abuse are priorities for Delour. "In both areas," she explains, "American research enabled us to implement a plan of action involving various public and private services. Our lead-poisoning strategy is showing promising results. The problems of child abuse are more difficult. We may not be close to a solution, but we have a sense of where we are and where we ought to be going."

Delour brings the strong vision of a neighborhood doctor to her post. "In a democracy, each person's rights must be everyone's rights," she says. "There
is no difference between a child's right to education and a child's right to vaccination."

Delour believes that society reveals its character in its policies toward children. "The relationships among parental, community, and public responsibilities for children are ultimately a question of how much poverty a society will allow."

Nicole Benhamou

Sector Director Nicole Benhamou, 46, is the pediatrician who directs PMI activities in the 12th arrondissement of Paris. She begins a typical week at PMI headquarters. During the course of the week, Benhamou meets with the staff of local hospitals, home-visiting puéricultrices, and mental health and social service case workers. In all of these meetings, the shared concern is to identify and follow up families and children at risk. Another objective is to ensure a smooth transition to family and community life for infants and children who have been hospitalized.

All PMI sector heads schedule time to see clients at a PMI center. Benhamou schedules time at two centers. "The time I spend in the consulting room enables me to describe the realities of families and children to those higher up in the decision-making chain," she explains. "But above all, I am a pediatrician. Assuming responsibility for the well-being of thousands of very young children in the sector wouldn't make much sense if I didn't have personal contact with some of them."

At the end of one afternoon's consultations at the Claude Decaen PMI center, Benhamou reflects on the reasons for the strong commitment of PMI personnel. "It may be that so many of us were children of the PMI ourselves," says Benhamou, whose own parents came to France from Morocco in the 1950s. "It was at the PMI that I first came to believe, as a small newcomer, in a nation that seemed to care," she says.

Claudine Schalck

Midwife Claudine Schalck is one of 18 midwives working with the Paris PMI agency. Like her PMI colleagues, Schalck, 36, began her career in a large maternity hospital. As a home-visiting midwife, she now has the
responsibility of caring for women with high-risk pregnancies. Schalck provides medical and social support and informs women of services available to them. Her beat is the 11th arrondissement, a modest neighborhood on the east side of Paris.

Schalck begins every day by attending an obstetric case review meeting at the Metallurgists Hospital. Here, too, she attends a weekly triage session to assess high-risk cases along with a social worker, a psychologist, and a home-visiting PNI pédiatricienne.

Each day, Schalck spends most of her time conducting home visits. One afternoon a week, she also works as a family planning counselor in a PNI center. Twice a month, she leads health discussion groups for community organizations of North African and Turkish women to help them overcome the mistrust of institutions that keeps some immigrant women from receiving prenatal care.

A typically diverse daily caseload for Schalck includes a Moroccan mother of four living in a tenement hotel room, an expectant mother of twins, a 40-year-old lawyer pregnant with her first child, and a young woman battling anorexia. Most referrals come to Schalck after a woman is hospitalized for premature labor. In 1993, she had a caseload of 121 women at the Metallurgists Hospital. Of these, 116 delivered at 37 or more weeks of term.

"I can't change the social or psychological reality of a woman's life," explains Schalck, "but I can help her adjust a high-risk pregnancy to her reality. I can reduce the need for medical examinations at the hospital. I can help a family and neighbors organize the shopping, or the child's homework. I can help the mother learn when to assert her own needs. Most of all, I can come in on a lonely afternoon and sit for a while, and listen, and 'de-dramatize,' and laugh."

Anne-Marie Bouaoun

Pédiatricienne Anne-Marie Bouaoun works in the 10th arrondissement of Paris, where 3,000 children are born each year. Half of the children in this neighborhood, home to both low-income and middle class families, are known to the PNI through either home or center visits.

According to Bouaoun, 46, home visits can "build a mother's confidence in her own abilities at the right time" and prevent the need for higher level medical or psychological care in potentially traumatic situations.

Bouaoun cites the case of Morgane, a child born with a serious but operable skin condition, whose mother asked for home visits to be sure she was doing what was best.

After her morning round of home visits, Bouaoun spends afternoons reviewing cases and attending meet-
ings with medical and social work staff in the neighborhood PMI office. Once a week she also attends a triage meeting at the Lariboisiere Hospital, where newborns at risk are assessed and appropriate follow-up is discussed.

"In recent years, French PMI personnel have been greatly influenced by American and British studies showing a link between maternal depression and child abuse," comments Bonaoun. "One of our chief concerns today is to identify specific causes of this danger, and undertake early prevention through frequent home visits or referrals to psychological or social services."

Bonaoun worked for 13 years in a major children's hospital in the south of France before moving to her current post in Paris. "My commitment to infant health has led me to affirm one basic idea: A child is part of the world from birth, and a child's well-being cannot exist apart from the family."

"I am the simplest level of the chain," reflects Bonaoun. "I am the first point of contact with the family and come before the social worker, psychiatrist, or judge."

Asked to describe her vocation, she responds, "I suppose most people would say I am the lady who comes to give a little advice about the baby."
"The PMI center serves as a gathering place for mothers with small children who might otherwise have a sense of isolation. At the PMI center, mothers and their children are valued and respected and have a sense of belonging. The PMI appears to serve as a focal point for the establishment of a sense of community."

Doris J. Biester, R.N., Ph.D., F.A.A.N.
Senior Vice President for Patient Care Services
The Children’s Hospital of Denver

"It was wonderful to see how the PMI centers reflected the unique characteristics of individual communities. There was a real sense of community ownership and pride. Every family, regardless of income or social standing, was treated with respect and welcomed as valuable members of society."

Helen Muñoz, M.S.W., C.S.W.
Vice President for National and Community Programs
National Coalition of Hispanic Health and Human Services Organizations
Health Centers Where Families Like To Linger

Teenagers sometimes fire guns from high-rise apartment windows above the PMI center of Luth. The center serves families in one of France's largest concentrations of public housing located in the generally affluent suburban département of Hauts-de-Seine outside Paris. Unemployment, alcohol and drug abuse, acquired immune deficiency syndrome (AIDS), and tuberculosis are common among the 15,000 residents and the undocumented families they sometimes harbor.

The Luth PMI center is a world set apart from its dreary and dangerous surroundings. The center's large waiting room is freshly painted and brightly decorated with mobiles hung from the ceiling. Plants next to the windows, posters on the walls, a variety of mats and toys, and chairs and tables of both adult and child sizes invite clients and guests alike to spend time. The center's professional staff includes two puéricultrices (one who directs the center), two assistants in puériculture, one early childhood educator, two pediatricians, and one psychologist.

Families visit the center from 8:30 a.m. until 5:30 p.m., Monday through Friday. The weekly schedule includes five half-days of preventive health consultations (by appointment only) for pregnant women and for young children, and a number of informal activities for both families and children. Because many local families struggle with serious problems, the Luth center staff works closely with the local hospital and physicians, social and child welfare workers, schools, a community justice center,
infant-toddler nurseries, and a temporary shelter for children.

The Luth center is one of 5,490 child health consultation posts, directed by local PMI agencies, that offer free preventive health exams, vaccinations, vitamins, dietary advice, and educational games for children, and advice and counseling to parents.

It also counts as one of the 429 prenatal consultation posts, many of which are located in the same quarters as services for young children. (These statistics are for 1991.)

A PMI consultation post can be anything from a mobile unit to a full-day and full-week center. One-third of the larger centers are concentrated in the Paris region where 10 percent of the national population resides. Child health posts outnumber prenatal posts for several reasons: the six-fold greater number of children ages 0 to 6 than pregnant women in the population; PMI's historical lag in developing prenatal services; and the major role of public hospitals in delivering prenatal care, some of which is actually funded through PMI (as is the case in Paris). For all these reasons, by far the largest users of PMI centers are families with young children.

Overall, according to data from the Ministry of Social Affairs, 10.7 percent of women who gave birth to a live infant in 1991, and 20.7 percent of children younger than six years of age, visited a free PMI clinic at least once during 1991. Anticipating that the centers will attract primarily families in lower social classes, local governments have sited centers primarily in areas with significant percentages of low-income populations.

Recent immigrants often have their first contact with French society at PMI centers. Mothers who stay home with their very young children can gather at the centers to meet one another and make friends. The centers attract and serve families who are fearful or unwilling to use more formal and intimidating public hospitals (another source of free care), uncertain about approaching a private physician, or unable to pay a physician's up-front fees and wait for reimbursement. Thus, those families who might otherwise fall through the cracks can go to a PMI center, find a welcome into society, and grow in skills and confidence in the company of other families.

PMI centers provide free services and advice to anyone who enters, and
in some communities they serve significant numbers of middle class families. As the French explain it, these centers are an option that exists for everyone, along with private doctors and public hospitals, as sources of preventive services and counseling. Consistent with this approach, a PMI center is neither the only source of preventive care in a community—private doctors are the principal providers—nor the only source of preventive care available without paying money up front. Public hospitals recognize an obligation to care for those who are indigent, and there is also a public program of medical aid, operated by municipalities and départements, which gives those who are indigent systematic access to a full range of medical services.

Because PMI centers do not, except in emergencies, diagnose and treat illnesses, neighborhood sites are not comprehensive service centers that isolate clients from the general population. PMI centers seek explicitly to break down social isolation by linking families with physicians in private practice, hospital maternity teams, social workers, housing authority officials, and others. PMI agencies refer to this essential activity as promoting access to social rights for families who might fail to reach out on their own.

Today's PMI centers, with their emphasis on family education and support and their commitment to building informal networks for vulnerable families, differ greatly from their postwar forerunners. In the aftermath of World War II, when the first centers were created, they fulfilled a narrowly defined function of preventing the spread of communicable diseases. According to the Institut de puericulture in Paris, young mothers who brought their infants for appointments sat in chairs lining a wall, “their babies held naked on their knees, waiting to hear their name called through a loudspeaker.”

In the 1970s and the 1980s, as research demonstrated how profoundly early childhood experiences influence later growth and development, PMI agencies transformed their centers to take advantage of the new knowledge and its implications for practice. Today's waiting rooms are hubs of interest and activity. They are designed to encourage children to move about freely. As children play, parents are invited by staff to observe carefully what they do and speak about it with each other. PMI staff then use these informal exchanges to open other conversations about family life, childrearing practices, and social or emotional features of a child's home. In some centers, psychologists play an important role as observers and interpreters of the interactions and conversations of parents and children.

From such informally acquired knowledge, the staff organize activities to suit the needs of parents and families. They may offer nutrition classes, meetings for parents to discuss issues of common concern, play sessions for young children, summer programs to help children prepare for the école maternelle, and classes in cooking for immigrant mothers unfamiliar with French foods. Each center seems to take the initiative in these matters.
"One outstanding feature of the French maternal and child health system is integration. The public and private health delivery sectors, the medical and social aspects of health care, and the health and child care services are all integrated."

Birt Harvey, M.D.
Professor Emeritus of Pediatrics
Stanford University School of Medicine

"French child care centers are a perfect example of service integration (linkages among education, child care, and health care) which we talk about in the United States but seldom see played out here on a large scale. We also found it gratifying that physicians have a say in selection of personnel in child care centers."

Betty King
Director of Administration and Operations
The Annie E. Casey Foundation
Child Care Embraces Health Care

As we entered the classroom, Mathieu, a child with Down syndrome, scribbled busily with crayons on paper. From time to time, he turned to the children around him for help. In the small village of St. Mathieu-de-Trévières in the south of France, Mathieu is one of three children with special needs who attend the local école maternelle, a free public preschool. Each child follows a part-time individualized program developed by parents, teachers, and therapists. A physician with the PMI agency of the Hérault département assists in some of these arrangements.

One of the PMI's newest responsibilities in the area of child care and education is to help integrate into child care settings children with congenital disorders, physical disabilities, and behavioral problems. At times, a PMI physician will take the initiative at the request of an individual family or teacher. More commonly, the agency participates as a partner in each département's Centre d'action médico-sociale précoce (CAMSP). Each center of early sociomedical action helps to ensure that children with special needs have the same opportunities as other children to benefit from the social life of the community, including all forms of child care.

In Hérault, a département of 818,000 with 59,000 children under six years of age, the CAMSP program is directed by a full-time physician with a full-time medical secretary, and staffed by eight part-time professionals: family practitioner, pediatrician, child psychiatrist, speech therapist, otolaryngologist, psychologist, physical therapist, and specialist in psychomotor activity. With a yearly budget of $145,000, this CAMSP pursues its interlinked objectives of disease prevention, early detection and diagnosis of problems, medico-psycho-socio-educational care, and assistance to parents in tailoring an environment for children with special needs.

Children in the CAMSP program of Hérault are predominantly newborns with...
visible or suspected sensory, motor, or mental anomalies; children from families with histories of drug addiction or mental illness; and preschool children who show warning signs of motor, language, or behavior problems.

CAMSP works closely with PMI staff, child care providers, out-of-home living centers, and health and social services to assess each child and develop a "plan for living" for the child in partnership with parents, caregivers, and educators. In 1993, the CAMSP program in Hérault served 476 children, at an approximate cost per child of $305, of which the PMI's portion is, by law, 20 percent—about $61.

In addition to its increasing involvement with special needs children, every local PMI agency performs a variety of preventive health functions for child care and education (which, in turn, require evidence of up-to-date vaccinations as a condition of admission). The PMI functions include licensing, monitoring, training, consulting, referrals in infant-toddler programs, and health examinations in preschools.

The largest arena for the delivery of preventive health services by the PMI agency to young children is the universal école maternelle, France's national preschool system (see table 16). Financed by both national and local resources and offering full-day or part-day programs tailored to family preferences, the école maternelle is one of France's most beloved institutions. Although early 19th century forerunners were shelters for children of the working poor, the école maternelle came under the umbrella of the Ministry of National Education more than a century ago. During subsequent decades of expansion, it has gradually achieved high quality on a universal scale. All école maternelle teachers have the equivalent of a master's degree. The daily programs emphasize physical, emotional, cognitive, and social development. The system serves virtually all three-, four-, and five-year-old children, including the 13

<table>
<thead>
<tr>
<th>TABLE 16. 1991 Child Care and School Enrollment of Children Under Six</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children ages 3–5 inclusive</strong></td>
</tr>
<tr>
<td>in école maternelle</td>
</tr>
<tr>
<td><strong>Children under 3</strong></td>
</tr>
<tr>
<td>in programs offering full-day care</td>
</tr>
<tr>
<td>école maternelle</td>
</tr>
<tr>
<td>individual family day care homes</td>
</tr>
<tr>
<td>child care centers</td>
</tr>
<tr>
<td>family day care networks</td>
</tr>
<tr>
<td>in drop-in, part-time programs</td>
</tr>
</tbody>
</table>

Sources: Data on enrollment figures for all programs except the école maternelle are from the national PMI bureau. The école maternelle attendance figures are based on widely used official estimates.
percent who attend publicly subsidized private preschools. Approximately one-third of two year olds also attend, often part time.

Traditionally, PMI agencies served as sources of professional consultation to the école maternelle on issues of safety and health or regarding medical referrals for individual children. However, 1992 legislation gave local PMI agencies the mandate of conducting preventive health exams for all preschool children, with parents' permission and with parents present whenever possible. This major policy shift had roots, in part, in the pioneering studies conducted by the Côte-d'Or PMI in the 1970s (see table 17). These revealed that children examined and appropriately referred for diagnosis and treatment at age four had markedly fewer medical, visual, hearing, and behavior problems by the time they reached elementary school than did children who had no preschool examination.

In contrast to their new role of direct service in the école maternelle, PMI agencies provide support functions for all infant-toddler care for children under age three. The main program types, intended for children whose parents work outside the home, are municipal nurseries (crèches), family child care networks (home-based providers linked into a publicly administered program and resource service), independent family child care homes, and part-time centers that typically receive children for a few hours at a time.

Although all forms of infant-toddler care have expanded steadily since the 1970s, demand exceeds supply due to the recent rapid increase in women's participation in the workforce. According to 1989 data published by INSEE, 59.3 percent of women whose youngest child was under age three were employed, as were 68.8 percent of women whose youngest child was between three and five. In the départe-
ment of Côte-d’Or, where 60 percent of mothers with children under three work outside the home, 33 percent of children in this age group are in licensed centers, networks, or homes, or attend the école maternelle; but 26 percent are either in unlicensed care, stay with relatives, or use multiple forms of part-time care.

All infant-toddler care programs must receive official approval of a local PMI agency to open a new facility. This approval depends on compliance with health, safety, nutrition, and staffing standards established in the national PMI codes. In addition, PMI physicians visit all infant-toddler centers in their jurisdiction once or twice a year to consult with center staff about various health and safety conditions and problems. These visits serve the purpose of monitoring program quality, but are not organized as inspections and do not entail the threat of sanctions.

PMI physicians must also be available for consultation about particular children or families, or conditions at infant-toddler centers. Some localities hire non-PMI physicians to give examinations and vaccinations in infant-toddler centers, especially for children of parents who may have difficulty using other sources of preventive care. These services differ by locality and are not part of the national PMI agency mandate.

PMI agencies are the infrastructure for the entire field of individual home-based family child care. Due to the high costs of center care, including family child care networks, French public policy has recently promoted improvements in family child care through various incentives. In the wake of legislation in 1977 that recognized family child care as a profession and entitled providers to a minimum wage and social security benefits, the PMI assumed responsibilities for recruiting and training child care providers and visiting their homes with information, materials, and advice. The puericultrices, who are responsible for these tasks, often spend time in PMI centers observing interactions and activities among families and children as a means of building their skills as advisers to child care providers.
After community surveys and pilot tests in 1972 and 1973, the PMI agency of Côte-d'Or initiated a program of health examinations for four year olds in the école maternelle, which virtually every child attends. By 1992, the program had expanded to 189 of the 249 écoles maternelles in the département, and served 82 percent of all four year olds. In 1994 (not shown) the program reached 100 percent of four-year-old children.

As indicated on the graph above, three different types of examinations are performed. These depend on children’s needs.

**Comprehensive**: In écoles maternelles having significant concentrations of children from families experiencing rural isolation, immigrant status, unemployment, or other socioeconomic disadvantages, all four year olds receive, over extended time periods, comprehensive health evaluations that involve the collaboration of PMI staff, parents, the classroom teacher, and social workers or other professionals working with families. More than one-quarter of the four year olds in Côte-d'Or, who attend 76 écoles maternelles, benefited from these examinations in 1992.

**Audiovisual**: In schools serving children whose families provide for regular medical care, four year olds receive a simpler, audiovisual examination. In 1992, these took place in 96 écoles, the majority of which are located in Dijon.

**Swimming Pool**: Finally, in about 17 écoles, including some that receive one of the services listed above, certain classes have high proportions of children whose families do not supply the medical certificate required for participation in swimming lessons. In these cases, the PMI fills in with checkups that permit such participation.
"There are three important features of the French PMI that make a significant impact in France, and would add value if added to American programs: combining social and medical services into one system, strongly encouraging and requiring individuals to take responsibility for their own and their family's health, and assisting in the social assimilation of immigrant families and children."

Charlette Beyerl  
Executive Director and CEO  
Wisconsin Independent Physicians Group, Inc.
A Public Route To
Private Responsibility

In France, PMI public policies encourage, support, respect, and facilitate basic, common-sense steps by families to ensure preventive health care for women of childbearing age and young children. The success of this public route to private responsibility is evident in France's nearly universal rates of participation in early and frequent prenatal visits, child health examinations, and required childhood vaccinations.

Viewed independently of its institutional context, PMI consists of parallel and linked strategies in four major arenas of health promotion: clinic, community, workplace, and home. American counterparts exist, are in evolution, or could be developed for every element on the following list.

**CLINICAL STRATEGY**

Remove barriers of cost, eligibility, distance, and stigma that prevent families from entering doctors' offices and other medical settings to receive preventive exams, tests, and vaccinations.

- Universal health insurance provides full reimbursement for preventive services and removes financial barriers for the 98 percent of French families who are entitled to health insurance coverage and who receive preventive care primarily through the private medical sector.

- Neighborhood health centers offer free preventive care, counseling, and encouragement—with no eligibility requirements—to women, families, and children who, for reasons of personal preference, economic or psychosocial need, or illegal status, seek this help. The siting of neighborhood health centers favors communities having high concentrations of low-income and immigrant populations, but families are not required to use these centers.

- The cheery decor of neighborhood centers, their spacious waiting rooms equipped with toys for children and informal seating for adults, and the friendly, unhurried manner of staff welcome families, invite them to focus on their children, and reassure them of their ability to meet their responsibilities.

- Neighborhood health centers refer their clients as quickly as possible into the general network of medical care, social services, and education used by the rest of the population. Neighborhood centers
do not isolate their users but are a 
doorway into the broader society.

COMMUNITY STRATEGY

Exercise vigilance and do outreach, neighborhood by neighborhood, to identify women and children at risk while there is still time to help families take responsibility for solving their own problems.

- Every local jurisdiction has a sociomedical health agency dedicated to identifying and serving women and children who may need extra assistance to benefit from preventive and therapeutic services and avert medical, social, psychological, or environmental risk.

- Local agencies concentrate their search for women and children at risk during prenatal and early childhood years. They review health data about the population in their jurisdictions, conduct home visits to families likely to need extra assistance, and work collaboratively with other professionals and agencies to ensure continuity of care for mothers, children, and families at risk.

- Physicians in private practice support the work of local health agencies by assisting them in identifying and contacting families at risk. Local agencies support physicians by seeking to ensure that every child and family they see has a medical provider.

- Child care and education programs play a major role in surveillance, outreach, and direct services aimed at ensuring universal preventive care for all young children, and the integration into community life of children with special needs. Child care and education programs are a key point of surveillance for vaccinations, a setting from which children are referred to medical and therapeutic specialists, and a setting for the delivery of universal preventive health examinations to four year olds.

WORKPLACE STRATEGY

Adjust working conditions and hours for pregnant women to reduce stress and the likelihood of preterm delivery, and offer paid maternity and other parental leaves, with job security, to permit families time to nurture very young children.

- Employers are encouraged to offer job changes and flexible rest and commuting hours to pregnant women to reduce the stress that may lead to premature delivery.

- Universal paid maternity leaves with job security ensure that mothers who bear or adopt children will be able to spend critical early weeks with them to promote bonding and healthy child development.

- Part-time work arrangements and unpaid parental leaves with job security permit parents to balance family and work responsibilities during children's earliest years. A national family allowance stipend helps to offset the cost to the employee of taking an unpaid leave.

HOME-FOCUSED STRATEGY

Create specific expectations for families regarding their responsibilities to the next generation, and offer respect, incentives, and information to promote the fulfillment of these obligations.

- Clear sets of social expectations, codified in law but typically oper-
iating without sanctions, influence families to follow a schedule of preventive health care examinations during preconceptional and prenatal periods and during a child's preschool years.

- Family competence is developed and recognized through the use of the carnet de santé (health record notebook) that families receive at every child's birth and use intensively during a child's early years. Similarly, a carnet de santé de la maternité encourages expectant mothers to follow a schedule of prenatal examinations.

- Financial incentives promote universal participation in prenatal and child health examinations and offset disparities in the use of preventive care by different social classes.

These systemic strategies of PMI, in which all major elements are interlinked, may appear to be rooted in a unique culture and history. By implication, one may be tempted to say, the United States can derive few lessons relevant to American society.

We strongly believe otherwise. We find the French PMI a compelling frame of reference for the United States. It is a universal system under local control, and is based on a strong partnership of private and public sectors. Long-term and evolutionary in nature, PMI's primary features are the result not of reinventing institutions but of giving a special priority to families and children within the context of existing economic and social policies.

Nearly 50 years ago, the French launched PMI in the wake of war, with few resources, but with an imperative need to embrace a common vision of a better future. Today, the United States confronts a different kind of disruption of families and society, but Americans are similarly seeking the grounds of reengagement in the common and essential tasks of shoring up the foundations of family and child well-being for the sake of our national future. Like France, the United States can and must support the simple acts of reaching out to individual families, accompanying women and children through periods of fear and risk, and allowing time and creating places for families to learn how to nourish and strengthen children. Unless we invest public and private resources to cultivate and sustain these constituents of social trust in every community, we cannot deliver—much less mandate—preventive health care or any other vital services that flow from the responsibilities of families and society to each other.

The French PMI is a strong source of encouragement and a realistic challenge to Americans. PMI shows what
it is possible to achieve with sustained national commitment. It also challenges us to waste no time to complete the task already begun in many states and communities, and in federal policies, to create an equally effective American system to protect mothers and children, and through them, our own future.
## Appendix A

**PMI AGENCY EXPENDITURES IN CÔTE-D'OR AND SEINE-SAINT-DENIS**

<table>
<thead>
<tr>
<th>Category of Expenditure</th>
<th>Côte-d'Or</th>
<th>Seine-Saint-Denis</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Births/year 6,300</td>
<td>Births/year 24,700</td>
</tr>
<tr>
<td></td>
<td>Children &lt; 6 = 40,000</td>
<td>Children &lt; 6 = 138,900</td>
</tr>
<tr>
<td>Expenditure (000s)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Births/year</td>
<td>24,700</td>
<td></td>
</tr>
<tr>
<td>Children &lt; 6</td>
<td>138,900</td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>$3,667</td>
<td>$37,954</td>
</tr>
<tr>
<td>Annual Expenditure Per Child Under 6</td>
<td>90 (actual amount)</td>
<td>273 (actual amount)</td>
</tr>
<tr>
<td>I. Total Family Planning and Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Health consultations, interviews</td>
<td>340</td>
<td>4,022</td>
</tr>
<tr>
<td>Information and education</td>
<td>225</td>
<td>3,511</td>
</tr>
<tr>
<td>Contraceptives, prescriptions</td>
<td>21</td>
<td>191</td>
</tr>
<tr>
<td>Laboratory tests</td>
<td>11</td>
<td>99</td>
</tr>
<tr>
<td>Social workers</td>
<td>76</td>
<td>NA</td>
</tr>
<tr>
<td>Services related to sexually</td>
<td>7</td>
<td>53</td>
</tr>
<tr>
<td>transmitted diseases and HIV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Total Prenatal Services:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Identification, PMI Center Care, and Home Visits</td>
<td>445</td>
<td>7,810</td>
</tr>
<tr>
<td>Review of pregnancy declaration forms and collaborative procedures of risk assessment</td>
<td>29</td>
<td>359</td>
</tr>
<tr>
<td>Health consultations and examinations in PMI centers</td>
<td>14</td>
<td>3,206</td>
</tr>
<tr>
<td>Home visits by midwives</td>
<td>209</td>
<td>1,450</td>
</tr>
<tr>
<td>Household help for pregnant women at risk</td>
<td>49</td>
<td>565</td>
</tr>
<tr>
<td>Travel costs for home visits</td>
<td>23</td>
<td>8</td>
</tr>
<tr>
<td>Tests</td>
<td>14</td>
<td>696</td>
</tr>
<tr>
<td>Social workers</td>
<td>107</td>
<td>1,526</td>
</tr>
<tr>
<td>III. Total Young Child Services:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Identification, PMI Center Care, and Home Visits</td>
<td>1,197</td>
<td>19,870</td>
</tr>
<tr>
<td>Review of child health certificates and collaborative procedures of risk assessment</td>
<td>76</td>
<td>137</td>
</tr>
<tr>
<td>Service Description</td>
<td>Category I</td>
<td>Category II</td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td>------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Visits of puérultrices to maternity wards</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Home visits by puérultrices</td>
<td>206</td>
<td>595</td>
</tr>
<tr>
<td>Health consultations and examinations in PMI centers</td>
<td>328</td>
<td>15,268</td>
</tr>
<tr>
<td>Household help for home with children at risk</td>
<td>88</td>
<td>76</td>
</tr>
<tr>
<td>Collaboration to help children in imminent danger of harm</td>
<td>46</td>
<td>992</td>
</tr>
<tr>
<td>Travel costs</td>
<td>49</td>
<td>8</td>
</tr>
<tr>
<td>Social workers *</td>
<td>366</td>
<td>2,756</td>
</tr>
</tbody>
</table>

**IV. Total Child Care and Children with Special Needs**

<table>
<thead>
<tr>
<th>Service Description</th>
<th>Total I</th>
<th>Total II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and monitoring of family child care providers</td>
<td>30</td>
<td>1,985</td>
</tr>
<tr>
<td>Licensing of family child care providers and administrative costs</td>
<td>152</td>
<td>916</td>
</tr>
<tr>
<td>Health examinations in écoles maternelles</td>
<td>534</td>
<td>1,069</td>
</tr>
<tr>
<td>Participation in CAMSP programs for children with special needs</td>
<td>422</td>
<td>137</td>
</tr>
<tr>
<td>Monitoring of child care centers</td>
<td>38</td>
<td>397</td>
</tr>
<tr>
<td>Examinations of children in infant-toddler centers (rarely performed by PMI)</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Social workers *</td>
<td>396</td>
<td>298</td>
</tr>
</tbody>
</table>

**V. Total Administrative Costs**

| Total Administrative Costs | 104 | 1,450 |

**Sources:** PMI agencies in Côte-d'Or and Seine-Saint-Denis.

1. Francs have been converted to dollars using OECD's 1992 conversion factor ($1ppp) of 6.55 francs to the dollar, which takes into account differences in cost of living.

2. The PMI budget divided by the entire population of young children in the PMI jurisdiction.

3. PMI services in both Côte-d'Or and Seine-Saint-Denis are financed by decentralization block grants from the national government. These grants are based on formulas of historical origin that reflect, in part, differences in income levels of the populations served. In addition, in Seine-Saint-Denis, national health insurance funds finance a significant portion of the PMI budget and are another reason for the large disparity in expenditures per child between the two départements. Finally, local priorities in both départements affect the proportions of total revenues allocated to maternal and child health. Both départements greatly exceed the national average annual PMI expenditure per child under 6, which is about $63.

4. Social workers are not salaried by PMI agencies but are essential members of PMI sociomedical teams. The sum of expenditures for social workers in categories III and IV corresponds exactly to the data received from France; however, the amounts shown in each category are prorated; they are the same proportions of the sum for social workers in categories III and IV, as each category is the sum of the two categories.

5. These non-PMI budget items are included here because they are an integral part of PMI family planning services.
Appendix B

MATERNAL AND CHILD HEALTH CARE PROJECT SITE VISITS AND MEETINGS
January 9-21, 1994

Hospitals
Hôpital Saint-Antoine, Paris
Hôpital des Métallurgistes (Les Bluets), Paris
Hôpital Port-Royal, Paris
Hôpital Trousseau, Paris
Hôpital La Peyronie (University Hospital Center), Montpellier
American Hospital of Paris

PMI Centers
One in Côte-d'Or
One in Hauts-de-Seine
One in Hérault
Three in Paris
Two in Seine-Saint-Denis

CAMSP
One in Côte-d'Or
One in Hérault

Training Institutions
École des Sage-Femmes, Baudelocque Hospital, Cochin Hospital Group, Paris
École de Puériculture, Institut de Puériculture, Paris

Neighborhood Associations
La Passerelle Association for the Integration of Handicapped Children, Hauts-de-Seine
Le Baobab Family Association, Hérault
La Goutte d'Or Neighborhood Association, Paris
Elele Turkish Women's Group, Paris
Solidarité France Migrants, Paris
L'Arbre Bleu Family Association, Paris

Écoles Maternelles and Crèches
Three in Hauts-de-Seine
Three in Hérault
Two in Côte-d'Or

Home Visits
In fourteen diverse Paris neighborhoods
In the city of Lunel, Hérault

Organizations
National Institute for Health and Medical Research (INSERM)
Academy of Medicine
National Syndicate of PMI Doctors
National Committee on Vaccinations
Demographic Institute of the University of Paris
French Movement for Family Planning
CRESAS
International Center on Childhood
SOLENSI
UNIOPS

National Ministries
Ministry of Social Affairs

Municipal and Département Offices
General Council, Côte-d'Or
General Council, Hauts-de-Seine
General Council, Hérault
Municipal Council, City of Paris
General Council, Seine-Saint-Denis
Department of Social Affairs, Côte-d'Or
Department of Social Affairs, Hauts-de-Seine
Department of Social Affairs, Hérault
Department of Social Affairs, City of Paris
Department of Health, Child and Family Affairs, Paris
Department of Child and Family Affairs, Seine-Saint-Denis
Department of Children's Services, Hauts-de-Seine
PMI Service, Côte-d’Or
PMI Service, Hauts-de-Seine
PMI Service, Hérault
PMI Service, Paris
PMI Service, Seine-Saint-Denis

Businesses
Pasteur-Mérieux
Belin Biscuit Manufacturers, subsidiary of
BSN Agroalimentary products, Evry
LABO Industrie, Nanterre

SITE VISITS BY THE FRENCH-AMERICAN FOUNDATION MCH DELEGATION

Key
1. Paris (capital and département)
2. Town of Nanterre in département of Hauts-de-Seine
3. Département of Seine-Saint-Denis
4. Town of Evry in département of Essonne
5. Town of Dijon in département of Côte-d’Or
6. Town of Montpellier in département of Hérault
Appendix C

MEMBERS OF THE DELEGATION

Charlette Beyerl, Executive Director and CEO, Wisconsin Independent Physicians Group, Inc.

Doris J. Biester, R.N., Ph.D., F.A.A.N., Senior Vice President for Patient Care Services, The Children's Hospital of Denver

Sara Ann Reed DePersio, M.D., M.P.H., Deputy Commissioner for Personal Health Services, Oklahoma State Department of Health

John V. Federico, M.D., Medical Director, Clinical Policy, Aetna Health Plans

Birt Harvey, M.D., Professor Emeritus of Pediatrics, Stanford University School of Medicine

Betty King, Director of Administration and Operations, The Annie E. Casey Foundation

Ruth W. Lubic, C.N.M., Ed.D., F.A.A.N., General Director, Maternity Center Association

C. Arden Miller, M.D., Professor of Maternal and Child Health, School of Public Health, University of North Carolina at Chapel Hill

Helen Muñoz, M.S.W., C.S.W., Vice President for National and Community Programs, National Coalition of Hispanic Health and Human Services Organizations

Robert K. Ross, M.D., Director, Department of Health Services for San Diego County

Charlene B. Rydell, Member, Maine House of Representatives; Chair, Perinatal and Child Health

Steering Committee, National Academy of State Health Policy

Lisa Simpson, M.B., B.Ch., M.P.H., Senior Advisor to the Administrator, Health Care Policy and Research, U.S. Department of Health and Human Services; Project Rapporteur

Barry S. Zuckerman, M.D., Professor and Chairman, Department of Pediatrics, Boston City Hospital/Boston University School of Medicine

Project Staff

Gail Richardson, Ph.D., Project Director
Neil Rivière-Platt, Project Coordinator in France
Susan Baker Watts, M.P.A., Project Director, Phase II: Outreach and Public Education
Ellen Pope, Project Associate
John Warner, Project Assistant
Violaine Lenoir, Project Assistant
Appendix D

INTERNATIONAL BOARD OF DIRECTORS

Chairman
Walter J. P. Curley

Vice Chairman
Jean Dromer

Frederick M. Alger III
Claude Bébér
Eric Boissonnas
Michel Bon
Joan R. Challinor
Anne Cox Chambers
Bertrand Collomb
Michel David-Weill
Philippe Dennery
C. Douglas Dillon
Mrs. Charles W. Engelhard
Mrs. Anastassios Fondaras
Evan G. Galbraith
Jean Gandois
E. Nicholas P. Gardiner
Charles B. Grace, Jr.
John H. J. Guth
Pierre Haas
Mrs. David R. Hamilton
Arthur A. Hartman
Serge Hurtig
John N. Irwin, II
John N. Irwin, III
Yves-André Istel
Michel Jaoul
Philippe Lemoine
Troland S. Link
Marceau Long
James G. Lowenstein
Joanne Lyman
John D. Macomber
Mrs. Anthony D. Marshall
William B. Matteson
David T. McGovern
Jérôme Monod
Michael E. Patterson
Arthur King Peters
Olivier Philip
Felipe Propper de Callejon
Yves H. Robert
Alfred J. Ross
Nico Salinger
Ernest A. Seillière
Leonard L. Silverstein
Marie-Monique Steckel
Edward H. Tuck
Arnaud F. de Vitry d’Avaucourt
Nicholas Wahl
J. Robinson West
Mrs. William Wood-Prince
French-American Foundation

New York and Paris

41 East 72nd Street, New York, New York 10021
102, Avenue Du Maine, 75014 Paris