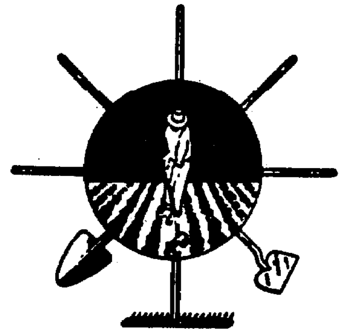
FARMWORKER JUSTICE FUND, INC.
2001 S Street, N.W., Suite 210
Washington, D.C. 20009
(202) 462-8192



Testimony to the Commission on Security and Cooperation in Europe

by Valerie A. Wilk

October 9, 1992

Introduction

Agriculture consistently ranks as one of the three most dangerous occupations in the United States, along with mining and construction. The hired farmworker men, women, and children who tend and harvest our nation's crops face a number of hazards in the workplace. For example, transportation of farmworkers to and from the fields in overcrowded trucks and vans which have had all seats and seat belts removed in order to pack in as many workers as possible, and which are driven by unlicensed, uninsured, and intoxicated drivers has resulted in vehicle overturns and crashes in which dozens of workers have been killed or maimed.

Pesticide poisoning, falls from ladders, back strain from heavy lifting and prolonged bending, and farm machinery-related injuries and deaths are other hazards. Where workers lack drinking water, toilets, and wash water in the fields--and evidence shows that only a small percentage of farm employers fully comply with the federal field sanitation regulations--workers face an increased risk of contracting parasitic infections and other communicable diseases as well as of developing urinary tract infections, and suffering heat stroke or pesticide poisoning. Overcrowded, unsanitary living and working conditions make tuberculosis a growing occupational risk for farmworkers.

I will focus the rest of my remarks on the issue of pesticide exposure to migrant and seasonal farmworker adults and children.

Pesticide Use and Worker Exposure

About 70 percent of the 1.2 billion pounds of pesticide products sold each year in the United States are used in agriculture.

Farmworkers are on the front lines of exposure to pesticides. They absorb pesticides through the skin as they touch foliage and produce that has been treated with pesticides. Too often they get drenched with pesticide sprays while they work in the fields--a clear violation of the federal pesticide law. A pesticide being applied to a field or a work area in a nursery or greenhouse may drift onto workers in adjacent fields or work areas. Migrant farmworkers and their families live in labor camps that are often in the very fields that are being sprayed. Workers may breathe pesticides, drink pesticide-contaminated water, or swallow pesticide residues on food or from workplace contact.

Health Effects

Pesticide exposures put farmworkers at risk for acute or short-term health problems such as pesticide poisoning, skin and eye burns, and rashes. Severe poisoning can be fatal. Moderate or mild poisoning can cause a variety of symptoms, such as nausea, blurred vision, headaches, dizziness, muscle cramps, and vomiting. These immediate symptoms may linger for months after a worker is poisoned.

Human health studies and case reports have linked pesticide exposure to a variety of long-term or chronic health effects. These include: cancers such as

leukemia, non-Hodgkin's lymphoma (a lymph node cancer), and multiple myeloma (bone cancer) in adults, and leukemia and brain cancer in children; reproductive effects such as birth defects, spontaneous abortion, sterility, and menstrual dysfunctions; liver and kidney dysfunction; nervous system effects, including problems with motor coordination and thought processes, anxiety, and depression; and abnormalities in the immune system.

Policy Issues and Recommendations

1. Farmworkers must have the right to know what pesticides are used at their workplace and the right to take action where unsafe workplace practices exist.

Even though the Hazard Communication (or Right to Know) regulations issued by the Occupational Safety and Health Administration (OSHA) cover agriculture, the regulations have not been enforced to protect farmworkers. The federal pesticide law, FIFRA (the Federal Insecticide, Fungicide, and Rodenticide Act), does not include a *right to know provision for farmworkers. Farmworkers do not have legal protections to* refuse dangerous work or to take other actions where unsafe conditions exist.

New Environmental Protection Agency (EPA) worker protection regulations, which were issued in August 1992 and which will go into effect next year, will require that workers get specific pesticide information. Additionally, EPA has proposed hazard communication regulations which will become part of the worker protection regulations. The comment period for those proposed regulations ends October 20th. The most important point about hazard communication is that all information being conveyed must be understandable and usable by farmworkers. Fact sheets must be written at a fourth grade reading level and be available in languages that workers

understand.

The example of Benlate--The current situation with the fungicide Benlate, used extensively in the nursery, fern, and greenhouse industries in Florida, illustrates the need for farmworkers' right to know. Since early 1992, Florida growers who suffered crop destruction from Benlate have been reporting a variety of health problems ranging from cancer, birth defects, and central nervous system problems such as severe and frequent headaches, to respiratory problems such as shortness of breath, and swollen, achy joints and chronic fatigue.

The Florida Department of Health and Rehabilitative Services interviewed these growers and their affected family members and issued a report in September 1992 which called for EPA, the Centers for Disease Control, and the National Institute for Occupational Safety and Health to further investigate the situation.

However, the State did not interview any of the employees of the ill growers. Instead, the State acknowledged that were workers aware of the situation with Benlate, hundreds might seek medical care and file workers' compensation claims.

The Farmworker Association of Central Florida, a multi-racial, multi-ethnic farmworker membership organization with offices in Apopka and Pierson, has issued demands to the State about Benlate. Among the Association's demands are that the State notify farmworkers about which growers have used Benlate and that farmworkers and their health care providers receive health effects information. A copy of the Association's recent press release is attached to my statement.

Community Health Centers, the Migrant Health Center in Apopka, has called for the Florida Health Department to provide treatment and illness reporting information to them and to other clinicians treating farmworker patients. We are working with both the

Association and Community Health Centers as part of our Farmworker Health and Safety Institute, which is funded by the W.K. Kellogg Foundation and the Nathan Cummings Foundation.

2. Enforcement of federal and state pesticide laws and of the federal field sanitation regulations must be beefed up.

Even the strongest laws on the books will not protect farmworkers if those laws are not enforced. One of the most egregious examples of the lack of pesticide enforcement and the problems that farmworkers and communities suffer is a 1990 report examining state agency enforcement of federal and state pesticide laws in Arizona. That State's Auditor General's office found that officials routinely refused to investigate complaints or discouraged field inspectors from doing so, conducted incomplete investigations of complaints, and refused to fine even the most flagrant repeat violators.

This example highlights the need for farmworkers to have the statutory right to sue employers to protect themselves. The private right of action is the most effective measure to ensure employer compliance with pesticide protections.

Additionally, enforcement of the field sanitation regulations by the Occupational Safety and Health Administration (OSHA) must be more vigorous.

3. The federal pesticide law must be changed to adequately protect farmworkers.

The federal pesticide law--the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)--is a chemical registration law, not a worker health and safety law. Yet farmworker pesticide health and safety issues are regulated under FIFRA.

As mentioned earlier, farmworkers should not be forced to solely rely on unresponsive federal and state agencies to enforce the law against violating employers. Farmworkers need the right to sue employers who fail to obey the law.

FIFRA contains no statutory protection against employer retaliation towards workers who ask questions about pesticide safety or who reports pesticide violations to the proper authorities. Farmworkers around the country have told us that they fear being fired if they take such actions. We will closely monitor how effectively the anti-retaliation provision in the new EPA worker protection regulations protects farmworkers who assert their rights.

4. Farmworkers must have the right to organize and bargain collectively.

Farmworker unions have gained workplace health and safety protections for their members beyond any federal or state protections. The United Farm Workers of America and the Farm Labor Organizing Committee contracts have included protections that have not been guaranteed for non-unionized workers. For example, union contracts contain bans on the use of certain pesticides, worker right to know, and provision of field sanitation facilities.

5. Special interest groups successfully block farmworker health and safety legislation and regulations, including pesticide reforms, in the U.S. Congress.

FIFRA is under the jurisdiction of the Agriculture Committees. These committees are heavily influenced by the special interest agribusiness and chemical industry lobbies. These lobbies have successfully opposed comprehensive pesticide recordkeeping requirements and stalled the issuance of the EPA worker protection

regulations. They are currently lobbying for weakening of reregistration requirements for pesticides used extensively in hand-labor-intensive crops.

6. Unsafe, incompletely tested pesticides are on the market. The current system protects chemicals more rigorously than it does worker or public health. This must change.

Registration of a pesticide by the EPA does not mean that the chemical has been fully tested for adverse health effects. Despite the fact that some pesticides have been on the market for 30 years or more, and that the EPA has been in existence for 20, the EPA has conducted a complete assessment of only a handful of the over 400 active ingredients used in agricultural pesticide formulations.

We must see to it that EPA quickly bans pesticides that are too dangerous for worker or consumer exposure. We must reduce our dependence on toxic chemicals in agriculture and develop incentives that foster this move away from intensive chemical use. We must strengthen EPA's registration process so that dangerous pesticides are not allowed on the market in the first place.

7. The Migrant Health Program must continue to fund and emphasize environmental health services.

An important component of the Migrant Health Act is that migrant health centers provide environmental health services as part of their work. Migrant Health Centers need technical assistance and support to address the environmental and occupational health issues facing their farmworker patients. Unsanitary and overcrowded housing, the lack of field sanitation, and pesticide exposure are problems that contribute to

recurring medical visits.

Migrant Health Centers need help in tackling these problems and in learning about environmental and occupational health policy issues. The Migrant Environmental Services Assistance or MESA project run by the Rural Community Assistance Program, Leesburg, Virginia, has provided such support to Migrant Health Centers for over 12 years.

Conclusion

Farmworkers and their families must be protected from a harvest of illness, injury, and death from exposure to poisons, and from other deadly and unhealthy workplace conditions. These briefings by the Helsinki Commission are a valuable way to bring these conditions to the attention of the U.S. Congress and to the American people.

Farmworker Health for the Year 2000

1992 Recommendations of the National Advisory Council on Migrant Health

Acknowledgments

The National Advisory Council gratefully acknowledges the special contributions of the following individuals in reviewing the recommendations and guiding the development of the background papers:

Farmworkers and Experts Who Provided Testimony at Council Hearing,
Fort Lupton, Colorado, September 7, 1991

Sylvia Corral, MD, Salt Lake City Community Health Centers, Inc.

Carter Crafford, The MITRE Corporation

Leah Dobkin, American Association of Retired Persons

Jack Egan, Bureau of Health Care Delivery and Assistance,
Migrant Health Program

Charlene A. Galarneau

Phyllis J. Henderson, MD, Yakima Valley Farmworkers Clinic,
Medical Mental Health Services

Kim Larson, RN, MPH

Lawrence Li, MD, MPH, University of Utah, Department of Family and
Preventive Medicine, Division of Family Medicine

George S. Rust, MD, Morehouse School of Medicine,
Department of Family Medicine

Kim Sibilsky, National Rural Health Association

Don Weaver, National Health Service Corps

The 1992 Recommendations were developed by the National Advisory Council on Migrant Health and produced by the National Migrant Resource Program, Inc., 2512 South IH35, Suite 220, Austin, TX 78704, (512) 447-0770. Funding for the National Advisory Council is provided by the U.S. Department of Health and Human Services, Bureau of Health Care Delivery and Assistance, Migrant Health Program.

Copyright © January 1992 by National Advisory Council on Migrant Health.

National Advisory Council on Migrant Health

Membership Roster

EXECUTIVE OFFICERS

Chairperson:
Duran, David
Migrant/Hispanic Liaison
State of Wisconsin, DHSS
Division of Economical Support
Madison, WI
Term: 01/19/89-11/25/95

Vice Chairperson:
Galarneau, Charlene A.
Belmont, MA
Term: 11/26/88-11/25/92

MEMBERS

Alaniz, Gilberto
Director of Operations
Washington Human Development
Sunnyside, WA
Term: 04/15/91-11/25/94

Garrison, William
High Hope Orchard
East Flat Rock, NC
Term: 07/02/86-11/25/93

Gutierrez, Manuel de Anda
La Clínica del Cariño
Hood River, OR
Term: 12/02/87-11/25/95

Lucero, Ricardo
Executive Director
Sunrise Community Health Center
Greeley, CO
Term: 04/05/91-11/25/94

Martinez, Zoila
Fort Myers, FL
Term: 04/05/91-11/25/93

Merla, Olga
Harlingen, TX
Term: 04/05/91-11/25/94

Rivera, Angel L.
Cidra, PR
Term: 04/05/91-11/25/93

Vargas, Consuelo
Outreach Worker
Economic Opportunity Planning Association (EOPA)
Toledo, OH
Term: 11/26/88-11/25/92

Viveros, Arcadio
Chief Executive Officer
United Health Centers of San Joaquin Valley, Inc.
Parlier, CA
Term: 04/05/91-11/25/94

Zavaleta, Dr. Antonio N.
Executive Director
COPRIMA
Brownsville, TX
Term: 11/26/88-11/25/92

NEW APPOINTEES

Duran, Juan
Crystal City, TX
Term:01/06/92-11/25/93

Pelham-Harris, Patricia
Medical Director
Ogelthorpe Family Medical Center
Crawford, GA
Term:1/06/92-11/25/93

OUT-GOING MEMBERS

Acosta, Robert M., D.O.
Fremont, CA
Term: 01/06/87-04/04/91

Broyles, Catalina
Litchfield Park, AZ
Term: 04/05/91-06/16/91

Foster, Levon
Belle Glade, FL
Term: 11/27/87-04/04/91

Hill, Deborah
Lockport, NY
Term: 07/18/86-04/04/91

Huerta, Ventura P.
Sequoia Community Health Foundation
Fresno, CA
Term: 01/06/87-04/04/91

Lopez, Armando
Parlier, CA
Term: 11/27/87-04/04/91

Loredo, Ernesto G.
Poplar, CA
Term: 11/29/87-11/25/91

Pond, Wadis
Wolcott, NY
Term: 08/11/86-04/04/91

Williams, Frederick
Panama City, FL
Term: 02/03/89-11/25/91

MIGRANT HEALTH PROGRAM STAFF SUPPORT

Egan, Jack
Acting Executive Secretary

Kavanagh, Helen
Staff Support, Executive Committee

Puente, Ana Maria
Staff Support, Family Issues Subcommittee

Suzuki, Nami
Staff Support, National Leadership Subcommittee

CONTRACTUAL SUPPORT

Ryder, Roberta, Consultant
National Migrant Resource Program, Inc.

Scnear, Marilyn, Recorder
National Migrant Resource Program, Inc.

Wallace, Dr. Les
Facilitator/Consultant
Signature Resources

Mayatech Corporation
Logistical Support

National Advisory Council on Migrant Health

1992 Recommendations

The following recommendations are built upon the foundation of prior years' recommendations, testimony which was presented to the Council in 1991, and ensuing deliberations within the council. A bibliography and comprehensive background statements have been developed to further expand upon each recommendation. **Inherent in each recommendation are the following assumptions:**

- Farmworkers are an employed working class contributing to the economies of the communities in which they live and work. They are America's working poor.
- Farmworkers as a population are no more and no less deserving of the right of access to "safety net" programs than any other group of Americans.
- Their low level of access to services is due to the system's failure to accommodate a migratory work pattern.
- Farmworkers are not to blame for that lack of access; rather, they are a casualty of the system's lack of flexibility.

Nowhere is their dilemma better exemplified than in the administrative practices of the Medicaid program, which cannot accommodate a population which moves from state to state.

The Council also contends that it was not the intent of Congress that the PHS 329 Migrant Health Program meet all of the health needs of this population; rather, these funds should be used in conjunction with all other federal and state public service programs in order to assure the safety and health of farmworkers. **Therefore, we enlist the Secretary's response in order to assure that:**

- All currently available resources are mobilized to also serve farmworkers.
- Migrant-cognizant representation is included in all facets of the Department's activities.
- The Department assumes the responsibility and provides the leadership for coordination of efforts among all other federal agencies and departments.

In 1988, the Migrant Health Program was re-authorized to include specific language regarding case management. Case management must occur at the local level, with the patient the direct recipient of the service. However, it must also occur at a national policy level, between agencies and departments. The Council hereby solicits the Secretary's advocacy at the cabinet level in order to create such a national "case-managed" approach to interagency planning on behalf of farmworkers.

The following recommendations have been developed as practical approaches to secure inclusion of farmworkers in programs which are designed to assure the safety and health of all Americans.

1. Housing

The Council recommends that the Secretary establish an interagency work group, comprised of representatives from HUD, FmHA, Department of Agriculture, and Department of Labor, to analyze the problem of inadequate and unsafe housing for farmworkers and implement immediate and long range solutions to ameliorate this problem.

2. Outreach

Farmworkers, by the nature of their work and lifestyle, are an extremely hard-to-reach population. Conventional strategies to provide health care services have been less than effective. The Council recommends that the Secretary designate resources to expand community outreach services to farmworkers. All new federal initiatives should include a migrant component and a special allocation for this population, thereby making health care more available, accessible, and acceptable. In addition, emphasis should be placed on testing special outreach programs for effectiveness with the farmworker population.

3. Mental Health

Farmworkers are desperately in need of access to mental health and family counseling services. They are less able to access existing community mental health services than many populations due to their constant mobility and the unavailability of culturally sensitive and bilingual mental health professionals. The Council recommends that the current state of crisis in the farmworker family be recognized by the Secretary, and that efforts be initiated to integrate the mental health needs of farmworkers with the services of all federally-funded mental health programs.

4. Appropriations/Re-Authorization

Current migrant health funding reflects an annual expenditure of approximately $100 per user per year, and a penetration rate of approximately 12 percent. If PHS 329 dollars are to be the primary source of health care for farmworkers, that appropriation must be increased in order to reflect a commitment of resources more in keeping with expenditures for other populations. The Council recommends an annual appropriation of $90 million for the Migrant Health Program and comprehensive perinatal care services for F.Y. 1993, with incremental increases thereafter, and requests the Secretary's support of this targeted increase.

5. Medicaid

Great attention has been given to the development of interstate compacts as a means of assuring reciprocity of eligibility and coverage for migrating farmworkers. This alternative should be pursued both legislatively and administratively. However, this effort only partially addresses the problems encountered by farmworkers attempting to participate in the Medicaid program. The increased financial burden to each participating state creates very real disincentives to enrollment of new participants. The Council recommends that a national demonstration program be initiated which would annualize income and standardize eligibility criteria. The goal of such a program would be to enroll farmworkers in the Medicaid program and to eliminate all barriers to that enrollment. A national set-aside of funds for this purpose would eliminate the local disincentives previously mentioned. A national demonstration program would also afford the federal government an opportunity to test one or more models of "national health insurance" as cost-effective alternatives to the runaway costs currently encountered in the Medicaid system.

6. Health Professions

It is critical that solutions for health professions training for migrant and community health centers be multi-disciplinary and both short and long range in nature. By this we mean that efforts should focus not only upon physicians, but also upon nurses, dentists, hygienists, environmentalists, social workers, nutritionists, etc., since the delivery of care to migrant populations requires a team approach. Solutions to yield immediate results for the health professional shortage must be put in place, as well as long range solutions. Specifically, the Council recommends that the Secretary implement programs which will:

- Collaborate with Migrant Education and Department of Labor programs to train migrant youth in allied and clinical health professions.
- Expand loan repayment programs to include the full range of health professionals, especially nurses.
- Provide incentives for health professions training programs to offer more opportunities for training in migrant health programs, including formal linkages with these programs.
- Increase recruitment and retention of minority, Spanish-speaking, and/or culturally sensitive health professionals.
- Place emphasis upon training and placement of dental professionals.
- Establish creative, effective ways for health centers to provide incentive packages which improve retention of providers in all health professions.

7. Family Issues

The Council strongly recommends that all special projects which are designed to strengthen the family include a specific farmworker component in order to assure relevancy to the migrant family. The Council also salutes the women of farmworker families as the central core of the family, and requests that the Secretary's current focus upon women and families be expanded to include farmworker women.

8. Research

Anecdotal information has highlighted various aspects of the hardships of migrant health and lifestyle. However, clinicians, administrators, policy makers, and researchers have been unable to effectively make changes because of the lack of an integrated perspective and sense of priorities for migrant health. Specifically, estimates of the size of the migrant and seasonal farmworker population vary widely. Basic health status indicators such as age-related death rates are unknown. Prevelance rates of the most common causes of death in the U.S. have yet to be studied. Health manpower recruitment and retention strategies have not been adequately characterized for migrant and community health centers. The Council recommends that the Secretary make an overall commitment on behalf of the Department to obtaining health status indicators on farmworkers by sex and age by 1994, and on various farmworker sub-populations by 1998. This will require the commitment of non-service delivery funds to conduct research, assess effective intervention strategies, and evaluate policy impact. The Council recommends that at least one percent of PHS329 evaluation funds be dedicated to migrant-specific research efforts, and that every effort be made to secure resources from AHCPR, NIH, and CDC for the same purpose.

Housing

Migrant farmworkers are temporary residents of the communities in which they work. They provide the temporary, seasonally intensive labor that large-scale and diverse agriculture requires in order to produce crops. The communities that use the labor of migrant farmworkers cannot support permanent work forces large enough to bring their crops in due to the seasonal nature of crop production. Growers depend on the large supply of intermittent labor provided by farmworkers, and the workers depend on the income from their labor. Each would suffer in the absence of the other.

Migrant farmworkers sometimes travel singly, but frequently are accompanied by their families, many of whom also work in the fields. The need of the migrant farmworker population for temporary housing during the peak crop harvesting and packaging seasons has traditionally been met by growers in the form of labor camps.[1,2]

Labor camps have always fallen short of the ideal. A U.S. Department of Agriculture Handbook published in 1970 stipulates that the basic requirements of housing for migrant farmworkers include well-built houses made of materials appropriate to their uses, with adequate lighting and ventilation, access to safe water, and adequate space for the number of people inhabiting each house. The handbook also suggests landscaping the grounds and providing recreation areas and child care facilities. A study of actual migrant farm laborer housing undertaken on behalf of the Department of Health, Education, and Welfare in 1978 revealed a prevalence of housing that was overcrowded, unsanitary, and unsafe, and that sometimes failed to even shelter the occupants from the elements.[2]

The housing sampled in the study ran the gamut from wholly uninhabitable to in need of repair. Of the camps sampled, 53.5 percent required repair and 5.6 percent required replacement. 71.8 percent were judged sound, while 26.8 percent were deemed deteriorated and hazardous. The average number of rooms in a single family dwelling was between one and 2.6, with the average dimensions of rooms being 10'x12' to 12'x15'. Indoor running water was available in only 64.8 percent of the camps, and 21.1 percent relied on privies for raw sewage disposal, while an additional 7 percent resorted to a combination of privies and portable toilets to meet this need. Two thirds of the units lacked any kind of heating system, although they were located in latitudes where heating was necessary. Only about a third of the units possessed interior hygienic facilities. Most of the facilities were inadequately ventilated and did not meet fire escape standards, having only one exit. Bedrooms usually lacked the capacity for the number of individuals housed in each unit, and laundry facilities were generally unavailable. In a large number of units kitchens doubled as sleeping quarters. Of the kitchens surveyed, half had no sink, a quarter had no refrigerator, and 60 percent had improperly vented stoves. Central bathroom facilities often lacked privacy partitions between toilets and fre-

quently did not provide enough toilets to be accessible to the number of workers on site. Barracks-type units designed to house large numbers of single men scored even worse, with 28.8 percent of the shelters not providing basic protection from the elements, and over 50 percent of the barracks not providing heat. The barracks were found to be overcrowded, and no two-story barracks building managed to meet fire escape standards. Even facilities that were licensed, and therefore presumably monitored, showed evidence of fly and mosquito breeding, rodent harborage, and trash burning as well as broken windows, torn screens, damaged steps, roofs, foundations and shells. Sanitation in the form of garbage storage and sewage disposal was found to be inadequate.[2]

The health implications of these housing conditions are alarming. Cold, damp interiors are associated with an increased incidence of otitis and respiratory infections, which occur more frequently among farmworkers than in the general population.[3] The presence of a toilet in a sleeping area is associated with an increased incidence of gastrointestinal distress, anorexia, and gastroenteritis. Substandard and unheated rooms are associated with an increased incidence of measles and upper respiratory infections. Single-bed usage by families is associated with an increased incidence of impetigo and emotional distress. Multi-use sleeping rooms are associated with an increased incidence of bronchiectasis, disseminated tuberculosis, influenza, and tonsillitis. The lack of laundry and hygienic facilities leads to bathing and laundering in kitchen sinks, exposing food preparation surfaces to the pesticides and fertilizers that workers are exposed to in the fields.[2]

At the time (1978) the deplorable state of migrant farmworker housing was blamed on insufficient monitoring by regulatory agencies. OSHA was the primary federal regulatory authority in charge of monitoring migrant farmworker housing, and was considered to be doing a poor job due to a lack of personnel and to confusion concerning its mission in regard to migrant farmworker housing.[2] Since 1978, other agencies, most notably the Department of Labor Wage and Hour Division, have also assumed regulatory power over migrant farmworker housing, enforcing regulations more stringently and levying fines for substandard housing. Ironically, this has led to a deterioration rather than an improvement in standard of living for migrant farmworkers since the assessments of 1978.[4]

With stricter enforcement of standards regulating labor camps, many growers or camp operators are forced to choose between facing fines for violations, costs for renovations, or closing the camps. Many can afford no other option than to close the camps.[4] Jesus Tijerina, a crew leader, testified, "In the last year five camps in this area have closed. This means that more than 150 units have been closed. Usually in a unit you can have a family of five. The work has continued as before and the same amount of migrants keep coming back every year."[5] In areas where housing is only in use for part of the year, as is the case with most migrant farmworker housing, loan programs for farmworker housing (Sec. 514/516 Farm Labor Housing Program) do not meet the needs of growers and operators. In the absence of some type of affordable financial assistance, most growers are unable to respond to the housing needs of the migrant farmworker population. It is estimated that fewer than 5,000 new units have been built since 1980.[6] Yet,

Housing

Migrant farmworkers are temporary residents of the communities in which they work. They provide the temporary, seasonally intensive labor that large-scale and diverse agriculture requires in order to produce crops. The communities that use the labor of migrant farmworkers cannot support permanent work forces large enough to bring their crops in due to the seasonal nature of crop production. Growers depend on the large supply of intermittent labor provided by farmworkers, and the workers depend on the income from their labor. Each would suffer in the absence of the other.

Migrant farmworkers sometimes travel singly, but frequently are accompanied by their families, many of whom also work in the fields. The need of the migrant farmworker population for temporary housing during the peak crop harvesting and packaging seasons has traditionally been met by growers in the form of labor camps.[1,2]

Labor camps have always fallen short of the ideal. A U.S. Department of Agriculture Handbook published in 1970 stipulates that the basic requirements of housing for migrant farmworkers include well-built houses made of materials appropriate to their uses, with adequate lighting and ventilation, access to safe water, and adequate space for the number of people inhabiting each house. The handbook also suggests landscaping the grounds and providing recreation areas and child care facilities. A study of actual migrant farm laborer housing undertaken on behalf of the Department of Health, Education, and Welfare in 1978 revealed a prevalence of housing that was overcrowded, unsanitary, and unsafe, and that sometimes failed to even shelter the occupants from the elements.[2]

The housing sampled in the study ran the gamut from wholly uninhabitable to in need of repair. Of the camps sampled, 53.5 percent required repair and 5.6 percent required replacement. 71.8 percent were judged sound, while 26.8 percent were deemed deteriorated and hazardous. The average number of rooms in a single family dwelling was between one and 2.6, with the average dimensions of rooms being 10'x12' to 12'x15'. Indoor running water was available in only 64.8 percent of the camps, and 21.1 percent relied on privies for raw sewage disposal, while an additional 7 percent resorted to a combination of privies and portable toilets to meet this need. Two thirds of the units lacked any kind of heating system, although they were located in latitudes where heating was necessary. Only about a third of the units possessed interior hygienic facilities. Most of the facilities were inadequately ventilated and did not meet fire escape standards, having only one exit. Bedrooms usually lacked the capacity for the number of individuals housed in each unit, and laundry facilities were generally unavailable. In a large number of units kitchens doubled as sleeping quarters. Of the kitchens surveyed, half had no sink, a quarter had no refrigerator, and 60 percent had improperly vented stoves. Central bathroom facilities often lacked privacy partitions between toilets and fre-

since the end of the 1990 growing season, Colorado alone has witnessed the closing of almost 40 percent of its grower-provided housing units.[4] A Colorado vegetable grower told the National Advisory Council on Migrant Health, "Since a year ago it was my policy to burn all the houses down because there was no way that I could comply... This kind of pressure drives me against the wall and I wonder whether it is really worth ... caring for the human element."[7]

When migrant farmworkers cannot find lodging in labor camps they must seek it privately. In the rural areas where they work there is a shortage of available private housing, and private housing is not subject to federal regulation. The private housing that is made available to migrant workers tends to be substandard and relatively expensive. One worker noted, "Right now we are looking for apartments, and barely make [enough] to pay the rent. We pay $375 per month and they also want a deposit of $250 per apartment, $100 for gas, $50 for electricity. So you need $750 to get a house. It takes three weeks to make that much to pay the bills."[8] Frequently, the workers find themselves in worse dwellings than the camps which were closed, or with no dwelling at all. Yet the seasonal influx of population in these areas puts even this squalid housing at a premium. The only alternative to expensive, poor-quality shelters is living in a car or in the open.[4]

The migrant farmworker population is impoverished and comprised primarily of minority populations.[2] The U.S. Department of Labor reported in 1991 that seasonal agricultural workers received a median hourly wage of $4.85. However, these workers only worked about 34 weeks per year; fewer than half were covered by unemployment insurance, and fewer than one fourth had health insurance.[9] A family of eight working together all day may earn as little as fifty dollars or less.[10] Migrant farmworkers frequently meet resistance to their presence in private neighborhoods in the form of hostility or price gouging. In one case this year, seventeen individuals shared one run-down two-bedroom house, on which they were marginally able to afford the rent. At their current economic level, many migrant farm laborers will not be able to afford to continue working the crops in the absence of free or subsidized labor camps that have traditionally been provided by the grower.[4]

The phenomenon of migratory workers engaged in temporary work is no longer limited to rural areas. A new population of migratory temporary day laborers is being recognized in urban areas. In these cases, there are no traditions to support their presence and many communities are rejecting them whether they are seeking work or seeking shelter. In Orange county, California, it is found that frequently these individuals have no conventional shelter, but live in makeshift camps of cardboard, wood, and plastic hidden in canyons near towns. The county health department is routinely called in to close and bulldoze the camps for sanitation violations. No alternative shelter is provided, and some citizens groups have gone so far as to attempt to limit funding for charitable organizations that offer aid to these workers. At the same time,it is acknowledged that there is a need for their labor.[11]

The deplorable state of housing for migrant workers is an accelerating crisis that will have a profound impact on both employers and workers with deep implications for the agricultural economy. Poor housing is rapidly becoming non-existent housing. Without decent, affordable housing, fewer

workers will be able to make the seasonal work migrations, and those who do will face housing conditions worse than those of the previous decade for themselves and their families. Without the necessary seasonal labor provided by migrant farmworkers, growers will not be able to maintain their current rates of production, and will be less able to afford to provide and maintain adequate housing for the migrant farmworker population than they have been previously.[4] The four agencies listed in the 1992 Recommendations of the National Advisory Council on Migrant Health are in a position to significantly impact the migrant worker housing situation. If they coordinate their efforts and resources we may draw nearer to the time when safe and adequate housing will be available for our migrant workforce. Meanwhile, the migrant farmworker housing situation is caught in a downward spiral.

References

1. Simons, J. W. *Housing for Migrant Agricultural Workers*. Washington, DC: U.S. Department of Agriculture, 1970.
2. *Executive Summary: A Study of Housing for Migratory Agricultural Workers.* Rosslyn, VA: InterAmerica Research Associates, 1978.
3. Dever, G. E. Alan. *Migrant Health Status: Profile of a Population With Complex Health Problems*. Austin, TX: National Migrant Resource Program, Inc., 1991.
4. Gottlieb, Alan and Singleton, Louise R. "Migrant Housing Nightmare: State May Reap Bitter Fruit of Shortage If Workers Leave." *Denver (CO) Post*, August 4, 1991, pp. 1A++.
5. Tijerina, Jesus. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
6. *Proposal for Migrant Shelter*. Washington, DC: Housing Assistance Council, 19??.
7. Sakata, Bob. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
8. Garza, Pablo. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
9. U.S. Department of Labor, Office of Program Economics. *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers*. Washington, DC: U.S. Department of Labor, July 1991.
10. Alemdar, Zeynap. "Migrants' Housing Needs Critical, Virginia Official Says." *Washington (DC) Post*, August 1, 1986, p. A6.
11. McDonnell, Patrick. "Migrant Labor: City Issue Now." *Los Angeles (CA) Times*, November 17, 1990, pp. A1++.

Outreach

The need of migrant farmworkers for medical attention is well documented, and federally-subsidized migrant health clinics exist, but statistics show that less than fifteen percent of the target care population is able to access their services.[1] This is believed to be due to the fact that the clinics are located, due to financial constraints, in cluster areas where large numbers of migrant farmworkers will congregate for peak agricultural work seasons. Unfortunately, this by no means insures geographical proximity to a clinic for the majority of farmworkers.[2] Even when affordable health care facilities are available, migrant farmworkers experience greater difficulties accessing them than the mainstream population.

The population of migrant farmworkers as a group are poor, uneducated, frequently isolated, and chronically under-employed. Statistically they suffer from an array of health problems for which treatments are available, but to which they lack access.[2] A number of farmworkers testified before the National Advisory Council on Migrant Health that they were simply not aware that services were available. One said, "We follow the harvest from California to Colorado. I am not aware of aid or help. We don't know how to get it."[3]

In North Carolina, 67 percent of migrant farmworker families interviewed were able to subsist on their income but were not able to meet emergencies. Twenty-five percent were not able to subsist on their income or meet emergencies. Twenty-two percent were living in unstable relationships, six percent were living in abusive relationships, and ten percent showed evidence of child abuse or neglect. Thirteen percent of the children in this group showed evidence of stunted growth, which is thought to be an indication of poor nutrition, possible recurrent infections, and intestinal parasites. Twenty-four percent of the children suffered from anemia, and another 24 percent from diarrhea.[4]

A recent survey found that multiple and complex health problems existed among over 40 percent of all farmworkers who visited migrant health clinics.[5] As a group, migrant farmworkers experience a life span that is approximately 30 percent shorter than the national average, and an infant mortality rate that 25 percent higher than the national average.[6,7] The need of migrant farmworkers for health and social services is obvious, but a number of facts account for their difficulty in obtaining necessary health care.

The migrant farmworker population is comprised of a number of races and ethnicities, with the majority being Hispanic. Many individuals do not speak English as their primary language, and thus experience difficulty when they attempt to acquire medical attention or apply for social services.[8,9] Migrant farmworkers frequently lack transportation and cannot get from the job site to a clinic. Their physical and linguistic isolation may leave them unaware that services they need are even available.[2] Conventional business hours are also prohibitive to migrant farmworkers who need health care. Many cannot afford to

lose a day's wages in order to come to a clinic or office during traditional business hours, and so forego care.[10] Services are often divided between agencies or institutions, thus compounding the difficulties that migrant farm laborers experience with time, transportation, and translation when they seek care.[2]

In response to the difficulty that migrant farmworkers experience trying to access the system, outreach programs have been developed which attempt to take services to the migrant farmworkers. In order to implement outreach programs it has been found necessary to assess the composition of the local migrant farmworker population in order to address their specific needs. The federal Migrant Health Program defines outreach as making services known to the population and insuring that they can access all the services which are available. Outreach programs, according to the Migrant Health Program, should improve utilization of health services, improve effectiveness of health services, provide comprehensive health services, be accessible, be acceptable, and be appropriate to the population being served.[2] These guidelines recognize the demographic and cultural diversity that is encountered within the migrant farmworker population and the flexibility that is required to connect the workers with the services.

The demographic nature of the migrant farmworker population varies with location. The migration routes followed by migrant farmworkers are referred to as migratory streams. The home state is usually in the south and is referred to as downstream, while the work states are upstream. The three predominant streams are the east coast, midwest, and west coast streams.[1] A study in Oregon, a state in the western stream, found that the migrant population there was overwhelmingly Hispanic,[10] while in North Carolina the population was found to have a majority composition of Hispanics, but also to contain Blacks, Haitian and other Caribbean immigrants, Whites, and Native Americans.[11] While the Oregon program could reach its target group by having staff who were bilingual in English and Spanish, the North Carolina program needed trilingual speakers of Creole as well as Spanish and English in order to communicate with their target group. In order to be effective, outreach programs must be appropriate to their unique circumstances.

Three significant outreach programs developed in three different states are using varying means to successfully reach migrant populations that were previously isolated from necessary health and social services. Although there are numerous other outreach programs in place at both the local and state levels, the designs of these three have been thoroughly documented and will serve for discussion purposes. In North Carolina, the Department of Maternal and Child Health of the School of Public Health at the University of North Carolina at Chapel Hill has initiated an outreach plan in conjunction with the Tri-County Community Health Center (TCCHC), a federally-funded migrant health clinic. This program utilizes the services of lay health advisors recruited from the migrant farm labor camps to disseminate health information and identify individuals in need of health services.[11] The Farm Labor Camp Outreach Project implemented through Salud Medical Center in Oregon uses a van to take medical services and educational materials to migrant labor camps.[10] The Midwest Migrant Health Information Office in Michigan administers a state and privately-funded program which trains individuals from the

migrant labor camps as camp health aides.[12]

The Maternal and Child Health Migrant Project, administered in North Carolina through TCCHC, focused on assessment of the health and nutritional status of pregnant women and children, and on means of improving their condition. It also set out to develop model protocols and a data collection and reporting system to assist migrant health center staffs in the management of high-risk mothers and children, to design and implement systems linking available resources for migrant farmworkers, to demonstrate the effectiveness of lay health advisors in disseminating accurate, culturally appropriate health information to the migrant farmworker population, and to develop educational modules based on the realities of migrant life to be used by migrant health care delivery services.[11]

The clinic staff found the major barriers to accessing health care among migrant workers to be lack of transportation, inability to speak English, and a lack of access to child care. The clinic responded initially by hiring staff who were bilingual in English and Spanish, and later also in English and Creole. The clinic utilized a bus to transport migrant farmworkers to appointments, but found this to be insufficient and implemented the services of volunteers to aid in transportation also. The project coordinated the services of the local county health department, social service agencies, local hospitals, Migrant Head Start center, and WIC, thus helping to connect the migrant farmworker with the necessary social service with the least amount of inconvenience. The center's maternal health nurse arranged for bilingual clinic staff to assist with deliveries in local hospitals in exchange for systematic referral of TCCHC patients for postpartum care. This improved the working relationship between the hospitals and the center, and increased the center's notification of patient deliveries. Recognizing a flow in the migrant stream between North Carolina and Florida, the center also made contacts in Florida to establish a tracking system for TCCHC patients. In order to overcome the language and cultural barriers to seeking health care within the migrant farmworker population, the concept of lay health advisors was developed.[11]

The goals of the lay health advisor training program were to instill an "everymother" knowledge of general maternal and child health issues and community resources in the participants, as well as the display of an affirming, non-judgmental attitude in their role of helper; for helpers to be able to share effectively with their peers; and for helpers to be able to follow a problem-solving methodology.[13] To this end the program recruited women from the migrant labor camps who had a reputation of leadership ability, peer respect, attitudes of empathy or caring, interest in learning about their health and the health of their children, and an understanding of the importance of sharing that knowledge with family and friends.[14] They were given fourteen hours of training on their role as advisors, child growth and development, infant and child nutrition, diarrhea and dehydration, safety and environment, family violence and community resources, and dental health. The advisors were tested on these subjects before and after training, showing a significant increase in their post-training knowledge. One lay health advisor recognized the symptoms of meningitis in her own child immediately after training on the subject.[15] Lay health advisors reporting having several contacts a week in the camps with people who needed advice about seek-

ing treatment. They referred pregnant women to the center, identified and requested assistance for cases of spouse abuse, and in one case identified the need for follow-up treatment on a post-surgical case.[11] Psychological tests showed lay health advisors scoring higher than other migrant farmworker women in terms of self efficacy, development of a positive social identity, measures of collective empowerment, and the ability to conceptualize appropriate action in specific situations. The lay health advisors themselves attributed these results to their experiences with the program.[16] Statistical data does not show a significant change in the incidence of specific disease rates in the camps where lay health advisors operate,[17] but anecdotal evidence shows that their presence is having a positive impact on the migrant labor camps they operate in.[11] Also, the influence of lay health advisors does not end when they move on to the next migrant labor camp. In this way the influence of the TCCHC program is extended beyond its sphere of immediate influence through the eastern migratory stream, and migrant farmworkers are enabled to take measures to help themselves.

The Farm Labor Camp Outreach Project at the Salud Clinic took the clinic to the workers. A medical van was outfitted with necessary supplies to conduct on-site medical screening tests and educational programs. Bilingual staff were hired to spare workers the embarrassment of discussing their health problems through a translator. The visits to the migrant labor camps were coordinated, with the help of the growers, to coincide with peak crop seasons in order to reach the greatest number of workers possible, and visits were made after work hours in order not to conflict with work schedules. The clinic itself remained open until 8:00 p.m. twice a week to accommodate migrant farmworkers' work schedules. Workers were screened for hypertension and anemia, and educational sessions were conducted on sexually transmitted diseases, AIDS, pesticides, nutrition, hygiene, parasites, anemia, diabetes, hypertension, immigration, substance abuse, and tuberculosis. The van also carried referral forms for medical treatment and applications for WIC. If patients were found to need treatment, appointments and transportation were scheduled for them. Preventive information on disease was provided and eagerly received.[10]

The Midwest Migrant Health Information Office (MMHIO) camp health aide program was developed by the federal government in conjunction with the Catholic Consortium for Migrant Health Funding to establish a model program which individual states would then be encouraged to take over. In this case, the State of Michigan has assumed full responsibility for the program within its borders. Camp health aides are recruited much the same way as the lay health advisors in the North Carolina study, with similar goals and outcomes. The presence of the camp health aides has helped to overcome the language barrier, prejudice, and long work hours that prevent many migrant farmworkers from gaining the medical information and attention they need.[12] Camp health aides and lay health advisors are members of the migrant population themselves, and remain identified with their culture in the eyes of their peers. Their example reinforces the idea that preventive health care has value, while the information they provide encourages their contacts to assume control of their own health care rather than depending on outside intervention.[13,14] MMHIO is now working to extend its outreach work to the downstream home bases of migrant farmworkers.[17]

Outreach programs range from taking services to the target population to training the target population to serve itself. In all cases they serve to bring people and services together which otherwise would not connect. The migrant farmworker population is particularly vulnerable, needing aid yet frequently lacking the means of access or even of communication with the sources of aid that exist to help them. Outreach programs are effective means of consolidating the fragmented social services that frequently frustrate the attempts of migrant farmworkers to seek aid. Properly administered, outreach programs can serve not only to gain access to resources for migrant farmworkers, but also can guide them toward self-sufficiency.

References

1. Duggar, Benjamin. *Access of Migrant and Seasonal Farmworkers to Medicaid Covered Health Care Services*. Unpublished paper, May 29, 1990.
2. Migrant Health Program. *Outreach Health Services to Migrants: The Reality, The Dream*. Rockville, MD: U.S. Department of Health and Human Services, 1990.
3. Guerra, Manuel. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
4. Larson, Kim. *Maternal and Child Health Migrant Project: A Program Evaluation*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1986.
5. Dever, G. E. Alan. *Migrant Health Status: Profile of a Population With Complex Health Problems*. Austin, TX: National Migrant Resource Program, Inc., 1991.
6. *Medicaid and Migrant Farmworker Families: Analysis of Barriers and Recommendations for Change*. Washington, DC: National Association of Community Health Centers, 1991.
7. Interstate Migrant Education Project. *Interstate Migrant Task Force: Migrant Health*. Denver, CO: Education Commission of the States, 1979.
8. Trotter, Robert T. *Orientation to Multicultural Health Care in Migrant Health Programs*. Austin, TX: National Migrant Resource Program, 1988.
9. U.S. Department of Labor, Office of Program Economics. *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers*. Washington, DC: U.S. Department of Labor, July 1991.
10. Bishop, Margaret and Harrison, Matthew. *Farm Labor Camp Outreach Project: A Step Toward Meeting the Healthcare Needs of the Hispanic Migrant Farmworker in Oregon*. Unpublished report, 1987.
11. Department of Maternal and Child Health. *Improving the Health of Migrant Mothers and Children: Final Report*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1990.
12. Gilfallan, Sandy. "Harvest of Hope." *Catholic Health World*, April 15, 1991, pp. 5-8.
13. Harlan, Christina. *Migrant Lay Health Advisors: A Strategy for Health Promotion*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1986.
14. Larson, Kim and Watkins, Elizabeth. *Migrant and Lay Health Programs: Their Role and Impact*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1990.
15. Harlan, Christina. *Migrant Lay Health Advisors: A Process for Change*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1986.
16. Stewart, Genevieve. *Personal and Collective Empowerment Among Migrant*

67-548 O - 93 - 10

Farmworker Camp Health Aides. Detroit, MI: Midwest Migrant Health Information Office, 19??.

17. Watkins, Elizabeth and Larson, Kim. *Migrant Lay Health Advisors: A Strategy for Health Promotion, A Final Report.* Chapel Hill, NC: University of North Carolina at Chapel Hill, 1991.

Mental Health

Migrant farmworkers face enormous difficulty obtaining the basic necessities of life: food, shelter, and medical attention. They are poor, under-educated, subject to economic uncertainty and unsanitary living conditions. They frequently face prejudice and hostility in the communities where they stop to work.[1] Father Thomas More of the Colorado Migrant Rural Coalition testified that, "The migrant worker who comes [to Colorado] from Texas is... not allow to speak up in matters which would require a change in legislation... The people whose lives are affected... are not involved in the decision making."[2] The mobile nature of the farmworker family's occupation often precludes access to mainstream health care services. Their need for mental health services goes almost unaddressed, even though the harsh conditions under which they live has been correlated with an increased incidence of mental health problems.[1,3]

In his Children of Crisis series Robert Coles, a physician and child psychiatrist, characterizes the psychological pressures of growing up in the cycle of migrant farmwork: "How literally extraordinary, and in fact how extraordinarily cruel, their lives are: the constant mobility, the leave-takings and the fearful arrivals, the demanding work they often manage to do, the extreme hardship that goes with a meager (at best) income, the need always to gird oneself for the next slur, the next sharp rebuke, the next reminder that one is different and distrincly unwanted, except, naturally, for the work that has to be done in the fields." Dr. Coles continues,

> *There is ... the misery; and it cannot be denied its importance, because not only bodies but minds suffer out of hunger and untreated illness... Migrant parents and even migrant children do indeed become what some of their harshest and least forgiving critics call them: listless, apathetic, hard to understand, disorderly, subject to outbursts of self-injury and destructive violence toward others. It is no small thing ... when children grow up adrift the land, when the learn as a birthright the disorder and early sorrow that goes with peonage, with an unsettled, vagabond life.*[4]

Studies relate some of the stresses entailed by life in the migrant streams. A former migrant farmworker testified before the Department of Labor in 1974 to the conditions she had experienced while living and working in the migrant stream.[3] Due to low income, her family had no choice but to live in the labor camps provided by the growers. These camps were isolated, miles from towns and grocery stores. There were no recreational facilities or medical facilities. The houses had no heat or ventilation. Frequently there was no stove to cook on, and no place to store food where it was safe from vermin. The houses were overcrowded, and there was no privacy for such personal functions as bathing or using the toilet. Although her mother was a diabetic, the family had neither access to medical treatment for her nor means to purchase or prepare the kind of foods her condition required. Other studies recount the lack of

privacy for adults for sexual relations[1] and long grueling hours of manual labor for low wages entailed by farm work, as well as the inherent health risks of farm labor (i.e., pesticide exposure and accidents).[1,3]

Economically the migrant farmworker is at the mercy of the weather. Rain or unseasonable weather can disrupt their work schedule and create economic havoc for them. In addition, migrant farmworkers tend overwhelmingly to be members of minority groups, with the majority being Hispanic. Although their labor is vital to the farming communities through which they work, migrant farmworkers frequently experience prejudice and hostility to their presence. Stress factors such as these have been strongly correlated with mental breakdown, self-destructive behaviors, and the need for mental health treatment.[1]

The stresses of the migrant farmwork situation are expressed both tangibly, through chronic health problems, and intangibly in emotional turmoil. Anxiety often takes the form of somatic symptoms such as headaches and neck pain.[1] Drug and alcohol abuse occur in high numbers.[5] Stress creates family situations that are often unstable, and sometimes abusive. Conflict erupts when children identify with the mainstream lifestyle and their parents enforce traditional values, fearing that their families will disintegrate.[1] Individuals with special problems are subject to further stress, as exemplified by the homosexual migrant farmworker who told an interviewer he had no one to talk to since he was sure his family would disown him if he revealed his secret to them.[6] The traditional solution to problems is for individuals to adapt to problems rather than attempt to change the circumstances that cause the problems. And so the problems are perpetuated.[1]

Delivering mental health services to the migrant farmworker community is not a simple matter. Migrant farmworkers are often unaware that services exist, so they do not seek them out.[7] The fact that farmworkers move so frequently makes it difficult for them to acquire care for chronic problems, and the physical barriers to delivery services are formidable. Most farmworkers are isolated geographically from clinics and care facilities; they frequently lack transportation and/or child care, and traditional clinic hours conflict with their work schedules and thus are prohibitive. But language and cultural barriers are two of the greatest deterrents to bringing necessary mental health services to migrant farmworkers.[3,7]

In addition, there is a critical lack of funding for farmworker-specific mengal health efforts. One author states, "Mental health care for migrants has never been given consideration or time by the migrant [health] clinics or any other medical system in the United States."[7] Public mental health services in this country are funded primarily at the state level, with funds "flowing down" to provide services in local areas. While this method is adequate to serve stable populations, it does not meet the needs of a farmworker community which must be constantly moving by the very nature of its work. Funds are needed at the national level to develop outreach capabilities which will allow mental health services to be taken to the farmworker rather than vice versa.[7] A work group funded by the Office of Substance Abuse Prevention recently recommended increasing appropriations for farmworker-specific mental health services at all levels, in addition to developing state and local strategies such as block grants, to address farmworker substance abuse prevention. The group also stressed the use of lay health workers and

the integration of mental health and substance abuse services with migrant health clinics as mechanisms to improve access.[8]

Mainstream Anglo culture does not look favorably on individuals who are poor, uneducated, transient, and ethnically distinct.[7] Migrant farmworkers are all of these things. The mainstream stereotype of the typical Hispanic is of a shiftless, dumb, illiterate, violent, drunk whose poverty is somehow indicative or moral turpitude.[1] Because they move frequently, disrupting their education, migrant farmworker children are often labelled "slow learners."[7] These negative appraisals are frequently incorporated into the self-image of the individual, resulting in low self esteem which is associated with a sense of powerlessness and depression.[1] It should not be surprising, then, that a mainstream clinic staffed with Anglo practitioners would be viewed as an alien and hostile environment, and not conducive to treatment that requires sympathy, trust, and understanding between practitioner and client.[3] For mental health intervention to be effective it cannot be only physically accessible. it must be culturally acceptable as well.

The mental health of an individual is composed of complexities of belief, thought, and emotion. Such concepts are often expressed in language by idioms, terms that are understood culturally but which literally may make no sense. Thus, when an Anglo practitioner listens to a young Hispanic woman telling him that she hears voices telling her to enter a convent, he may make a pathological diagnosis of auditory hallucinations with religious content when actually the woman is employing a figure of speech as harmless as saying she has a calling to the religious life.[1] If a practitioner lacks either the cultural or linguistic capability to detect such nuances, how is he or she to make an accurate diagnosis?[3] An example of the extremes such insensitivity can lead to is the 1966 finding that 30,000 Spanish-speaking Hispanic children in California had been placed in classes for the mentally retarded after being tested for mental capacity in English.[5]

Understanding the patient's language is necessary in order to deliver mental health services. But mere knowledge of language is insufficient for comprehending the delicate shades of meaning that are expressed when people speak about their emotions. These shades of meaning can easily be lost or misconstrued through an interpreter or if the client must translate his or her thoughts into English before speaking. To truly understand what a patient is saying, the practitioner must understand the client's cultural background as well as language. For this reason, the migrant farmworker community would best be served by practitioners who are bicultural as well as bilingual.[1,3] As one rehabilitation coordinator commented, "[Mental health support groups] is a service that's provided to the Anglo community through mental health or private psychiatrists, but it is not provided for the farmworker. It's not even provided for the Hispanic population overall."[9]

Hispanic culture views illness differently from the way mainstream Anglo culture does. This is an important consideration because Hispanic members of the migrant farmworker population run the gamut from being fully immersed in mainstream American culture to being entirely traditional with no English-speaking capability. While the mainstream culture regards illness as an impersonal and blameless event, the result of germs or fate, the traditional Hispanic culture regards illness and health as being connected to harmony between

the natural and the supernatural. Thus, an individual's illness reflects on his or her relationship with the community and with God, and a system of folk medicine has developed to restore harmony to the body and the spirit when these relationships somehow become unbalanced.[1,3] In order to be able to treat individuals who believe in this value system, it is necessary to understand what they believe about their own condition. It is also necessary to determine if the patient is reporting all problems or dividing treatment between conventional and folk practitioners. If the practitioner is not well versed in Hispanic culture and is ethnocentric and judgmental, the patient is likely to be alienated and uncommunicative. But even if the practitioner is sympathetic, it is not going to help to communicate on delicate and complex issues if he or she literally does not speak the same language as the client.[3]

In order to provide mental health services to Hispanic migrant farmworkers there must be compatibility between patients and practitioners in matters of language and culture. Staffing migrant health care facilities with bilingual and bicultural practitioners would be a pragmatic step in that direction. It is important for practitioners to be aware of what is considered polite and appropriate as their relationships with their clients progress. These concepts are expressed in the Spanish language, which a formal and an informal form of address. The latter is used between friends and intimates, but is insulting or patronizing if used with new acquaintances. If a practitioner initiates treatment by accidentally insulting the client it is doubtful that there is going to be a favorable prognosis.[1] Likewise, it is important for the practitioner to understanding the stage of acculturation of the client. A client from a traditional background who is determined to acculturate is subject to numerous stresses associated with rejecting the culture he was raised in while simultaneously being cut off from the support system that culture provided. An individual who retains traditional beliefs may experience culture-specific illness such as "mal ojo" or evil eye which will not disappear with ridicule, but must be addressed respectfully. To function in this scenario, a practitioner must be culturally enlightened.[1]

Bilingual, bicultural programs have been implemented successfully through medical clinics. The Camp Health Aide program in Michigan, which was implemented primarily as a medical outreach program to migrant labor camps, found that migrant farmworker volunteer camp health aides experienced an increased sense of self esteem and empowerment.[10] La Clínica in Washington State established "Las Comadres," a gathering place for migrant farmworker women who were depressed and cut off by migration from the feminine support network they had at home. The resulting access to peer support yielded favorable results.[1] It has also been suggested that establishing mental health resources for migrant farmworkers in proximity to primary care clinics could help alleviate the stigma associated with seeking mental health services as well as reducing transportation barriers.[1]

The migrant farmworker population is subject to pressures which greatly increase their risk of suffering from some form of mental illness. Their mobility complicates the difficulties involved in providing mental health care for them with the problem of how to provide continuity of care to a transient population. The linguistic and cultural background make it necessary for programs which deliver services to them to also be bilingual and bicultural or risk

being ineffective. Relevant mental health services are simply not available in sufficient quantity to even begin to meet the need.

References

1. Utting, Gemma. "Migrant Mental Health: Independent Study." Unpublished paper, 1988.
2. More, Thomas. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
3. Laughlin, James A. *Foreigners in Their Own Land: The Migrant and Mental Health*. Chicago, IL: Illinois Migrant Council, 1977.
4. Coles, Robert. *Migrants, Sharecroppers, Mountaineers*. Boston, MA: Little, Brown & Co., 1967.
5. Duran, Ruben. "Mental Health Needs of Migrant Workers." In *Chicano Plan for Mental Health*, pp. 11-17. Santa Monica, CA: COSSMHO, undated.
6. Shapiro, Bobbi. "Unanswered Questions: Homosexuality Among Migrant Farmworkers." *Migrant Health Newsline*, Clinical Supplement, May/June 1989.
7. Mestas, Leonard. "Perspective: Migrant Farm Workers and Mental Health." Unpublished paper, undated.
8. Work Groups, National Farmworker Substance Abuse Prevention Symposium. *Substance Abuse Prevention in the Migrant and Seasonal Farmworker Population: A Plan of Action for the Year 2000.* Austin, TX: National Migrant Resource Program, Inc., December 1990.
9. Lopez, Thomas. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
10. Stewart, Genevieve. *Personal and Collective Empowerment Among Migrant Farmworker Camp Health Aides*. Detroit, MI: Midwest Migrant Health Information Office, 19??.

Appropriations

During the late 1930s and early 1940s, the Farm Security Administration (later part of the U.S. Department of Agriculture) constructed Farm Security Camps at major points of farm labor demand. The camps provided housing, basic health care services, and referrals to cooperating physicians or hospitals. In 1946 the Department of Agriculture's farm labor program provided health care to more than 100,000 workers. This program was funded almost wholly by federal appropriations, and became a casualty in 1947 when Congress terminated all wartime emergency programs. One observer comments, "What Congress failed to note at the time was that the needs of seasonal farmworkers amounted to a continuing emergency that started before the war and lasted afterward.[1]

Change began slowly, primarily at the state level, in the 1950s, but conditions for farmworkers went almost unregulated by federal law until the passage of the Migrant Health Act. The Act, signed into law by President John F. Kennedy on September 25, 1962, established the authorization for delivery of primary and supplemental health services to migrant and seasonal farmworkers. Funded under Section 329 of the Public Health Services Act and administered by the U.S. Department of Health and Human Services, the Migrant Health Program has been a strategic partner in the delivery of health care services for thirty years. The Migrant Health Act was devised to make health care services accessible to migrant farmworkers and their families by helping states and local communities adapt their existing health care system to meet the unique needs of this population. The initial appropriation of $3 million was intended to pay for only part of the project costs; it was hoped that contributed funds from public and voluntary sources would be used to the fullest extent possible.

In the first year, 52 organizations were approved for Migrant Health Program support. According to the Senate Subcommittee on Migratory Labor in 1967, "The work is well begun... Still the need has not ended. Service coverage remains weak in many of the areas where projects are now receiving grant assistance. Three-fifths of the counties identified as migrant home-base or work areas are still untouched."[2] Grants under the Act in its first few years were generally small, and had to be supplemented with other resources. Beginning in 1965 and in subsequent years, "each time that the term of the legislation neared its expiration date, Congress extended the law and increased the annual authorization of funds. However, actual annual appropriations nearly always lagged behind the authorized level. Thus in 1983 the authorized ceiling was $47 million but the actual appropriation was $38 million."[1]

Today there are over one hundred migrant health projects whose 539 clinic sites provide services to over 500,000 migrant and seasonal farmworkers and their families in 33 states and Puerto Rico.[3] In spite of this progress, the heavily-utilized services of existing projects are still able to serve less than fifteen percent of the estimated mi-

grant and seasonal farmworker population in need. The misfortunes of the migrant worker are far-ranging, and are reflected in their overall poor health status. Migrant and seasonal farmworkers require a health care delivery system which offers effective, migrant-specific, culturally tailored health care.

Studies have shown that the migrant population is at greater risk and suffers more problems than the general population of the U.S. Since 1962, migrant health centers have struggled to serve the farmworkers who make up the backbone of this country's agricultural work force. However, the ongoing battle to provide services to this population is being lost.[4] A 1988 Report of the Labor and Human Resources Committee noted that:

> *The Committee is aware that [case management] services–which were once an integral part of a typical health center's service package–are today offered by fewer than one-third of all C/MHCs. In most cases, these services were either reduced or eliminated due to funding constraints... [yet] these very services have been cited by numerous independent experts... as being particularly important in serving high-risk, hard-to-reach populations, such as ... migrant farmworkers and new immigrants...*
>
> *... it is the Committee's desire that, as additional funds are made available for these programs through future appropriations, priority should be given to the development or restoration of the patient case management services at existing health centers.*[5]

As noted by the National Association of Community Health Center, "Severe limitations on the federal budget in recent years have seriously affected [community and migrant health] center growth. Federal policymakers have attempted to aid centers in a number of ways... yet the demand for services far outpaces these small gains... Yet the mere existence of health centers has been an aid to local economies. By stressing preventive care in the communities they serve, indigent reliance on hospital emergency rooms has been markedly reduced. Immunization and prenatal care rates are considerable higher among eligible C/MHC users than comparable community residents who do not use health centers."[6]

Rapidly escalating medical costs have made the funds available for farmworker health services less and less adequate. For example, "The 1984 migrant health appropriation was three times the amount in 1970. However, per capita health expenditures for the nation during the same period increased 3.5 times."[7] Figure 1 depicts the appropriation history for Migrant Health; if the program had kept pace with the consumer price index for medical costs, the current appropriation would be $87.9 million (Figure 2). The $90 million recommended appropriation includes this figure plus additional funding for comprehensive perinatal services for farmworkers.

A 1985 report published by the National Migrant Worker Council aptly stated, "To expect a minimally funded Program to meet all the health needs of a deprived population in a time of high and rising costs is to expect the impossible ... At every level of operation, the Program generally lacks the funds and the staff required for full effectiveness in building and maintaining the kinds of coalitions with other public and voluntary groups that would bring the effectiveness and scope of service of grant-assisted projects to their maximum."[7] The extent of farmworkers' unmet need for

Figure 1
Migrant Health Program Total Funding and Medical/Dental Users: 1987-1991

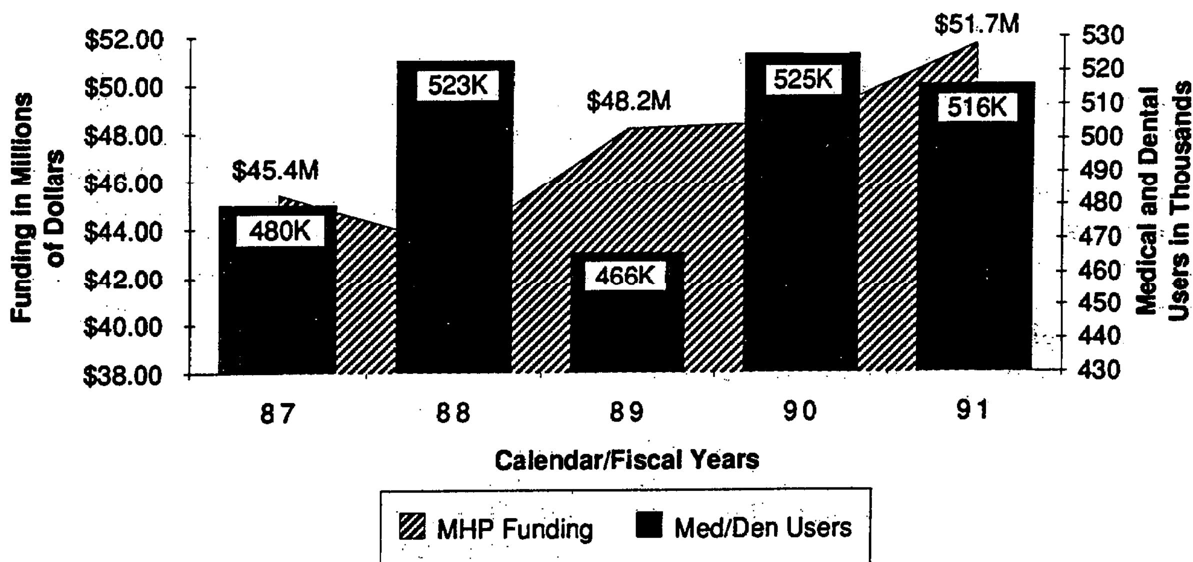
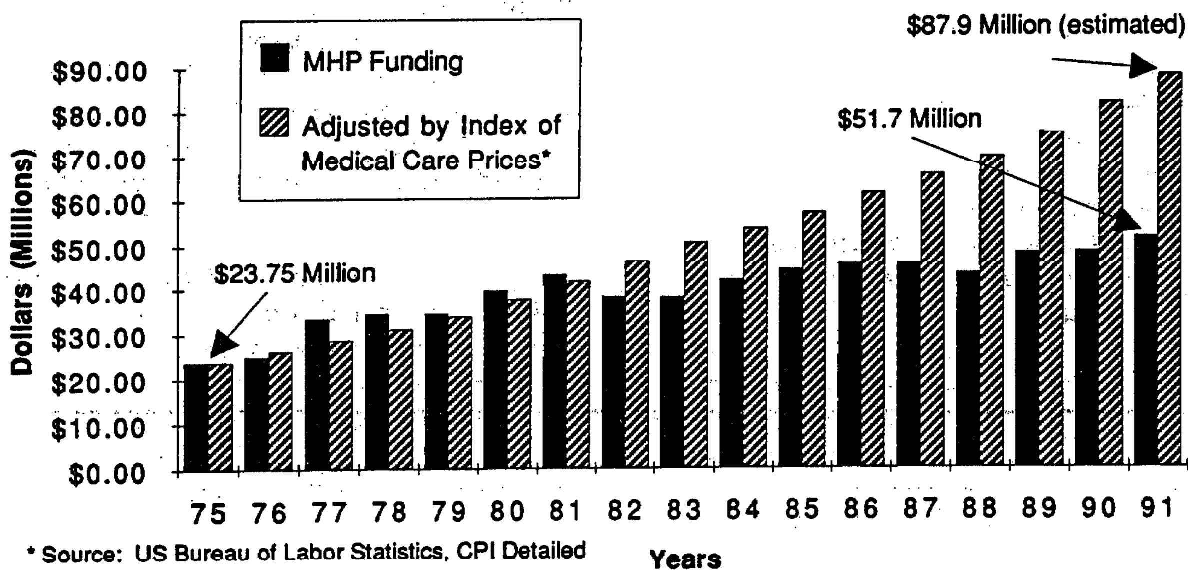


Figure 2
Growth in Medical Care Costs vs. Migrant Fund 1975-1991 Using 1975 as Base



* Source: US Bureau of Labor Statistics, CPI Detailed Report, January 1991, and unpublished data

basic health care services is not only a national disgrace, but also a national challenge. In order to improve the overall health status of farmworkers in this country, a major appropriation increase for the Migrant Health Program is necessary.

In the late 1960s, Congress expressed the desire for the eventual expansion of programs for the general population to cover services to farmworkers. Congress noted, "However, for the foreseeable future ..., this program, because of its importance to the health of the American people, should be considered as a permanent and separately identifiable program..."[8] By 1985, a new report indicated that, "Nationally, ... the Migrant Health Program serves as a nagging reminder of the continuing health problems of migrants... The separately identifiable health service program first envisioned by Congress ... seems as much needed today as it was in the beginning."[7]

The conclusion reported by the Public Health Service in 1954 remains pertinent today:

> *Migrants present the gamut of needs for health, education and welfare services—needs which are intensified by their economic and educational status and by the fact of their migrancy. Challenges to official and voluntary agencies lie in finding ways to coordinate required services locally and to make these services continuous as migrants move from place to place... At stake are the health and welfare of ... people who make a vital contribution to our national economy as well as to the health and welfare of the communities through which they move.*[9]

References

1. Johnston, Helen J. "An Overview of The Growth and Development of The U.S. Migrant Health Program." *Migration Today*, vol. XII no. 4/5, pp. 8-14.
2. *Migrant Health Program: Current Operations and Additional Needs*. Washington, DC: U.S. Senate, Subcommittee on Migratory Labor, 90th Congress, 1st Session, December 1967.
3. Egan, Jack. Acting Director, Bureau of Health Care Delivery and Assistance, Migrant Health Program. Personal communication, January 13, 1992.
4. Dever, G. E. Alan. *Migrant Health Status: Profile of a Population with Complex Health Problems*. Austin, TX: National Migrant Resource Program, Inc., 1991.
5. U.S. Congress. *Family Health Services Act of 1988, Report*. Washington, DC: U.S. Senate, Committee on Labor and Human Resources, 100th Congress, 2nd Session, May 9, 1988.
6. *Health Care, Access and Equality: The Story of Community and Migrant Health Centers and Their National Association*. Washington, DC: National Association of Community Health Centers, Inc., 1990.
7. Johnston, Helen L. *Health for the Nation's Harvesters: A History of the Migrant Health Program in its Economic and Social Setting*. Farmington Hills, MI: National Migrant Worker Council, Inc., 1985.
8. *Migrant Health Services*. Washington, DC: U.S. Senate, 91st Congress, 1st Session, December 18, 1969.
9. Leone, Lucile Petry and Johnston, Helen L. "Agricultural Migrants and Public Health." *Public Health Reports*, January 1954.

Medicaid

The exact composition of the migrant farmworker population is not known; however, its numbers are estimated to fall between three and five million.[1] Thirty-eight percent of this population consists of women and children under the age of fourteen.[2] The average annual migrant farmworker family income is substantially lower than the national poverty threshold, and migrant farmworkers experience more health problems than the general population. Migrant farmworkers precisely fit the profile of the population the Medicaid program was designed to protect. Yet, as a group, migrant farmworkers have more difficulty accessing the benefits of the Medicaid program than any other population in the nation.[1]

The Medicaid system was designed to form a "safety net" for the lowest-income members of society.[1] It was meant to insure that impoverished citizens, especially pregnant women and children, had access to adequate health care. The Medicaid program is federally mandated, but is administered by individual states. The federal government has provided broad guidelines for the program, but these guidelines are open to interpretation by individual states and the process of administering the Medicaid program is not uniform between states.[3]

Migrant farmworkers make their living by working the peak seasons of agriculture. This entails moving frequently to obtain hard labor at low wages, living in sub-standard housing conditions, and exposure to numerous health hazards.[4] Many migrant farm laboring families travel as a unit, with as many family members working as possible. Each state in the union utilizes the labor of migrant farmworkers. It is not uncommon for a migrant farm laborer to spend less than a month in one locality.[1] This fact alone accounts for one of the greatest obstacles migrant farmworkers face when they attempt to access the Medicaid system.

The law allows migrant farmworkers to apply for Medicaid in whichever state they are working.[1] However, states are allowed forty-five days to process an applicant's eligibility forms. By the time this process is complete, many migrant farmworkers have had to move on to the next job, which will frequently be in another state.[2] Once a worker's eligibility for the program is established, it must still be re-validated every one to six months, depending on the state and the eligibility category.[1]

Almost half of the nation's migrant farmworkers have less than a ninth-grade education. Many of them do not speak English as their primary language (although they were born in the United States), and most states provide application forms in English only.[2] Frequently, migrant farmworkers lack transportation to the appropriate office; this difficulty is compounded in states which require multiple visits to complete the application process. And coming to an office during traditional office hours, the hours maintained by most state agencies, means the loss of a day's wages or even the loss of employment to migrant laborers.[1] There are no provisions to streamline this process even for preg-

nant women and infants, a group for whom Medicaid benefits were recently expanded.[2]

The need of migrant farmworkers for health benefits is great. The infant mortality rate among migrant farmworkers is 25 percent higher than that of the general population.[2,5] The average life expectancy for a migrant farmworker is 49 years, compared to the national average of 73 years.[5] Migrant farmworkers are subject to more accidents, dental disease, mental health and substance abuse problems, and as a population suffer a higher incidence of malnutrition than any other sub-population in the country. They also experience high rates of diabetes, hypertension, tuberculosis, anemia, and parasitic infections,[6] while their low income levels make private health care prohibitive. Migrant farmworkers tend not to apply for benefits until they are already experiencing a need for health care services. The government has established migrant health care clinics, but there are so few of them in relation to the numbers of migrant farmworkers that they serve less than fifteen percent of their targeted population.[1] Also, migrant laborers who are employed may be ineligible for Medicaid benefits by virtue of their seasonally fluctuating employment.[2]

Migrant workers need and, in most cases, qualify for the benefits that Medicaid would afford, but their greatest obstacle to obtaining them is completing the application process. If a farmworker does manage to navigate the system and obtain Medicaid benefits, he or she must reapply for them when moving into another state. If the worker cannot be located when it is time to re-certify eligibility for benefits, the benefits lapse.[2]

The law does allow states to reciprocate on Medicaid benefit eligibility, but the administration of the system is not uniform among states. When one state honors another state's Medicaid eligibility for a recipient, the paperwork tangle involved in billing for the services may cost more than the value of the medical services rendered. If the patient must be contacted in order to complete paperwork and that patient is a migrant farm laborer, it may not be possible to locate him. These circumstances do not encourage states to make an effort to accommodate the need of migrant farmworkers to be enrolled in the Medicaid system.[1]

The current system for the distribution of health benefits is not generally accessible to migrant farmworkers, although they are among the most needy members of our population. Migrant farmworkers face frustrations when they try to access the system, and states face frustrations when they attempt to cooperate to serve the migrant population.[1] Meanwhile, farmworkers suffer from a host of preventable and treatable diseases which Medicaid would cover, but for which they are unable to obtain treatment.[2] A nationally administered program to provide health care to migrant farmworkers would bypass the problems the individually administered state programs are currently generating.

References

1. Duggar, Benjamin. *Access of Migrant and Seasonal Farmworkers to Medicaid Covered Health Care Services*. Unpublished paper, May 29, 1990.
2. *Medicaid and Migrant Farmworker Families: Analysis of Barriers and Recommendations for Change*. Washington, DC: National Association of Community Health Centers, 1991.
3. *Medicaid State Residency Requirements and Migrant Farmworkers and Their Families: Implications for Federally Qualified*

Health Centers. Washington, DC: National Association of Community Health Centers, 1990.

4. *Executive Summary: A Study of Housing for Migratory Agricultural Workers*. Rosslyn, VA: InterAmerica Research Associates, 1978.
5. Interstate Migrant Education Project. *Interstate Migrant Task Force: Migrant Health*. Denver, CO: Education Commission of the States, 1979.
6. Dever, G. E. Alan. *Migrant Health Status: Profile of a Population With Complex Health Problems*. Austin, TX: National Migrant Resource Program, Inc., 1991.
7. Trotter, Robert T. *Orientation to Multicultural Health Care in Migrant Health Programs*. Austin, TX: National Migrant Resource Program, 1988.
8. U.S. Department of Labor, Office of Program Economics. *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers*. Washington, DC: U.S. Department of Labor, July 1991.

Health Professions

It is no exaggeration to say that the health status of migrant farmworkers is in a state of crisis.[1] Health care facilities with bilingual, bicultural staffs have implemented successful inter-disciplinary programs to cover the wide range of health and health-related social service needs of migrant farmworkers.[2] However, with 539 federally-funded migrant health clinics nationwide, there are still too few of these facilities with too few qualified practitioners to staff them effectively to serve a target population estimated to number up to five million.[3,4]

That the approach to delivery migrant health care services should be inter-disciplinary and creative is demonstrated by the broad range of problems from which migrant farmworkers suffer. They need services for physical illness, mental health disorders, and dental care. There is also a demonstrated need for preventive services such as nutritional counseling, family planning information, and basic education about health issues, hygiene, and well child care.[3] Farmworkers are frequently unaware of programs that exist to benefit them, and need to be linked with the appropriate social service agencies that provide aid. Workers face many obstacles to gaining access to service facilities, chiefly lack of time, money, and transportation and linguistic and cultural disparity with clinic staff.[2]

Programs that have successfully overcome these problems have done so with unconventional methods, significant outreach components to their programs, and a team approach to solving problems.[2] Examples of these programs include the Salud Clinic in Washington State,[5] Tri-County Community Health Center in North Carolina,[6] and the Niagara County Migrant Health Clinic in New York State.[7] All of these clinics employ bilingual and bicultural staff. They engage in significant outreach programs aimed at the migrant farmworker community, and enable that community access them. All of these clinics see clients outside of traditional business hours. Without this consideration, many migrant farmworkers would not be able to keep an appointment. Transportation is provided from the labor camps to the clinics, and also to referral appointments. The clinics serve as social service clearinghouses, coordinating services with appropriate social service agencies and frequently helping clients to translate and fill out forms.[5,6,7]

Evening clinics, translation services, transportation of clients, and social service coordination are not part of the traditional medical milieu, but they are essential services for the migrant farmworker community.[7] Successful programs require dedicated, competent staff from a broad range of health professions, preferable with bilingual ability and bicultural backgrounds. These individuals must be willing to coordinate their efforts and go beyond the boundaries of traditional health care services in order to care for their clients. Health professionals serving the migrant farmworker population have greater demands placed upon them than practitioners in traditional medical settings.[2]

Unfortunately, the typical migrant health center is unable to pay wages that are competitive with standard health care facilities in order to attract and keep staff.[8] Migrant health clinics were dealt a blow in the recruitment of physicians by the downsizing of the National Health Service Corps (NHSC). In 1987, 50 percent of the physicians in migrant health centers were serving out NHSC terms of two, three, or four years. With the expiration of those terms NHSC physicians had no obligation to remain at the clinics.[3] (It should be noted that the revitalization of the NHSC scholarship program currently underway will have an enormous positive impact on recruitment of migrant health providers. The National Advisory Council on Migrant Health wholeheartedly supports efforts toward this revitalization.) The average longevity of all medical staff at migrant health centers is between three and four years.[3,8] Migrant health centers also face another disadvantage because their Public Health Service Act section 329/330 grant support prohibits them from using grant money for student loan assumption, which is an attractive recruitment incentive.[3] To be effective migrant health clinics make unusual demands of their staffs, but they are financially crippled in their ability to recruit and retain staff.

One affordable and effective means of staff recruitment is participation in preceptorship programs, which place medical and other health professional students in clinics where they practice under supervision. These programs provide staffing power for migrant health clinics now, and promote migrant health centers as an attractive career option to participants later. The mutually beneficial nature of this option makes it one that should be aggressively promoted and pursued. Participation in these programs has resulted in better staff retention in the clinics, and enthusiasm on the part of the students for primary care and for entering community health practice.[3,9,10] Most of the existing programs are for physicians in training, but small programs to place physician assistants are also being developed.[11]

The unique demands of migrant health service reveal a need for bilingual and bicultural staff.[2] The migrant health centers also require a broad of staff, including nurses, nurse practitioners, nutritionists, mental health counselors, dentists, and social workers in addition to physicians.[3] Since the clinics are unable to compete with mainstream salaries, they need to be able to offer other incentives for recruitment, and they need to be able to offer those incentives to all types of providers, not just physicians.[3,9] One way to do this would be to allow migrant health clinics to assume student loans for staff members, and to allow them do to this for all health professions rather than for physicians only.[3] Also, the success of programs like the lay health advisor program indicates that the migrant community itself is a good source of capable, bilingual, bicultural, motivated personnel for training and subsequent employment in the field of migrant health.[6] Involvement of migrant students early in their education, before the dropout rate reduces their numbers drastically, could be an effective method to tap this resource, especially if loans, grants, and/or other incentives were developed for students who finished high school and pursued careers in the health professions. Since many students leave school to work, mentoring programs which paid a stipend for summer jobs in health centers would provide a means for students to stay in school.

Migrant farmworkers desperately need access to health care, and migrant health clinics need qualified, motivated staff in order to deliver health care services.[3] Lacking parity of wages with mainstream clinics, incentive programs must be implemented in order to inspire qualified health professionals to seek employment in migrant health care.[9] Recruitment to primary care service in under-served areas is most successful among health professionals who either come from under-served areas themselves, including minorities, or whose training included some exposure to primary care settings for under-served populations.[12,13]

References

1. *Medicaid and Migrant Farmworker Families: Analysis of Barriers and Recommendations for Change.* Washington, DC: National Association of Community Health Centers, 1991.
2. Utting, Gemma. "Migrant Mental Health: Independent Study." Unpublished paper, 1988.
3. Department of Program Development. *Physicians in Community and Migrant Health Centers: A Study of Staffing, Compensation, and Retention Patterns.* Washington, DC: National Association of Community Health Centers, 1987.
4. Egan, Jack. Acting Director, Bureau of Health Care Delivery and Assistance, Migrant Health Program. Personal communication, January 13, 1992.
5. Bishop, Margaret and Harrison, Matthew. *Farm Labor Camp Outreach: A Step Toward Meeting the Healthcare Needs of the Hispanic Farmworker in Oregon.* Unpublished report, 1987.
6. Department of Maternal and Child Health. *Improving the Health of Migrant Mothers and Children: Final Report.* Chapel Hill, NC: University of North Carolina at Chapel Hill, 1990.
7. Lorich, Mary L. "Migrant Workers Clinic: Nurses Provide More Than Health Care." *Children Today*, July-August 1985, pp. 30-34.
8. Cheney, Charles. *Migrant Project Nursing Staff Profile and Recruitment/Retention Survey, Survey Conclusion and Related Report.* Washington, DC: National Association of Community Health Centers, 1987.
9. California Health Federation. *40 Steps to Better Physician Recruitment and Retention: A Guidebook for Community and Migrant Health Centers.* Rockville, MD: U.S. Department of Health and Human Services, 1985.
10. National Association of Community Health Centers. "AMSA Announces 1992 Health Promotion/Disease Prevention Project." *The Link*, November 1991, p. 5.
11. "Migrant Health Project Moves Forward." *AAPA (American Academy of Physicians Assistants) News*, September 1990, p. 1.
12. National Advisory Council on the National Health Service Corps. *Proposed Strategies for Fulfilling Primary Care Professional Needs, Part II: Nurse Practitioners, Physician Assistants, and Certified Nurse Midwives.* Rockville, MD: National Health Service Corps, 1991.
13. National Advisory Council on the National Health Service Corps. *Proposed Strategies for Fulfilling Primary Care Manpower Needs.* Rockville, MD: National Health Service Corps, 1990.

Family Issues

The harsh realities of life in the migrant stream include poverty, hard manual labor, unsanitary living conditions,[1] lack of medical insurance or access to care facilities,[2] high rates of illness, early death, economic uncertainty, and personal humiliation.[3,4] The same issues which affect migrant farmworkers as individuals impact them as families as well. According to the Department of Labor, the majority of seasonal agricultural workers are married and/or have children. Two in five of these workers live away from their families while doing farm work.[5] For single male workers who must leave their families behind as they migrate in search of work, social isolation and lack of recreational outlets takes it toll. When asked how he felt about being alone, one worker responded simply, "It is very ugly."[6] Many other migrant farmworkers travel as family units, whether they do so independently in extended family groups or under the control of a crew leader.[1] Women labor all day in the fields and bear the full responsibility for domestic labor when the official work day is over.[7] The results of living under such conditions are poor physical health, strained personal and family relationships,[3] increased incidence of child abuse, and an even greater incidence of unintentional child neglect.[1,8,9] In all senses, the well-being of migrant farmworker families is jeopardized by the conditions of their existence.

The general toll their lifestyle takes on the health of migrant farm laborers is well documented. The incidence of pathological conditions may vary by over 175 percent from one source to another. What is agreed on, however, is that migrant farmworkers suffer higher rates of tuberculosis, intestinal parasitic infection, skin diseases, influenza, pneumonia, gastrointestinal diseases, and skin diseases than the national average.[1,4,10] They are also at high risk for accidents and pesticide exposure.[3,10] Their irregular income leaves them prey to malnutrition.[11] Their mobility makes it difficult for them to access health care for chronic complaints or any condition which requires continuous care. Pregnant women often do not receive adequate prenatal care, and children are not usually taken for medical care unless they are displaying symptoms.[12] The life expectancy of a migrant laborer is 49 years, compared to the national average of 73 years.[1] The national infant mortality rate is 14 out of 1,000, while a 1989 study found the infant mortality rate among California migrant farmworkers is 30 out of 1,000 and the mortality rate for migrant farmworker children up to the age of five is 46 out of 1,000.[13] Examination of children on one study revealed that a large number had conditions requiring treatment which were asymptomatic.[14] Another study revealed that migrant farmworker children were not achieving the average height for their ages, were vitamin-deficient, and showed many other symptoms of malnutrition even though they had the proper proportion of subcutaneous fat for their size.[11]

Migrant laborers often are living by survival economics, and are geographically isolated from treatment centers. Money, time off

required from work, and lack of transportation, combined with linguistic and cultural disparity are the most effective barriers to health treatment which migrant workers face.[12] Most migrant farmworkers have only a fifth- or sixth-grade education,[12] and many do not speak English as their first language.[5,15] These factors make it difficult for the migrant farmworker to recognize and be able to communicate the details of health problems to caregivers when they manage to reach a health care facility.[4] As stated in a 1991 report on farmworker health status, "Whatever the reason for not visiting health clinics, the outcomes are clear--multiple morbidities representing a population with poor health status that may need significantly greater care and more treatment due to the delay in receiving initial care."[10]

A study conducted by Public Voice in 1989 found that 50 percent of the migrant farmworkers surveyed had diets that did not meet the Recommended Daily Allowance for vitamin A, iron, or calcium. Almost a third reported running out of food or not having enough food at some time during the last year. Twenty- to 25 percent suffered from intestinal parasites, with the highest infection rates being among children. Yet fewer then 25 percent participated in the Food Stamp program because of misconceptions which led them to believe they were ineligible.[16] Other studies found that migrant farmworkers bought the foods that they could afford to buy in the order of: meat, milk, sweets, fruits, and vegetables. If they could not afford to buy from all these groups, they cut them out of the food budget in reverse order. The children of these families were found to be vitamin-deficient and suffered from disorders induced by malnutrition.[11]

Women in the migrant farmworker population often receive little or not prenatal care during their pregnancies. Many pregnant farmworker women fall into high risk groups due to being younger than eighteen or older than 35. Lack of money, lack of transportation, and lack of child care are all cited as reasons for not seeking prenatal care, as well as not perceiving a need for it.[12,17] Most pregnancies are unplanned and many women do not use any form of birth control, although many of the women interviewed expressed a wish that they had not become pregnant. One study found that the incidence of miscarriage and infant mortality dropped among a group of pregnant women who had received birth control options. The inferences was that mothers with desired pregnancies were more motivated to seek health care for themselves and their infants than mothers with undesired pregnancies. The need for prenatal care in the migrant farmworker population is reflected in a high incidence of miscarriage, infant mortality, and complications of pregnancy, including vaginal and urinary tract infections, anemia, and sexually transmitted diseases.[17]

The social implications of the conditions under which migrant farmworkers live are as dire as the physical ones. One women who fled from domestic violence with her baby described the situation she ran from. She and her husband and infant had shared one-room quarters with five single men. Over time her husband became increasingly violent and unpredictable. He began to beat her and the baby, and she was unable to predict what would initiate a violent episode. She fled after one of the men living with them also began battering her. She attributed her husband's behavior to a reaction to being "pushed around so much," and speculated that "being treated like a slave is harder for men to accept."[4]

The circumstances of the migrant lifestyle—overcrowding, poverty, lack of sanitary living facilities or recreation, and lack of dignity—place great personal strain on individuals which can be reflected in their personal lives.[3] Some individuals and families working under the auspices of a crew leader have no personal control of their finances. If the crew leader is exploitative they often find themselves indebted and virtually indentured to the crew leader.[4] This lack of control over their lives increases the stress on individuals that the migrant lifestyle entails.[3]

A study conducted in New York State found that the risk of child abuse or neglect was six times higher among migrant farmworker families than the national average. Although there was incidence of intentional abuse, most of the 497 allegations listed entailed involuntary neglect, such as 175 allegations of inadequate guardianship; 67 of lack of supervision; 62 of lack of food, shelter, and clothing; 19 of educational neglect; 16 of lack of medical care; and 4 of alcohol or drug use by a child. The tendency toward abuse/neglect was found to be higher in single-parent families, and women were more likely than men to be the perpetrators.[8] A finding by the East Coast Head Start program that there was a higher-than-average incidence of abuse/neglect allegations among migrant farmworkers in the vicinity led to inception of an educational program geared to lower that number. Three years after implementation of the program the incidence of abuse/neglect allegations among the local migrant farmworker population fell by 56 percent, to a number under the national average.[9] The inference of research is that education, day care, and effective social service delivery are the answer to the problem of child abuse and neglect among migrant farmworker families and that, in most cases, families are providing the best care that their precarious economic existence allows.[1]

The center of the migrant farmworker family is the mother. Although men are usually perceived as the primary wage earners, as many as 70 percent of the women work in the fields with their husbands. Although she may share the field work, the women is traditionally considered solely responsible for home and child care as well. This is a staggering burden considering the heavy nature of farm labor. It is also staggering to realize that 63 percent of the migrant farmworker population is estimated to consist of children 16 years of age or younger who require care. The problem of child care is a serious one, and frequently mothers have no choice but to take their children to the fields with them or to leave them unattended.[7,18] A retired farmworker told the National Advisory Council on Migrant Health, "In my case I was always working all the time. Sometimes it gets really cold. We [didn't] have enough clothes or food. I didn't want to take my children to work, but I had to take them with me."[19]

That women are anxious to improve the hazardous conditions under which their families live is evidenced by the successes of such programs as the Camp Health Aide program in Michigan and the Salud Clinic Outreach program in Washington State.[20,21] In the Camp Health Aide program, female migrant farmworker volunteers were trained to disseminate health and social service information in the labor camps where they lived.[20] During educational sessions conducted by the Salud Clinic, eager women were taught basic concepts of hygiene to cut the spread of intestinal parasites and other diseases. The women explained that they were not unwill-

ing to implement the concepts of good hygiene (in spite of the difficulty of doing so in labor camp housing conditions), but that the connection between hygiene and the spread of disease had never been demonstrated to them before.[21] Farmworker women have also been effective participants in movements to improve wage and working conditions in the migrant community.[7]

A farmworker commented, "I believe we have the right to live in a decent way. We are the labor force. It's like we are foreigners—I am a U.S. citizen. Farmworkers come here with hope but go home worse off than before."[22] Migrant farmworkers work long hours for low wages. They live and work under substandard conditions that frequently pose a hazard to their health and the health of their children. Poverty often causes them to lack proper food and needed health care. The strains in their lives sometimes result in domestic abuse. Their lack of education often leaves them in ignorance of what they can do to help themselves. Experience has shown that migrant farmworkers are willing to adopt measures that will improve the lives of their families, once the means of doing so are shown to them. Migrant farmworker families are a population at risk whose needs should be remembered in any programs geared to aid families.

References

1. Interstate Migrant Education Project. *Interstate Migrant Task Force: Migrant Health.* Denver, CO: Education Commission of the States, 1979.
2. American Academy of Pediatrics, Committee on Community Health Services. "Health Care for Children of Migrant Families." *Pediatrics,* October 1989, pp. 739-740.
3. Utting, Gemma. "Migrant Mental Health: Independent Study." Unpublished paper, 1988.
4. Schwartz, Loretta. "The Plight of America's Five Million Migrants." *Ms. Magazine,* June 1978, pp. 65++.
5. U.S. Department of Labor, Office of Program Economics. *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers.* Washington, DC: U.S. Department of Labor, July 1991.
6. Preda, Jesus. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
7. Cotera, Martha. *Mexican American Migrant and Farmworker Women.* Austin, TX: National Educational Laboratory, undated.
8. Alvarez, William F.; Doris, John; and Larson, Oscar III. "Children of Migrant Farmworker Families Are at High Risk for Maltreatment." *Migrant Health Newsline,* Clinical Supplement, May/June 1989.
9. Markello, James R. "Reducing Child Abuse/Neglect in East Coast Migrant Headstart Program." *Migrant Health Newsline,* Clinical Supplement, May/June 1989.
10. Dever, G. E. Alan. *Migrant Health Status: Profile of a Population With Complex Health Problems.* Austin, TX: National Migrant Resource Program, Inc., 1991.
11. *Emergency Food and Medical Service. Nutritional Status of Preschool Mexican American Migrant Farm Labor Children.* Denver, CO: Colorado Migrant Council, 1969.
12. Watkins, Elizabeth; Peoples, Mary D.; and Gates, Connie. "Health and Social Service Needs of Women Farmworkers Receiving Maternity

Care at a Migrant Health Center." Presentation to American Public Health Association Annual Meeting, Dallas, Texas, November 1983.

13. Slesinger, Doris; Christensen, Bruce; and Cautley, Eleanor. "Health and Mortality of Migrant Farm Children." *Social Science Medicine*, vol. 23 no. 1, pp. 65-74.
14. Smith, Gregory; DeAngelis, Catherine; and Hanser, Joan. "Health Status of a Subgroup of Migrant American Children." *Clinical Pediatrics*, December 1978, pp. 900-903.
15. Trotter, Robert T. *Orientation to Multicultural Health Care in Migrant Health Programs*. Austin, TX: National Migrant Resource Program, 1988.
16. *Migrant Nutrition Study Fact Sheet*. Washington, DC: Public Voice for Food and Health Policy, 1989.
17. *Preliminary Report: Migrant Maternity Study*. Denver, CO: Colorado Migrant Health Program, 1985.
18. de la Torre, Adela and Rush, Linda M. "The Effects of Healthcare Access on Maternal and Migrant Seasonal Farmworker Women Infant Health of California." *Migrant Health Newsline*, Clinical Supplement, January/February 1989.
19. Carmona, Otilia M. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.
20. Stewart, Genevieve. Personal and Collective Empowerment Among Migrant Farmworker Camp Health Aides. Detroit, MI: Midwest Migrant Health Information Office, 19??.
21. Bishop, Margaret and Harrison, Matthew. *Farm Labor Camp Outreach Project: A Step Toward Meeting the Healthcare Needs of the Hispanic Farmworker in Oregon*. Unpublished report, 1987.
22. Unidentified Farmworker. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Research

The available information regarding migrant farmworkers in America generates as many questions as it does answers. Who are migrant farmworkers? How many of them are there? Where do they come from? What is the state of their health? What are their living conditions? These are questions to which the current literature offers conflicting and piecemeal answers. Current, comprehensive, nationwide studies of the migrant farmworker population are lacking.[1] Much of the research on migrant farmworkers is seriously out of date, having been done in the 60s and 70s.[2] It is generally acknowledged that census figures are not reliable indicators of the actual numbers of migrant farmworkers,[1] and the tabulation methods of other agencies that count migrant farmworkers result in widely varying totals.

Regional information reveals the migrant farmworker population to be at high risk for health problems and frequently to be in distress.[3] While studies at the local, state, and stream levels may be useful for planning in specific areas, these studies "... have limited applicability to the wider farmworker population. Yet not infrequently, the results of these studies are used to represent the farmworker population at large."[4] But migrant farmworkers are a mobile population with a shifting composition, and we lack the documentation to accurately assess the needs of the migrant farmworker population as a whole.[1] Because the health problems of migrant farmworkers are inter-related with the other details of their lives, health studies frequently provide background information on the group of farmworkers being observed. But these studies tend to be local or regional in nature, and thus are not representative of the total migrant population.[1] As of 1986, the only national reporting system to track health data among the migrant farmworker population was the Migrant Student Record Transfer System, which tracks the health and academic records of students. No program exists to track this information among the adult population.[1]

Many different government agencies have attempted to number the migrant farmworker population, including the Census Bureau, the Department of Labor, the Migrant Health Program, and the Department of Agriculture. The results of these studies place the migrant farmworker population anywhere between 159,000[5] and five million.[6] The huge discrepancy in these totals is due to the utilization of different counting methods and differing criteria on who is considered a migrant farmworker by the agency.[5] The census count of migrant farmworkers is considered unreliable because it is collected in April and categorizes an individual's employment according to the job they held most recently within the last two-week period. The census is conducted before most agricultural activities employing migrant farmworkers have gotten underway for the year. So, the job that a migrant worker will have held in the last two weeks before the census may not reflect his or her employment for a significant part of the year as a migrant farmworker.[1] Other agencies may count workers, but will

not include their dependents who travel with them and are subjected to the same living conditions and health hazards as the workers. Different agencies also adopt varying standards in determining what constitutes migrant farm work. The fact that migrant farmworkers are a transient population increases the difficulty of counting them accurately.[5]

Also a factor in the comparison of statistics across agencies is the lack of a standard definition of terms. As Galarneau explains, "In the farmworker health context, this assumed migrant difference [from other populations] has also come to characterize seasonal farmworkers. Initially authorized to serve migrant farmworkers and their family members, [the federal Migrant Health Program's] 1970 reauthorization contained an expension of its service population to include seasonal farmworkers and their family members."[4] The Migrant Health Program's program data, therefore, includes data on the combined migrant and seasonal populations. Other programs may report data on migrant or seasonal workers only, or may have definitions of "migrant" and "seasonal" which differ significantly from the definition used by the Migrant Health Program. Finally, "Farmworkers are a diverse population... In the absence of adequate information, farmworker health care services planning, delivery, and evaluation is necessarily based on weak generalizations and assumptions about farmworker health care needs. Such generalizations provide little guidance in the prioritization of needs and in resource allocation. These generalizations and assumptions are often made in the language of difference which obscures farmworker diversity and gives us the impression of having greater knowledge about farmworker health than we actually have."[4]

The composition of the migrant farmworker population is also difficult to determine. The ethnic composition of this population fluctuates and is now predominantly Hispanic, but also includes Blacks, Native Americans, Creoles, Asians, and Whites. The same factors which make it difficult to count migrant farmworkers also make it difficult to precisely categorize them ethnically or to accurately determine their downstream point of origin. But all of these factors can influence an individual's health status and ability to access the health care system.[1] For example, if a clinic can be reasonably sure that there will be no Creole speakers in their client population, there is no need to allocate funds to recruit Creole-speaking staff to that particular clinic. Conversely, if that same clinic incorrectly anticipates having no Creole clients and then gets a significant number of them, the clinic will not be prepared to effectively deliver health care services to them. A clinic must know who its clients will be and have some background knowledge about their problems to be able to effectively allocate its resources.[1]

Statistics on the incidence of disease in the migrant farmworker population reflect vast discrepancies. The Interstate Migrant Education Task Force stated in a 1979 publication that the death rate among migrant farmworkers from influenza and pneumonia was twenty percent higher than that of the average population, and that the death rate from tuberculosis was 25 times higher.[3] An article about migrant farmworkers published in 1978 stated that the death rate among farmworkers from influenza and pneumonia was 200 percent higher than the national average, while the death rate from tuberculosis was 250 percent higher.[7] Both of these publications refer to "migrant farmworkers." We do not know the source of the information in ei-

ther publication; we do not know if these figures were misquoted by one party or the other, or if in different parts of the country both sets of figures might be correct. The introduction to the Interstate Migrant Education Task Force publication quotes the President's Commission on Mental Health that, "... much of the data frequently quoted in reports on the health needs of migrant farmworkers is suspect, and there is a lamentable tendency to pass along such data from one report to another without current documentation as to its validity..."[3]

Similar studies conducted by separate agencies in different migrant streams may produce different results. However, there is usually insufficient data on the populations being studied, or on the study methodology itself, to accurately determine what variables produce the conflicting results.[8] The data from local and regional studies is usually insufficient to justify extending the findings to the whole migrant farmworker population.[5] However, "We need not make another common assumption, that it is impossible to obtain reliable health data on farmworkers. A significant population-wide effort has not yet been made."[4]

Two separate studies on the health and mortality of migrant farmworker children were conducted in North Carolina and Wisconsin.[9,10] The North Carolina study found an infant mortality rate among migrant farmworker children of 30 deaths out of 1,000.[9] The Wisconsin study discovered an infant mortality rate of 29 out of 1,000, but also revealed that 45 out of 1,000 migrant farmworker children die by the age of two, and 46 out of 1,000 die by the age of five.[10] The national infant mortality rate was cited by both studies as 14 out of 1,000. The North Carolina study does not track the infant mortality rate of migrant farmworker children past infancy, so we do not know how children in North Carolina fare after infancy compared to the migrant farmworker children in Wisconsin. Neither of these studies indicates what the conditions actually are for migrant farmworker children across the nation.

The Wisconsin study cited difficulties in the assessment of mortality and health statistics among migrant farmworkers. Vital registrations such as birth certificates did not list the occupation or ethnicity of parents, so the information could not be compiled from registrations. The demographic data from the National Center for Health Statistics also failed to identify migrant farmworkers, and so could not be used for migrant studies.[10] Other sources cite problems in ascertaining death rates among the migrant farmworker population since no states list migrant status on death certificates.[5] The difficulty in obtaining migrant statistics from registrations makes it necessary to obtain them through surveys.[10] This method of data collection is complicated by the fact that many migrant farmworkers are fearful of dealing with officials.[1] These factors make it difficult to scientifically determine whether migrant farmworkers suffer from the same health problems as other impoverished populations or if there are migrant-specific ailments brought about by their working and living conditions.[5]

A 1990 analysis of data collected from migrant health centers in the midwestern migratory stream by the Migrant Clinicians Network provides the broadest picture to date of farmworker health status. The study clearly indicates that the migrant farmworker population is at greater risk and suffers more problems than the general population in the U.S. The study's author notes, "Factors such as poverty, malnutrition, infectious and parasitic diseases, poor educa-

tion, a young population, and poor housing equate to a highly vulnerable population in need of resources... The need for developing a health policy and research agenda for migrant farmworkers in this decade is evident."[11] A review of literature published between 1966 and 1989 pertaining to the health of migrant farmworkers was conducted by George S. Rust, MD. He determined that the health status of migrant farmworkers has not been well measured. According to Dr. Rust's assessment, questions regarding migrant farmworker health remain unanswered on the following issues: population characteristics, mortality and survival data, perinatal outcome data, chronic disease data, occupational risk, nutritional factors, health-related behaviors, and accessibility to health care.[5]

Many regional and local studies have been conducted on migrant health issues, and on a local scale they are useful. But the limited scope of these studies makes them questionable as indicators of the health status of the migrant farmworker population as a whole. To date, most of the information comes from clinic-based research, which is time-consuming and costly and still leaves the major questions regarding the health status of migrant farmworkers nationwide unanswered. One thing which does become apparent from clinic-based research is that the primary care function of the clinics is desperately needed by their client populations. Clinics need their limited resources for primary care, and should not have to make their funding do double duty for both treatment and research.[1] One migrant health project representative stated, "There is tremendous value if we can really document how the health needs are greater for migrant farmworkers... There is also tremendous potential for generating more funding if we can show how we're having an impact on the health of these people... It takes funding to do that. [But] then we get into the bind that if we've got inadequate funding, how do we support the research agenda without sacrificing patient care?"[12]

Accurate information on the migrant farmworker population is required in order to efficiently allocate the resources available to serve their health care needs. This information is also necessary to determine exactly what those needs are at present and to anticipate future needs. Currently, our information on the migrant farmworker population is fragmented, conflicting, and frequently out of date. Research should be both population and practice based in nature, and should be conducted with dollars which are not re-directed from service delivery appropriations.

References

1. Wilk, Valerie A. *The Occupational Health of Migrant and Seasonal Farmworkers in the United States*. Second edition. Washington, DC: Farmworker Justice Fund, 1986.
2. Arnold, Judith and Zuvekas, Ann. *Research Agenda for Community and Migrant Health Centers*. Rockville, MD: U.S. Department of Health and Human Services, 1988.
3. *Interstate Migrant Education Task Force: Migrant Health*. Denver, CO: Education Commission of the States, 1979.
4. Galarneau, Charlene A. "Farmworkers as 'Different': A Matter of Difference or Indifference?" *Migration Today*, forthcoming, 1992.
5. Rust, George S. "Health Status of Migrant Farmworkers: A Literature Review and Commentary." *American Journal of Public Health*, vol. 80 no. 10, pp. 1213-1217.

6. Duggar, Benjamin. *Access of Migrant and Seasonal Farmworkers to Medicaid Covered Health Care Services*. Unpublished paper, May 29, 1990.
7. Schwartz, Loretta. "The Plight of America's Five Million Migrants." *Ms. Magazine*, June 1978, pp. 65++.
8. Watkins, Elizabeth and Larson, Kim. *Migrant Lay Health Advisors: A Strategy for Health Promotion: A Final Report*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1991.
9. Watkins, Elizabeth L.; Peoples, Mary D.; and Gates, Connie. "Health and Social Service Needs of Women Farmworkers Receiving Maternity Care at a Migrant Health Center." Presentation to American Public Health Association Annual Meeting, Dallas, TX, November 1983.
10. Slesinger, Doris P.; Christensen, Bruce A.; and Cautley, Eleanor. "Health and Mortality of Migrant Farm Children." *Social Science Medicine*, vol. 23 no. 1, pp. 65-74.
11. Dever, G. E. Alan. *Migrant Health Status: Profile of a Population with Complex Health Problems*. Austin, TX: National Migrant Resource Program, 1991.
12. Horton, Don. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Bibliography

Alemdar, Zeynap. "Migrants' Housing Needs Critical, Virginia Official Says." *Washington (DC) Post*, August 1, 1986, p. A6.

Alvarez, William F.; Doris, John; and Larson, Oscar III. "Children of Migrant Farmworker Families Are at High Risk for Maltreatment." *Migrant Health Newsline*, Clinical Supplement, May/June 1989.

American Academy of Pediatrics, Committee on Community Health Services. "Health Care for Children of Migrant Families." *Pediatrics*, October 1989, pp. 739-740.

Arnold, Judith and Zuvekas, Ann. *Research Agenda for Community and Migrant Health Centers*. Rockville, MD: U.S. Department of Health and Human Services, 1988.

Bishop, Margaret and Harrison, Matthew. *Farm Labor Camp Outreach Project: A Step Toward Meeting the Healthcare Needs of the Hispanic Migrant Farmworker in Oregon*. Unpublished report, 1987.

Bureau of Health Care Delivery and Assistance, Migrant Health Program. *Outreach Health Services to Migrants: The Reality, The Dream*. Rockville, MD: U.S. Department of Health and Human Services, 1990.

California Health Federation. *40 Steps to Better Physician Recruitment and Retention: A Guidebook for Community and Migrant Health Centers*. Rockville, MD: U.S. Department of Health and Human Services, 1985.

Carmona, Otilia M. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Cheney, Charles. *Migrant Project Nursing Staff Profile and Recruitment/Retention Survey, Survey Conclusion and Related Report*. Washington, DC: National Association of Community Health Centers, 1987.

Coles, Robert. *Migrants, Sharecroppers, Mountaineers*. Boston, MA: Little, Brown & Co., 1967.

Cotera, Martha. *Mexican American Migrant and Farmworker Women*. Austin, TX: National Educational Laboratory, undated.

de la Torre, Adela and Rush, Linda M. "The Effects of Healthcare Access on Maternal and Migrant Seasonal Farmworker Women Infant Health of California." *Migrant Health Newsline*, Clinical Supplement, January/February 1989.

Dever, G. E. Alan. *Migrant Health Status: Profile of a Population with Complex Health Problems*. Austin, TX: National Migrant Resource Program, Inc., 1991.

Duggar, Benjamin. *Access of Migrant and Seasonal Farmworkers to Medicaid Covered Health Care Services*. Unpublished paper, May 29, 1990.

Duran, Ruben. "Mental Health Needs of Migrant Workers." In *Chicano Plan for Mental Health*, pp. 11-17. Santa Monica, CA: COSSMHO, undated.

Egan, Jack. Acting Director, Bureau of Health Care Delivery and Assistance,

Migrant Health Program. Personal communication, January 13, 1992.

Emergency Food and Medical Service. Nutritional Status of Preschool Mexican American Migrant Farm Labor Children. Denver, CO: Colorado Migrant Council, 1969.

Executive Summary: A Study of Housing for Migratory Agricultural Workers. Rosslyn, VA: InterAmerica Research Associates, 1978.

Galarneau, Charlene A. "Farmworkers as 'Different': A Matter of Difference or Indifference?" *Migration Today*, forthcoming, 1992.

Garza, Pablo. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Gilfallan, Sandy. "Harvest of Hope." *Catholic Health World*, April 15, 1991, pp. 5-8.

Gottlieb, Alan and Singleton, Louise R. "Migrant Housing Nightmare: State May Reap Bitter Fruit of Shortage If Workers Leave." *Denver (CO) Post*, August 4, 1991, pp. 1A++.

Guerra, Manuel. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Harlan, Christina. *Migrant Lay Health Advisors: A Process for Change.* Chapel Hill, NC: University of North Carolina at Chapel Hill, 1986.

Harlan, Christina. *Migrant Lay Health Advisors: A Strategy for Health Promotion.* Chapel Hill, NC: University of North Carolina at Chapel Hill, 1986.

Horton, Don. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Housing Assistance Council. *After the Harvest: The Plight of Older Farmworkers.* Washington, DC: American Association of Retired Persons, 1987.

Housing Assistance Council. *Proposal for Migrant Shelter.* Washington, DC: Housing Assistance Council, 19??.

Interstate Migrant Education Project. *Interstate Migrant Task Force: Migrant Health.* Denver, CO: Education Commission of the States, 1979.

Johnston, Helen L. *Health for the Nation's Harvesters: A History of the Migrant Health Program in its Economic and Social Setting.* Farmington Hills, MI: National Migrant Worker Council, Inc., 1985.

Johnston, Helen J. "An Overview of The Growth and Development of The U.S. Migrant Health Program." *Migration Today*, vol. XII no. 4/5, pp. 8-14.

Larson, Kim. *Community Outreach Guidance: A Strategy for Reaching Migrant and Seasonal Farmworkers.* Unpublished draft, 1991.

Larson, Kim. *Maternal and Child Health Migrant Project: A Program Evaluation.* Chapel Hill, NC: University of North Carolina at Chapel Hill, 1986.

Larson, Kim and Watkins, Elizabeth. *Migrant and Lay Health Programs: Their Role and Impact.* Chapel Hill, NC: University of North Carolina at Chapel Hill, 1990.

Laughlin, James A. *Foreigners in Their Own Land: The Migrant and Mental Health.* Chicago, IL: Illinois Migrant Council, 1977.

Leone, Lucile Petry and Johnston, Helen L. "Agricultural Migrants and Public Health." *Public Health Reports*, January 1954.

Lopez, Thomas. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Lorich, Mary L. "Migrant Workers Clinic: Nurses Provide More Than Health

Care." *Children Today*, July-August 1985, pp. 30-34.

Markello, James R. "Reducing Child Abuse/Neglect in East Coast Migrant Headstart Program." *Migrant Health Newsline*, Clinical Supplement, May/June 1989.

McDonnell, Patrick. "Migrant Labor: City Issue Now." *Los Angeles (CA) Times*, November 17, 1990, pp. A1++.

Mestas, Leonard. "Perspective: Migrant Farm Workers and Mental Health." Unpublished paper, undated.

Medicaid State Residency Requirements and Migrant Farmworkers and Their Families: Implications for Federally Qualified Health Centers. Washington, DC: National Association of Community Health Centers, 1990.

"Migrant Health Project Moves Forward." *AAPA (American Academy of Physicians Assistants) News*, September 1990, p. 1.

Migrant Nutrition Study Fact Sheet. Washington, DC: Public Voice for Food and Health Policy, 1989.

More, Thomas. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

National Advisory Council on the National Health Service Corps. *Proposed Strategies for Fulfilling Primary Care Manpower Needs*. Rockville, MD: National Health Service Corps, 1990.

National Advisory Council on the National Health Service Corps. *Proposed Strategies for Fulfilling Primary Care Professional Needs, Part II: Nurse Practitioners, Physician Assistants, and Certified Nurse Midwives*. Rockville, MD: National Health Service Corps, 1991.

National Association of Community Health Centers. "AMSA Announces 1992 Health Promotion/Disease Prevention Project." *The Link*, November 1991, p. 5.

National Association of Community Health Centers. *Health Care, Access and Equality: The Story of Community and Migrant Health Centers and Their National Association*. Washington, DC: National Association of Community Health Centers, Inc., 1990.

National Association of Community Health Centers. *Medicaid and Migrant Farmworker Families: Analysis of Barriers and Recommendations for Change*. Washington, DC: National Association of Community Health Centers, 1991.

National Association of Community Health Centers, Department of Program Development. *Physicians in Community and Migrant Health Centers: A Study of Staffing, Compensation, and Retention Patterns*. Washington, DC: National Association of Community Health Centers, 1987.

Preda, Jesus. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Preliminary Report: Migrant Maternity Study. Denver, CO: Colorado Migrant Health Program, 1985.

Rust, George S. "Health Status of Migrant Farmworkers: A Literature Review and Commentary." *American Journal of Public Health*, vol. 80 no. 10, pp. 1213-1217.

Sakata, Bob. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Schwartz, Loretta. "The Plight of America's Five Million Migrants." *Ms. Magazine*, June 1978, pp. 65++.

Shapiro, Bobbi. "Unanswered Questions: Homosexuality Among Migrant Farmworkers." *Migrant Health Newsline*, Clinical Supplement, May/June 1989.

Simons, J. W. *Housing for Migrant Agricultural Workers*. Washington, DC: U.S. Department of Agriculture, 1970.

Slesinger, Doris P.; Christensen, Bruce A.; and Cautley, Eleanor. "Health and Mortality of Migrant Farm Children." *Social Science Medicine*, vol. 23 no. 1, pp. 65-74.

Smith, Gregory; DeAngelis, Catherine; and Hanser, Joan. "Health Status of a Subgroup of Migrant American Children." *Clinical Pediatrics*, December 1978, pp. 900-903.

Stewart, Genevieve. *Personal and Collective Empowerment Among Migrant Farmworker Camp Health Aides*. Detroit, MI: Midwest Migrant Health Information Office, 19??.

Tijerina, Jesus. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

Trotter, Robert T. *Orientation to Multicultural Health Care in Migrant Health Programs*. Austin, TX: National Migrant Resource Program, 1988.

Unidentified Farmworker. Testimony before the National Advisory Council on Migrant Health. Fort Lupton, Colorado Public Hearing, September 7, 1991.

U.S. Bureau of Labor Statistics. *CPI Detailed Report*, January 1991, and unpublished data.

U.S. Congress. *Migrant Health Program: Current Operations and Additional Needs*. Washington, DC: U.S. Senate, Subcommittee on Migratory Labor, 90th Congress, 1st Session, December 1967.

U.S. Congress. *Migrant Health Services*. Washington, DC: U.S. Senate, 91st Congress, 1st Session, December 18, 1969.

U.S. Congress. *Family Health Services Act of 1988, Report*. Washington, DC: U.S. Senate, Committee on Labor and Human Resources, 100th Congress, 2nd Session, May 9, 1988.

U.S. Department of Labor, Office of Program Economics. *Findings from the National Agricultural Workers Survey (NAWS) 1990: A Demographic and Employment Profile of Perishable Crop Farm Workers*. Washington, DC: U.S. Department of Labor, July 1991.

University of North Carolina at Chapel Hill, Department of Maternal and Child Health. *Improving the Health of Migrant Mothers and Children: Final Report*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1990.

Utting, Gemma. "Migrant Mental Health: Independent Study." Unpublished paper, 1988.

Watkins, Elizabeth; Peoples, Mary D.; and Gates, Connie. "Health and Social Service Needs of Women Farmworkers Receiving Maternity Care at a Migrant Health Center." Presentation to American Public Health Association Annual Meeting, Dallas, Texas, November 1983.

Watkins, Elizabeth and Larson, Kim. *Migrant Lay Health Advisors: A Strategy for Health Promotion, A Final Report*. Chapel Hill, NC: University of North Carolina at Chapel Hill, 1991.

Watkins, Elizabeth L.; Peoples, Mary D.; and Gates, Connie. "Health and Social Service Needs of Women Farmworkers Receiving Maternity Care at a Migrant Health Center." Presentation to American Public Health Association Annual Meeting, Dallas, TX, November 1983.

Wilk, Valerie A. *The Occupational Health of Migrant and Seasonal Farmworkers in the United States*. Second edition. Washington, DC: Farmworker Justice Fund, 1986.

Work Groups, National Farmworker Substance Abuse Prevention Symposium. *Substance Abuse Prevention in the Migrant and Seasonal Farmworker Population: A Plan of Action for the Year 2000.* Austin, TX: National Migrant Resource Program, Inc., December 1990.

Accessing the Migrant Health Program

A GUIDE FOR HEALTH CARE AND SOCIAL SERVICE PROVIDERS

More than 4 million migrant and seasonal farmworkers, who plant and harvest America's produce, struggle under the weight of substandard living and working conditions. The demands of constant relocation, cultural and language barriers, and geographic isolation make it difficult for traditional health care systems to reach this working population of more than 4 million.

The *Health Resources and Services Administration's* **Migrant Health Program** *provides* health care to workers and their families at more than 100 Migrant Health Centers across the country and in Puerto Rico. The program has developed partnerships with public and private agencies serving these groups, and offers creative opportunities for health professionals to make a positive and needed contribution to the health of this underserved population.

WHO WE SERVE

- A *migrant* farmworker is one whose principal employment is in agriculture on a seasonal basis and moves from job to job. A *seasonal* farmworker is one whose principal employment also is in agriculture on a seasonal basis but does not change his or her residence to move from job to job.
- Migrant and seasonal farmworkers live and work in substandard conditions including low wages, geographic isolation, lack of sanitary facilities, exposure to toxic chemicals, extremes of weather, long working hours and inadequate housing.
- The farmworker force, currently estimated at 4 million, fluctuates in size during each year in response to job availability and weather conditions.
- Migrant and seasonal farmworkers served by the program generally fall into the following groups:

Ethnic Origin	Percent	Age Group	Percent
Hispanic	50%	≤14	39%
Black	35%	15-64	55%
White, Asian	15%	≥65	6%

- Migrant farmworkers generally travel and work along three migratory "streams":

The eastern stream originates in Florida, Puerto Rico, the Virgin Islands and other Caribbean islands. Workers move north along the Atlantic seaboard.

67-548 O - 93 - 11

The midwest stream originates in Texas. Workers generally move to the midwestern states but may join the eastern or western streams to find work.

The western stream originates in southern California and workers move north to Idaho, Oregon, Washington and other agricultural areas in the northeast.

MIGRANT WORKER HEALTH STATUS

Basic health problems of migrant and seasonal farmworkers include:

- *A higher rate of toxic chemical exposure than any other occupation*
- A higher rate of heat stress and dehydration than other occupations
- Parasitic infections 20 times greater than the general population
- Death rates from influenza and pneumonia 20% and 200% higher respectively than the national average
- Dental disease continues to rank in the top 10 migrant health center diagnoses
- Dental disease is the number one condition among males ages 10-14

PROGRAM OPERATIONS

- Annual appropriations have averaged between $45 million to more than $50 million
- More than 100 health centers serve nearly 600,000 workers and family members at 400 clinic sites in 40 states and Puerto Rico
- More than 70 health centers provide dental services to 70,000 workers and their families
- Comprehensive primary health care is provided through the Migrant Health Program including:
    - perinatal and family planning,
    - diagnostic lab & x-ray procedures,
    - emergency medical services,
    - pharmaceutical services,
    - preventive dental services,
    - transportation assistance,
    - social service assistance,
    - outreach activities, and
    - health education.

NATIONAL ADVISORY COUNCIL ON MIGRANT HEALTH

- The National Advisory Council on Migrant Health is a legislatively mandated council which makes recommendations to the Secretary of Health and Human Services on matters affecting the delivery of health care services to migrant and seasonal farmworkers. Phone 301-443-1153.

MIGRANT HEALTH PROGRAM RESOURCES

- **National Migrant Resource Program,** Austin, Texas
  National resource center of materials related to migrant and seasonal farmworkers' issues. The program provides technical and program assistance to a national network of migrant health centers. Phone 1-800-531-5120

- **National Association of Community Health Centers,** Washington, D.C.
  Provides technical and program assistance and coordination to migrant health centers. Phone 202-659-8008

- **National Rural Health Association,** Kansas City, Missouri
  Provides technical and program assistance on rural health issues and administers the Physician Assistant Fellowship program in migrant health centers. Phone 8 16-756-3140

- **Migrant Clinicians Network,** Austin, Texas
  Supports a national network of health professionals in migrant health centers; develops clinical protocols and recruitment of health professionals in migrant health centers, coordinates practice based research, clinical advocacy, and leadership development. Phone 1-800-531-5120

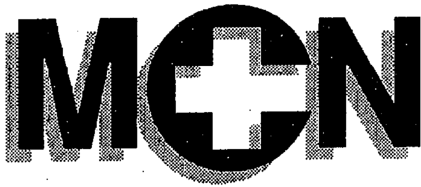
- **Rural Community Assistance Program,** Leesburg, Virginia
  Provides Technical assistance in environmental health issues. Phone 703-771-8636

- **National Migrant Worker Council,** Detroit, Michigan
  Recruits professional seasonal health and allied health professionals to provide a variety of health and social services with migrant and community health centers along the eastern stream. Recruits and trains migrant women as camp health aides. Provides technical assistance on implementing vision programs in migrant health centers through the Association of Schools and Colleges of Optometry (ASCO). Phone 219-232-6573

- **Farmworker Justice Fund,** Washington, D.C.
  Provides reports and studies concerning occupational health hazards of migrant and seasonal farmworkers. Involved in litagation and advocacy on farmworker issues. Phone 202-462-8192

- Academic institutions & health professional associations development of various studies, health promotion programs and advocacy related to migrant and seasonal farmworkers

For more information, contact your US Public Health Service Regional Office or the Bureau of Health Care Delivery and Assistance, Migrant Health Program, 5600 Fishers Lane, Room 7A- 55, Rockville, Maryland 20857



monograph series

MIGRANT CLINICIANS NETWORK

Migrant Health Status:

Profile of a Population With Complex Health Problems

By G. E. Alan Dever, PhD, Mercer University School of Medicine

Executive Summary

The results from this study are significant, shocking, and convincing. The findings are based upon a sample of migrant and seasonal farmworkers living and working in the U.S., yet their demographic patterns, socioeconomic conditions, life-style characteristics, and disease categories reflect agrarian third world conditions rather than those of the most powerful and affluent nation in the world. Factors such as poverty, malnutrition, infectious and parasitic diseases, poor education, a young population, and poor housing equate to a highly vulnerable population in need of resources. Clearly, the migrant population is at greater risk and suffers more problems than the general population of the U.S. The results of this research demonstrate the need for more services, care, and treatment. The need for developing a health policy and research agenda for migrant farmworkers in this decade is evident.

Since the Migrant Health Act was passed in 1962, migrant health centers have struggled to serve the migrant and seasonal farmworkers and their families who make up the backbone of this country's agricultural work force. The on-going battle to improve the health status of farmworkers has not been easy, and is being lost. Current estimates show that migrant clinics are able to serve less than twenty percent of this nation's migrant farmworkers.

Health centers have been handicapped in their efforts to focus attention on this gap in service by the lack of reliable data on the health status of the farmworkers they serve. While some data is available for individual clinics or regions, this information does not give a clear national picture of the health problems experienced by these workers and their families.

Now, thanks to the Migrant Clinicians Network in partnership with the National Migrant Resource Program, the first national study of morbidity in the farmworker population gives us solid evidence that their health status is far below that of the general population. In addition, the findings indicate that migrant farmworkers experience *different* problems from those of other populations.

With technical support from the National Migrant Resource Program, the Migrant Clinicians Network sampled utilization data for this study from four migrant health centers in the states of Texas (a homebase area for migrant and seasonal farmworkers), Michigan, and Indiana (non-homebase areas). The program health analysis examined data from a total of 6,969 medical encounters during the study period. In addition, community health data was collected on two control group counties in addition to the study area in order to test the hypothesis that Hispanic migrant and seasonal farmworker populations differ from the Hispanic population *per se*.

This study focused on farmworkers in the midwestern migratory stream. Although the data was not cross-tabulated to track individual workers, data was collected for workers both in their homebase area in Texas and in the upstream areas where they work. Access to health care services tends to be more limited in migrant homebase areas than in non-homebase areas due to the concentration in homebase areas of other potential clinic users who compete with farmworkers for access to services. Because the data indicate that the differences between farmworker health status and that of the general U.S. population is more pronounced for workers in their home areas than for those working upstream, this monograph concentrates scrutiny on data from the homebase study area counties. However, the final study report presents data from all of the study area counties, including both homebase and non-homebase areas.

Comparison with General Population

- Migrant farmworkers have different and more complex health problems from those of the general population.
- Migrant farmworkers suffer more frequently from infectious diseases than the general population.
- Farmworkers have more clinic visits for diabetes, medical supervision of infants and children, otitis media, pregnancy, hypertension, and contact dermatitis and eczema.
- Clinic visits for general medical exams account for only 1.4 percent of all visits to migrant health clinics, 39 percent below the U.S. average.
- Demographic analysis of the study area counties indicates that the farmworker population has more young people and fewer older people than the general U.S. population.

Multiple Health Problems

- Multiple and complex health problems exist among over 40 percent of all farmworkers who visit migrant health clinics.
- Patients under one year and over 64 years old had the highest occurrence of multiple health problems.
- The diagnostic category "Factors Influencing Health," which covers preventive services, produced the most clinic visits for all migrant workers. This suggests that migrant health clinics are actively providing health promotion and disease prevention services. In addition, this may indicate that coordination of complementary service resources such as WIC may significantly increase access to health care.

Community Health Status

- As many as 58 percent of all households in migrant "homebase" areas are below nationally defined poverty levels, compared with only 1.4 percent nationally.
- Homebase areas have a higher-than-average proportion of households with low median income, low median home value, and low percent of college graduates.
- The overall health of farmworkers in homebase areas is significantly worse than that of either the general U.S. population or farmworkers in non-homebase migrant areas.

Health Status by Age

- Clinic visits for ages 1-4 are mostly for infectious and nutritional health problems. Health problems for ages 5-9 are also primarily infectious, but dental problems also appear for the first time in this group.
- Dental disease is the number one health problem for patients aged 10-14.
- Pregnancy is the most frequent presenting health condition for females aged 15-19; dental disease is number one for males.
- Females age 20-29 visit clinics primarily for pregnancy, diabetes, common cold, and reproductive problems. Males visit primarily for contact dermatitis and eczema, strep throat and scarlet fever, and dental problems.
- In the 30-44 age group, two of the top three problems for both males and females are diabetes and hypertension.
- Nearly half of all clinic visits for men and women in the 45-64 age group are for diabetes, hypertension, or arthropathies.
- Among the elderly, over 60 percent of clinic visits by males and 80 percent by females are for diabetes and hypertension.

Geography and Demography

- The non-homebase study counties have an overall higher median age than the country as a whole.
- The homebase counties have more children under 15 and fewer elderly over 65 than either the U.S. in general or non-homebase migrant areas.
- Per capita income in all study counties except one is below the U.S. average. Migrant homebase areas show a 1989 per capita income 50 percent less than the U.S. level of $13,218.
- Over 20 percent of the households in the homebase study area have incomes of under $7,500; households with incomes under $7,500 in non-homebase areas range from 7 percent to 14 percent.

Introduction

Our knowledge of the overall health status of the farmworkers who use migrant health clinic services is quite limited. Some health status information is available for individual clinics; however, such information does not give a national picture of the problems encountered by farmworkers. A number of studies to date have filled in pieces of the migrant health status puzzle.

Literature Review

There are approximately 4.2 million migrant and seasonal farmworkers in the United States. This is comparable in size to the population of Minnesota. But the health status of the residents of Minnesota is well documented and understood. On the other hand, we know very little about the health status of migrant and seasonal farmworkers. These workers represent a highly mobile group. Thus, in order to understand their health status we must rely on a variety of reporting systems which do not uniformly collect this information on migrant farmworkers. Much of what we do know of the health status of this population has been collected independently by individual clinics throughout the country, and has never been aggregated across migratory streams or across the farmworker population as a whole.

A review of the current literature yields a wide range of opinions regarding the health problems of migrant and seasonal farmworkers. These opinions were often elicited from health professionals who one or more areas of expertise and, in some cases, knowledge about a specific geographical area. In addition, the perception by migrant workers themselves that they suffer from non-specific ailments including backaches, headaches, colds, and "strong anger" is shared by many health professionals who serve them. Data from existing studies would support this contention. Further, the literature review found other important health problems which have been noted by health professionals. For example, added to the above list of concerns, the following were identified as significant health problems: anemia, high blood pressure, diabetes, accidents, exposure to pesticides, general dental problems, heart attack, infectious diseases.

A review of the literature made it possible to estimate the leading causes of farmworker death and the principle reasons given by farmworkers for visiting migrant health centers. In many instances these problems could also be categorized by age group. In comparing these random mortality and morbidity studies from the literature with the results of the actual clinical data as presented in this and other professional reports, the morbidity patterns are frequently similar.

Study Area

Four migrant health centers in three states were studied for this report. The four health centers are: Migrant and Rural Community Health Association (MARCHA) in Bangor, Michigan; Indiana Health Centers (IHC) in Indianapolis, Indiana; Hidalgo County Health Care Corporation (HCHCC) in Pharr, Texas; and Su Clínica Familiar (SCF) in Harlingen, Texas. Each center has unique social, economic, and demographic characteristics. In addition, two control group counties were selected to facilitate comparison to the study areas.

The centers to be sampled were selected by the Migrant Clinicians Network (MCN) and represent two "homebase" and two "non-homebase" sites in the Midwestern migratory stream. All migrant clinic utilization (encounter) data for the months of June through August 1986 for the Michigan centers, July through September 1986 for the Indiana center, and November 1986 through January 1987 for the Texas centers were collected. A total of 6,969 patient encounters were included in the final data analysis. With assistance from The MITRE Corporation, MCN performed an extensive data analysis to produce a set of tables illustrating Diagnostic Related Groups (DRGs) by site, age, and sex. These data were further evaluated by looking at the top 20 morbidities by life-cycle and site location (i.e., homebase vs. non-homebase). Additionally, co-morbidities were determined for each age group for all centers. The results were used to identify appropriate clinical indicators for evaluation.

This document presents information on migrant health status from several perspectives. First, the demographic characteristics of the study population are discussed. Second, data relevant to community-based health status (i.e., homebase vs. non-homebase population) are presented. Next are program health status findings based on comparisons of clinic-specific data with findings from the National Ambulatory Medical Care Survey. Fourth, co-morbidity patterns in migrant health clinics are examined. Finally, the development of clinical indicators is discussed.

Geography

The migrant and seasonal farmworker population is distributed across almost every state in the U.S. California has the most farmworkers, while Rhode Island has the least. The states of Michigan, Indiana, and Texas, which comprise the study area for this report, are estimated to have a combined farmworker population of about 575,000 workers, about 13.7 percent of all farmworkers in the country. These three states are in the Midwestern migratory stream, with Indiana and Michigan located "upstream" (non-homebase areas) and Texas "downstream" (a homebase area). The service areas of the four major migrant health centers used in this study encompass a total of eighteen counties.

The agricultural working season varies between the three study areas. Texas has a year-round growing season, while the season in Indiana and Michigan is approximately seven months. Over 50 percent of Hidalgo county's population is comprised of farmworkers; for Cameron and Willacy counties the percentages are 17.8 and 39.3, respectively. The analysis of much of the data in this report is predicated on the assumption that the Texas sites are homebase areas for migrant and seasonal farmworkers. Subsequent references in this report to "homebase" and "non-homebase" migrant populations refer to the Texas and Indiana/Michigan sites respectively.

Demography

Demographic data are almost always prerequisites for basic community health analysis, since demographic trends directly influence health and disease patterns. Accompanying any demographic trend is a public and health policy implication reflective of a healthy public policy. Thus, a basic analysis of demographic trends is critical to understanding the problems encountered by migrant and seasonal farm workers. Moreover, we know very little about the demographic characteristics of these workers.

This demographic analysis related to migrant and seasonal farmworkers was conducted from two perspectives: an ecological analysis of migrant homebase and non-homebase areas served by migrant health centers, and a program analysis of patient data from the four migrant health centers.

Population Characteristics

In the study area counties, the percentage of migrant and seasonal farmworkers as a percentage of total county population differs dramatically among counties, ranging from .23% in Grant County, Indiana to 51.7% in Hidalgo County, Texas. In fact, for all the Indiana and Michigan study area

counties farmworkers make up less than 9.0%. In contrast, in the homebase study area (Texas) counties the percentages are high—ranging from 17.8% to 51.7%.

Furthermore, the Hispanic population in these study areas has similar distributional characteristics. Approximately 2% of the Michigan and Indiana population is Hispanic, whereas for Texas the corresponding number is 27.7%. County-specific data for these sites are similar to their respective states, except in the case of Texas. The study area counties in Texas have more than 90% Hispanic population. With the high proportion of migrant workers and the high percentage Hispanic population in the Texas study area counties, a contingency analysis indicates that the demographic characteristics described in this study may be considered as representative of the homebase Hispanic migrant and seasonal farmworker.

Age Distribution

The median age of the U.S. population in 1989 was 32.7 years. In contrast, the median ages for the homebase study counties were 28.1, 27.8, and 27.4 for Cameron, Hidalgo, and Willacy counties respectively. The median ages for the Indiana counties were on the average *above* that of the U.S., and the Michigan counties range from 0.2 years above to 2.1 years *below* the U.S. median.

The proportion of the population less than 15 years old and the proportion over 65 in a geographical area are significantly related to disease patterns. The percentage of population in the U.S. under age 15 is 21.7%. The homebase counties range from 8.8% to 9.4% above the U.S. proportion. On the other hand, non-homebase counties range from 1.4% below to only 2.9% above the U.S. The percentage of population over age 65 in the U.S. for 1989 was 12.5%. The non-homebase areas have greater percentages of older citizens while the homebase counties have a lower percentage than the U.S.

This demographic pattern of a high proportion of younger people and a low proportion of older people is typically associated with infectious disease cycles. Thus, not knowing the disease patterns of the homebase study area counties, we could expect nutritional problems, infectious diseases, and parasitic diseases to dominate and to be concentrated in the younger age groups. Additionally, since the proportion of elderly persons is less in the homebase counties than in the U.S. as a whole, we could expect less chronic disease. Specifically, the magnitude of representative diseases (such as heart disease, cancer, and diabetes) would be lower compared to other areas where the population is significantly older than the U.S., and certainly older than the migrant population. This clearly suggests that migrant farmworkers would be dominated by an infectious disease cycle typical of third world countries, with an emerging secondary chronic disease pattern typical of a population getting older and more urbanized. This paradox of many young/few old produces mostly infectious disease for the rural farmworker and chronic disease for the urban migrant worker. A transition is taking place.

The population distribution of patients who attended migrant health clinics for the three homebase study area counties is compared to the state and U.S. distributions. The program-specific data (obtained from farmworker clients who visited the migrant clinics) are contrasted with community-based data which were obtained for the entire population in an area where migrant centers are located. Thus, the first data set is program-specific information, whereas the second data set is community-based information. The pattern in the two data sets is very similar. However, the age distribution of patients who visit migrant clinics is quite different when compared to the U.S. age distribution. The age groups under age 15 make up 30% of the patient population in the migrant clinics, whereas the corresponding percentage in the U.S. is 20%. Further, the group over age 65 is under-represented in the clinic data compared to U.S. population data.

Population Growth

The population growth of an area is also a key variable in understanding the health and disease patterns of a population. Projected percent change in population 1989 to 1994 for the study area sites indicates that most of the Indiana counties will lose population by 1994, while the Michigan and Texas counties gain population. The growth rates for these two latter areas range from 0.3 percent to 11.8 percent. High growth rates in an area may be due to a high birth rate and/or a high immigration level. In addition, high birth rates reflect a wide-based population pyramid and are typical of a population in a high infectious disease cycle. The homebase areas in the current study fit this pattern.

Economic Characteristics

The relationship between population variables and economic characteristics can further add to an our understanding of the disease patterns for a community. In this study, the homebase areas were clearly economically disadvantaged when compared to the U.S. and the non-homebase migrant areas. The per capita income for the homebase migrant areas is one-half that of the U.S. and most of the non-homebase areas. For example, the U.S. per capita income in 1989 was $13,218, compared to only $6,087 for Willacy County, Texas. In the U.S. as a whole 11.9% of all households earned less than $7,500; this percentage is also typical of the non-homebase study area counties. On the other hand, the homebase counties have nearly twice as many households earning under $7,500 as the U.S. as a whole. Obviously, the homebase migrant areas are significantly below the U.S. economic standard. Low per capita incomes and high percentages of households earning less than $7,500 characterize the homebase migrant population in the study areas as an economically vulnerable population.

A demographic and economic profile emerges which characterizes homebase migrant farmworkers. The profile is typical of a society or culture in an infectious disease cycle. Further, the profile suggests that a secondary

chronic disease pattern will emerge as additional demographic characteristics are examined. The overall profile may be characterized in the following manner:

- High proportion of migrant and seasonal farmworkers as a percent of total population.
- Extremely high percent Hispanic population.
- Low median age (younger population).
- Very high percent of population under age 15.
- Percent of population age 65 and over low but showing minor increases.
- Fast population growth expected.
- Very low per capita income.
- High percent households earning under $7,500.
- Low educational level.
- An economically disadvantaged population.

These characteristics define a profile of a population which is vulnerable and needs major improvement in the quality of life. The profile is quite typical of an infectious disease cycle. In the next section the community health status of migrant areas will be examined.

Community Health Status

This aspect of the analysis provides information about the health status of the population in the communities where migrant and seasonal farmworkers live. The results are aggregated to describe groups, and it cannot be inferred that any one individual within the group would have the combination of problems or characteristics identified for the entire group. An ecological analysis offers a description of the community and generates potential hypotheses as to the reasons for the problems identified.

Quality of Life

Disease patterns in a population are linked to quality of life. The homebase migrant study areas represent a quality-of-life profile of a population which faces difficult and complex problems. Each of the three counties (Cameron, Hidalgo, and Willacy) is dominated by household groups which are among the poorest rural areas in the country. For example, the percentage of households designated through cluster analysis as "Hard Scrabble" * is 58.14%, 28.5%, and 11.0% for Willacy, Hidalgo, and Cameron counties respectively. Based on a rank order of forty different neighborhood designations, Hard Scrabble ranks 39th—only public assistance neighborhoods rank lower.

In addition, the migrant homebase study areas are characterized by low median income, low median home value, low percent college graduates, and an overall low quality of life rating. Generally, their income is half to one-third that of the U.S. as a whole. For example, the median income for Hard Scrabble neighborhoods in Cameron county is $12,874, compared to the U.S. value of $24,269. Median home values for these counties compared to the general U.S. show the same pattern. The percent of college graduates falls well below the U.S. level. In Cameron county, for instance, only 6.5% of the population are college graduates, while the U.S. percentage is 16.2% (1989).

Major Diagnostic Groups

There are major differences between the homebase migrant areas and the non-homebase areas for the major disease categories. In Indiana (ten counties) only two disease categories out of a possible 230 are significantly above the U.S. index. Michigan (five counties) has two disease categories significantly different from the U.S. For instance, Van Buren, Ottawa, and Berrien counties (Michigan) are higher for "Newborn and Other Neonates with Conditions Originating in the Perinatal Period" by 8%, 4% and 2% when indexed to the U.S. average. For Kalamazoo county, Michigan, the other disease category ("Pregnancy, Childbirth, and the Puerperium") is 3% above the U.S. (Figure 1).

Figure 1 demonstrates some very basic differences in terms of which disease patterns dominate. The diseases which predominate in Willacy county (a homebase area) are typical of a young population, and thus reflect an infectious disease cycle. On the other hand, Jay county (a non-homebase area) is dominated by a disease pattern typical of an aging population and a chronic disease cycle. These differences are notable since throughout this analysis these patterns persist. Results of this nature allow planners and policy makers to develop appropriate pro-

* *The term "Hard Scrabble" is an old phrase meaning to scratch a hard living from hard soil. Hard Scrabble neighborhoods represent our poorest rural areas, from Appalachia to the Ozarks, Mexican border country, and the Dakota Bad Lands. Hard Scrabble leads all other clusters in concentration of adults with less than eight years of education, and trails all other clusters in concentration of working women.*

The other dominant cluster groups identified in this study are defined as follows: 1) "Agri-Business" is geo-centered in the Great Plains and mountain states. These are, in good part, prosperous ranching, farming, timber, and mining areas. However, the picture is marred by rural poverty—from the Dakotas to Colorado—where weather-worn old men and a continuing youth exodus testify to hard living; 2) "Heavy Industry" is much like "Rank & File," nine rungs down on the socioeconomic scales and hard-hit by unemployment. It is chiefly concentrated in the older industrial markets of the northeastern U.S. quadrant and is very Catholic, with an above-average incidence of Hispanics. These neighborhoods have aged and deteriorated rapidly during the past decade. There are fewer children and many broken homes; 3) "Hispanic Mix" describes the nation's Hispanic barrios and is therefore, chiefly concentrated in the major markets of the Mid-Atlantic and West. These neighborhoods feature dense, row-house areas containing large families with small children, many headed by single parents. They rank second in percent foreign-born and first in short-term immigrant residents, and are essentially bilingual neighborhoods.

Neighborhood clusters are the end result of complex statistical techniques which employ U.S. census data plus many additional types of consumer data to uncover the latent structure of these natural social groups. This method enables us to define and locate all similar communities wherever they may occur in the U.S., and to assign them to homogeneous clusters. These clusters exhibit vivid, predictable behavior patterns toward products, services, media, and promotions. Moreover, because all these data can be correlated by cluster and then projected back into local market configurations, the marketer can target the neighborhood level and thereby increase leverage, efficiency, or both. Every neighborhood in the nation has been computer-assigned to one of forty clusters at the county, zip code, tract, and block group levels. These "prizm" clusters are produced and copyrighted by Claritas Corporation.

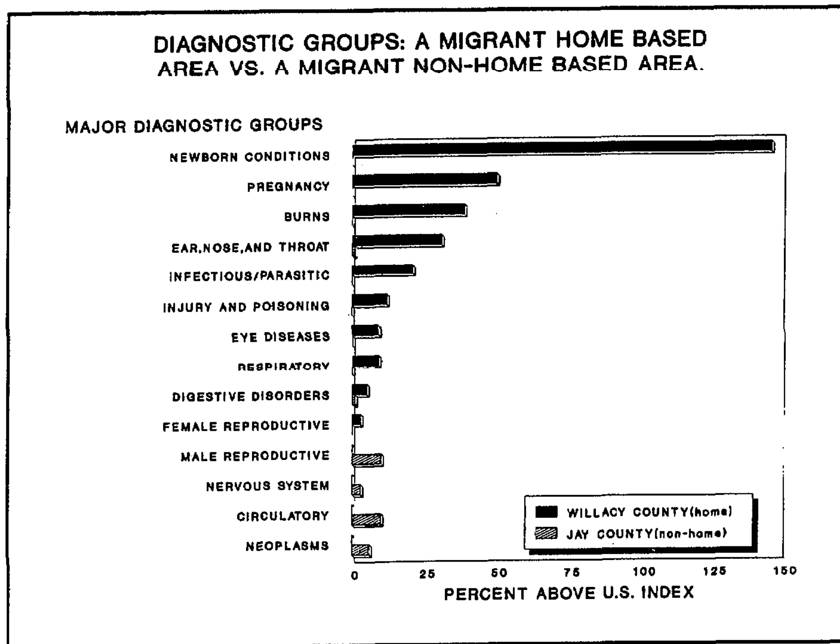


Figure 1

grams which will improve the health status of the migrant population.

The migrant homebase study areas present a disease profile which is significantly different from the non-homebase areas and the United States as a whole. For the state of Texas (the location of the three homebase study area counties) there are four disease categories above the U.S. average. They are 1) "Newborn and Other Neonates with Conditions;" 2) "Pregnancy, Childbirth and Puerperium;" 3) "Burns;" and 4) "Disorders and Diseases of the Ear, Nose and Throat." In contrast to the non-homebase study areas, the homebase areas have significantly more problems and problems of greater magnitude.

All three study area counties have the following problems which are significantly above the U.S.: 1) "Newborn and Other Neonates with Conditions;" 2) "Pregnancy, Childbirth and Puerperium;" and 3) "Disorders and Diseases of the Ear, Nose and Throat." Additionally, "Burns;" "Infectious and Parasitic Diseases;" and "Disorders and Diseases of the Respiratory System" are well above the U.S. average for one or more of the study area counties.

To determine if the patterns displayed in the homebase areas are representative of the migrant population specifically or just of the Hispanic south Texas population, a control group of counties was identified. The purpose of identifying the control group was to compare the health status of the study area to a control group area. The control group concept was introduced to test the hypothesis that the Hispanic migrant and seasonal farmworker population differs from the Hispanic population *per se*. The control group was matched on several social and economic characteristics, except that the control group had no migrant population. The control group counties were selected by matching as closely as possible the following criteria: 1) >50% Hispanic, 2) >20% of households with income <$7,500, 3) >25% of population <15 years of age, 4) median age range +/- 4 years, and 5) similar socioeconomic status. Using the National Planning Data Corporation on-line data system, we selected two counties (San Miguel county, New Mexico and Culberson county, Texas) which met the criteria but which did not have a migrant farmworker population.

A comparison of two study area counties (Cameron and Willacy) to the two control group counties for the most common diagnostic disease categories reveals major differences. None of the disease categories for the control group counties are significantly above U.S. rates. On the other hand, five disease categories for Cameron county and three categories for Willacy county are significantly above the U.S. average (Figure 2). Thus, it can be stated that the identified problems are specific to the migrant population.

Community Health Summary

This study focused on farmworkers in the midwestern migratory stream. Although the data was not cross-tabulated to track individual workers, data was collected for workers both in their homebase area in Texas and in the upstream areas where they work. Access to health care services tends to be more limited in migrant homebase areas than in non-homebase areas due to the concentration in homebase areas of other potential clinic users who compete with farmworkers for access to services. Because the data indicate that the differences between farmworker health status and that of the general U.S. population is more pronounced for workers in their home areas than for those working upstream, this monograph concentrates scrutiny on data from the homebase study area counties. However, the final study report presents data from all of the study area counties, including both homebase and non-homebase areas.

The quality of life in these homebase areas is characterized by low socioeconomic status—some of the poorest rural areas in the nation, low median income, low median home value, and low percent college graduates. The disease problems in these areas are mostly infectious and specific to the migrant population. The major diseases suffered by the migrant population are conditions in newborns and neonates; infectious and parasitic diseases; burns; disorders of the ear, nose and throat; and injury and poisoning. These problems are typical of the infectious disease cycle. In addition, the exhibited demographic pattern and the poor socioeconomic status also underscore the fact that the migrant population is victimized by an infectious disease cycle. However, as noted earlier, a chronic disease cycle is also

emerging. Chronic disease problems are also prevalent in the migrant population. Subsequent analysis of the migrant-specific program data will reveal the emergence of this chronic disease cycle.

Program Health Status

For the purpose of this study, community health status analysis of migrant and seasonal farmworkers is specific to migrant homebase communities. In contrast, program health status analysis is specific to the migrant workers who visited the surveyed migrant health centers during the study period.

The program data was compiled from 6,969 patient counters, and is specific by diagnosis, age and sex for the four surveyed migrant health centers. The twenty most common principal diagnoses are detailed for nine age groups by sex. All diagnoses were coded according to ICD-9-CM categories.

One objective of the program health analysis was to identify potential clinical indicators which would be appropriate for migrant farmworkers in each age group. However, the identification of clinical indicators for some age groups is more difficult since accumulating a majority of clinic visits will require the inclusion of more than the top ten most common reasons for visiting migrant health centers. A large percentages of visits which are categorized as "Other" would indicate that significant variation in health problems is encountered for that age group.

All Ages

Table 1 presents data on all age groups for males and females. Although this data may have limited use for the development of clinical indicators, it does demonstrate the overall major reasons for visiting migrant health centers. The top three male conditions are: 1) health supervision of infant/child, 2) otitis media, and 3) diabetes. The top three female conditions are: 1) diabetes, 2) pregnancy, and 3) health supervision of infant/child. Perusing the list of the top twenty problems gives no surprises. Typically, the principal common diagnoses are dominated by infectious and chronic disease problems. Additionally, environmental conditions are represented by such disorders as dermatitis and respiratory problems.

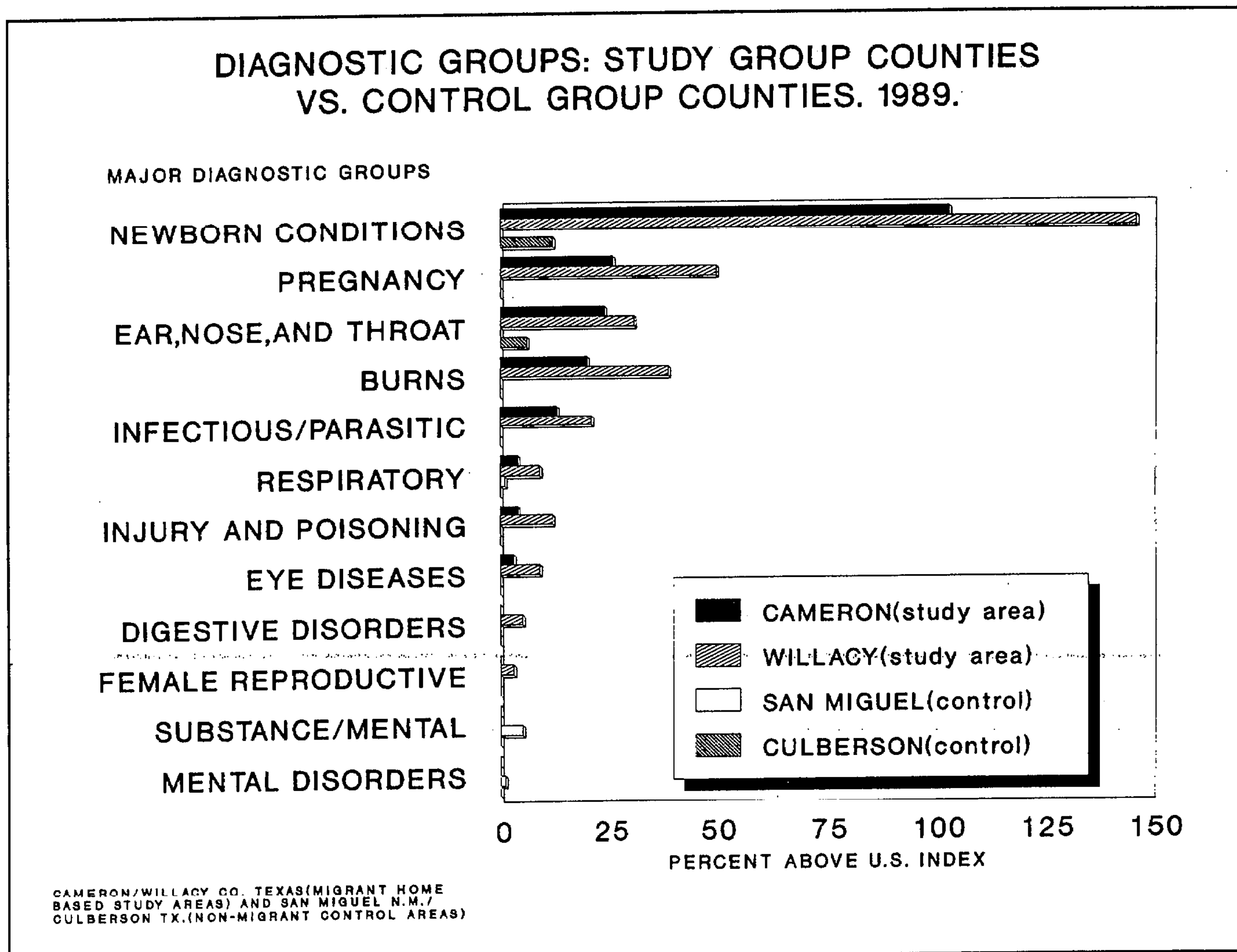


Figure 2

Most Common Principal Diagnoses in Migrant Health Clinics,[1]
Number and Percent, By Sex, All Ages, 1986-87

Rank[2]	Diagnosis[3]	Code	Male #	Male %	Female #	Female %	Total #	Total %
1	Diabetes Mellitus	250.	172	6.6	408	9.3	580	8.3
2	Health Supervision of Infant or Child	V20.	227	8.7	245	5.6	472	6.7
3	Otitis Media, Suppurative and Unspecified	382.	214	8.2	200	4.6	414	5.9
4	Normal Pregnancy	V22.	0	0.0	396	9.0	396	5.6
5	Upper Respiratory Infection, Acute	465.	151	5.8	164	3.8	315	4.5
6	Essential Hypertension	401.	121	4.7	177	4.1	298	4.2
7	Consultation Without Complaint or Sickness	V65.	69	2.7	126	2.9	195	2.8
8	Hard Tissues of Teeth Disease	521.	78	3.0	106	2.4	184	2.6
9	Contact Dermatitis and Other Eczema	692.	77	2.9	80	1.8	157	2.2
10	Common Cold	460.	0	0.0	142	3.3	147	2.1
11	Conjunctivitis, Acute	372.	61	2.4	81	1.9	142	2.0
12	Strep Throat and Scarlet Fever	034.	61	2.4	64	1.5	125	1.7
13	Inflammatory Disease of Cervix, Vagina, or Vulva	616.	0	0.0	117	2.6	117	1.6
14	Anemia, Unspecified	285.	46	1.8	69	1.5	115	1.6
15	Viral Infection, Unspecified Site	079.	43	1.7	66	1.5	109	1.5
16	Pharyngitis, Acute	462.	47	2.8	59	1.3	106	1.5
17	Urethra and Urinary Tract Disease	599.	0	0.0	84	1.9	105	1.5
18	Gastroenteritis and Colitis, Non-Infectious	558.	48	1.9	0	0.0	99	1.4
19	General Medical Examination	V70.	40	1.5	59	1.3	99	1.4
20	External Ear Disorders	380.	45	1.7	0	0.0	92	1.3
21	Other		956	36.8	1622	37.0	2702	38.7
	TOTAL		2596	100.0	4373	100.0	6969	100.0

1 The migrant health clinics included in this study area are: Migrant and Rural Community Health Association (Michigan), Indiana Health Centers (Indiana), Hidalgo County Health Care Corporation (Texas), and Su Clínica Familiar (Texas).

2 Rank is based on total patients (6,969), all ages. A value of 0.0 indicates the item was not ranked in the top 20.

3 Diagnostic classifications are based on the ICD-9-CM categories.

Table 1

Figure 3 displays the top ten diagnoses for all ages (male and female) visiting migrant health clinics.

Age Group <1 (Infant)

Six of the top twenty diagnoses for this age group are "V" codes, or health maintenance visits. This suggests that prevention is a major component in the migrant health centers for this age group. In fact, almost 50% of all visits for this age group are for health maintenance. "Health Supervision of the Infant" (Code V20) accounts for 29.3% of all visits. Visits related to an infectious disease process account for 27.4% of all visits. Other principal reasons for clinic visits are nutritional (4.5%) and digestive and respiratory problems; the "Other" category accounts for 9.3% of all visits. The top five diagnoses account for approximately 65% of all visits to migrant health centers for males, females and total population under age one. The top five reasons for visiting migrant health centers for age <1 (male, female, total) are: 1) health maintenance, 2) active upper respiratory infection, 3) consultation without complaint or sickness, 4) otitis media, and 5) single birth (newborn visit). The development of clinical indicators for this infant migrant population should focus on these conditions (representing 65% of all visits) as potential for measuring outcomes.

Age Group 1-4 (Pediatric)

The pattern of visits for this age group is similar to that of the <1 age group. Specifically, the dominant reason for a visit is health supervision (20.7%). The second most common reason for a visit is otitis media (17.0%). This age group had about a 5% increase in otitis media compared to the age group <1. As with the age group <1, the dominant disease pattern is infectious and nutritional. For instance, reviewing the top ten reasons for visiting migrant health clinics, four are infectious, two are nutritional, and two are preventive visits. This pattern is typical of the infectious disease cycle. The "Other" category accounted for 18.6% of clinic visits. Since the top five

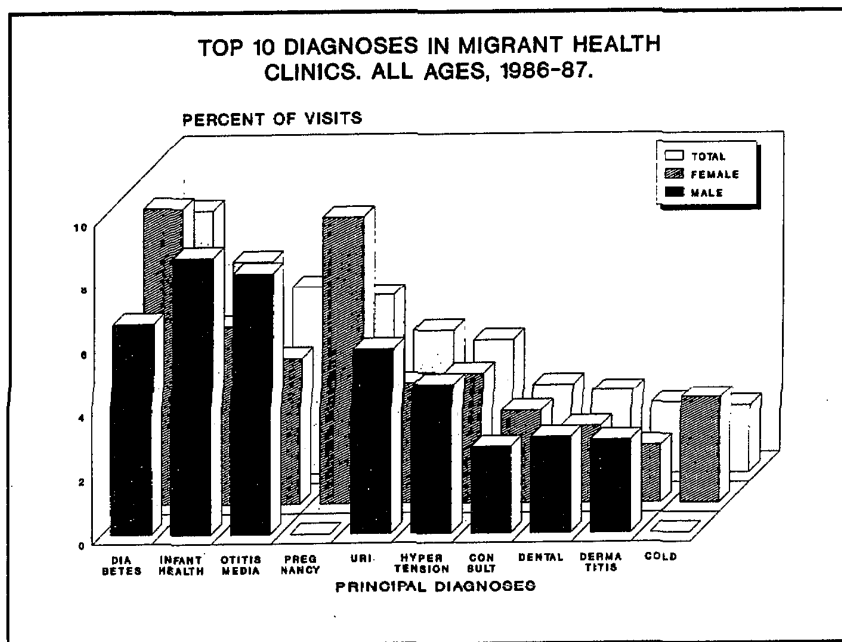


Figure 3

visits dominate (57.1% of all visits) for this age group, they should become the major diagnoses to measure and thus, develop clinical indicators for the migrant health data system.

Age Group 5-9 (Pediatric)

This age group also has health supervision and otitis media as the top two reasons for visiting the migrant health clinics. However, for this group otitis media ranks first. The distribution of the top ten diagnoses is not dominated by any one category as was seen in the previous age groups. For example, only 36.7% of all visits are accounted for in the top five conditions, about half the value of the previous two age groups. The addition of the top ten visits results in 52.4% of all clinic visits. At this age group we begin to see the appearance of dermatological and parasitic problems. However, as with the two previous age groups, the infectious disease cycle still dominates. For this age group, 26.2% of all visits are categorized as "Other."

Age Group 10-14 (Pediatric)

The distribution of the twenty most common principal diagnoses for this age group represents a rather diffuse situation. The range from the most common problem to the least common problem is only 4.6%. Further, the range for the top five problems is only 1.1%. This narrow range presents some difficulty in selecting pertinent clinical indicators. The fact that four or five conditions do not dominate this age group further exacerbates the issue of selecting appropriate clinical indicators. Of all age groups studied in this report, this age group is by far the most difficult for which to chose outcome measures.

Of the 6,969 visits (all age groups), this age group represents only 6.1%. The "Other" category represents 39.0% of all diagnoses. The number one condition for this age group is dental problems, with a percentage almost twice as high in the male population. This is the first time dental disease appears and it is the number one problem for males. For females the number one problem is acute conjunctivitis. This age group visits clinics very seldom for health maintenance visits—only 4.6% of all visits. Contact dermatitis is the second most common problem for both males and females. The top twenty problems may be readily grouped into the following conditions: 1) infectious diseases, 2) respiratory problems, and 3) work-related conditions (such as contact dermatitis, parasitic disease, sprains and strains, and injury). This is the first age group where we begin to see an abundance of conditions which could be associated with typical migrant working conditions. The problems encountered by this pediatric group are very typical of the infectious disease cycle.

The comparison of the top ten diagnoses for the four age groups that have been discussed thus far is depicted in Figure 4. Clearly, the latter group (age 10-14) does not exhibit a pattern, which suggests the clinical indicators would be defined based on the magnitude of visits for the first three or four conditions. Possibly the groups 1-4, 5-9, and 10-14, which represent the pediatric population, could be considered as a single group for purposes of defining clinical indicators. This will be discussed later.

Age Group 15-19 (Adolescent)

Some significant changes begin to occur for this age group in the distribution of the most common principal diagnoses. Normal pregnancy becomes the number one reason for visiting a migrant health clinic, representing 16.5% of all visits for females. Dental disease begins to increase in importance as a reason for visiting migrant health centers for both males and females, and represents 6.3% of all visits. A troubling trend begins to emerge for females at this age group: diabetes is the third most common reason for visiting the clinics (4.6%). Males in this age group did not have any visits for diabetes. Another interesting and important trend is that six diagnostic codes are of the "V" type, indicating health maintenance visits. This suggests that at this age group prevention and/or health maintenance is very much a part of the protocol at migrant clinics. Common to other age groups and representing the infectious disease cycle, there are seven diagnostic codes which are indicative of an infectious etiology.

This age group (15-19) represents 8.6% of all visits in the surveyed migrant health centers. The top twenty problems represent 53% of all visits, which means approximately 47% are categorized as "Other." This is the largest "Other" group of any of the age

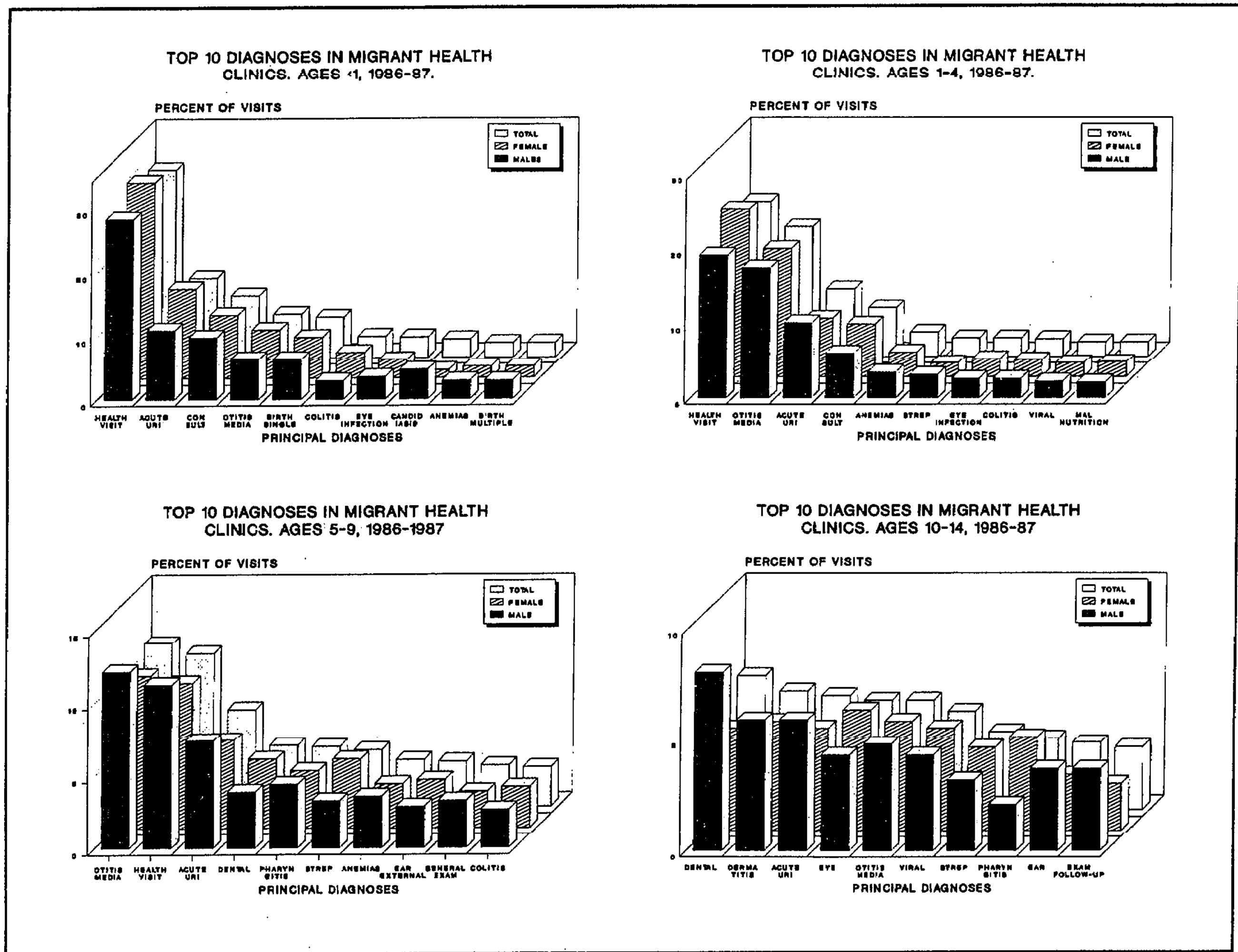


Figure 4

groups investigated. This suggests that significant variation in health problems is encountered. The top five problems—normal pregnancy, dental disease, cold, diabetes, and dermatitis—represent 28.5% of all clinic visits for this age group. Certainly for females, clinical indicators must be reflective of pregnancy, diabetes, and infectious disease. On the other hand, for males, dental disease, dermatitis, and infectious disease problems must be considered as the major indicators for this age group. The first two diagnoses, dental disease and dermatitis, represent 16.5% of the visits. Additionally, these and other diagnoses experienced by the males in this age group are quite typical of a poor working environment. Examples of these problems include dermatitis, respiratory infections, and other respiratory problems.

Age Group 20-29 (Adult)

This age group (both males and females) is the second most frequent user of migrant health clinics (18.0%); for females only it is the most frequent user (14.0%). For females the major diagnoses are 1) pregnancy, 2) diabetes, 3) cold, 4) cervix, vagina and vulva inflammatory disease, and 5) special exams. These five problems represent 48.6% of all problems. The five most common principal diagnoses for males are 1) dermatitis, 2) strep throat/scarlet fever, 3) dental disease, 4) dermatophytosis, and 5) urethra and urinary tract disease. These five problems account for 23.4% of all clinic visits. Based on the analysis of this data, the development of clinical indicators for females should be straightforward; for males clinical indicator definitions seem to be less clear.

A shift in disease patterns occurs at this age. The infectious disease cycle typical for the ages under 20 is now being replaced by chronic and environmentally related problems. The male visits are quite typical of environmental problems and the females experience problems related to the chronic disease cycle. The concentration of problems occurs among the top five for women, but for males the concentration is much less. Further, very few males in this age group visit clinics. They represent only 4.0% of total visits.

Age Group 30-44 (Adult)

At this age group chronic diseases dominate the top five problems. Specifically, diabetes, hypertension, and back problems are chronic problems exhibited by males and females. Respectively for males and females, these chronic problems represent 16.9% and 18.8% of all visits for this age group. Also, for the first time arthropathies appear as a problem in the top twenty diagnoses. The other major set of problems which dominate this age group are environmental (for instance, back problems, contact dermatitis and other eczema, respiratory problems, and external ear disorders). Interestingly, infectious diseases still represent a significant problem (common cold, upper respiratory infection, and viral infections). Thus, although this age group is dominated by chronic disease problems, infectious and environmental problems are still significant. The focus of development for clinical indicators for this age group should be directed toward two major areas: 1) chronic disease problems, which are represented in both sexes, and 2) for females, pregnancy (perinatal conditions). As noted in the 10-14 age group and as well for this age group, the distributional patterns of the top twenty diagnoses are quite diffuse. Therefore, defining outcome measurements in terms of clinical indicators becomes somewhat more difficult.

Age Group 45-64 (Adult)

The conditions or problems experienced by this age group are clearly chronic and related to the aging of the population. The top five problems represent 50% of all visits and are dominated by diabetes, hypertension, arthropathies, and soft tissue disease. This pattern is very typical for females, while some minor variances exist for males. For instance, back problems and dermatitis are among the top five diagnoses; these are environmental or work-related problems. The second top five problems are, however, dominated by environmentally-related conditions for both males and females. The proportion of visits is significantly less, but nevertheless a shift occurs from the top five chronic disease diagnoses. The bottom ten problems are dominated by infectious codes and a few typical lifestyle categories (i.e., obesity, dental, and mental disorders). This age group represents approximately 15% of all visits to migrant health clinics.

Two problems dominate the top ten principal diagnoses for this age group;

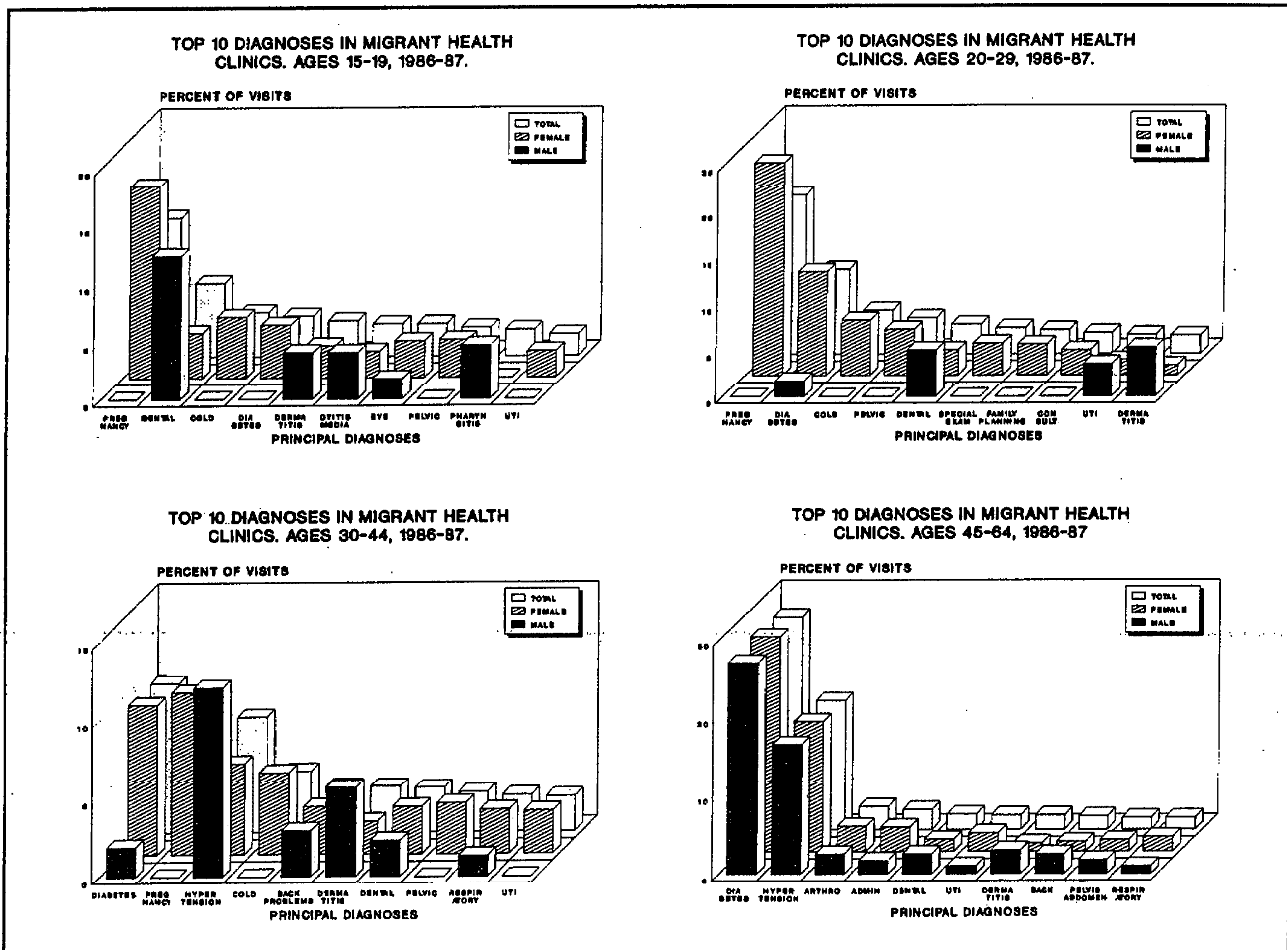


Figure 5

thus, outcome measurement would be most appropriate for the principal diagnoses of diabetes and hypertension. Although other problems are presented, their magnitude does not dictate the development of a comprehensive set of clinical indicators. However, indicators representing broad categories such as infectious or environmental might be appropriate to develop. Figure 5 compares the last four age groups analyzed. The dominance of problems in the top five categories is best portrayed by the age group 45-64.

Age Group >64 (Geriatric)

This age group represents only 1.5% of all visits to migrant health centers. Of the 6,969 visits were made to four migrant health centers during the study period, only 107 visits were made by individuals age 65 and over. Overwhelmingly, diabetes and hypertension accounted for the major problems (70%). Since the numbers are so small for problems represented by the 18 other categories, the discussion of such would be of little statistical value due to significant variation. However, the development of outcome measures should pose very little difficulty because the two major problems represent 70% of all problems. Therefore, this age group presents the most clear direction for outcome measurement.

Program Health Summary

Program health status data must serve as our major source for the development of clinical indicators by life cycle. The analysis of the data by the nine age groups has revealed significant variations in disease patterns (i.e., reasons for visiting migrant health clinics) which can be used as a major input to the identification of appropriate areas for measuring outcome. For those age groups where the problems concentrate in the top five categories, the development of clinical indicators to measure outcome should be relatively straightforward. Thus, in this analysis the age groups <1, 1-4, 5-9, 15-19, 20-29, 45-64, and over 64 are typical of this pattern (i.e., where the top five diagnoses make up a major portion of all visits). The two potentially most difficult groups for which to develop clinical indicators, based on this analysis, would be the 5-9 and 30-44 age groups. In any event, the development of clinical indicators in migrant health centers must incorporate the results of the program health status analysis.

Migrant Clinics and the National Ambulatory Medical Care Survey

Another perspective to evaluate in order to understand the health status of migrants is the relationship of migrant-specific data (obtained from 1986-87 survey of four migrant centers) to the National Ambulatory Medical Care Survey data (NAMCS, 1985), which is sample survey data representing ambulatory care in the U.S.

The age distribution of the populations visiting these settings is quite different. For males and females under age 15 there is a 2-to-1 ratio of visits for migrant workers compared to the NAMCS population. Thus, migrant clinics see twice as many children under age 15 than do ambulatory care settings in the U.S. as a whole. The only other group where migrant clinics see more patients than the ambulatory care setting is females aged 15-44. Probably the most significant difference occurs at the 65 and over age group. Only 0.8% (males) and 0.7% (females) of total visits are represented by this age group in the migrant clinics, whereas the respective percentages for the national ambulatory care setting are 8.0% and 12.5%.

These age distribution characteristics agree with the previous community health status analysis, where migrant health clinic visits are dominated by younger age groups and the elderly are sparsely represented. Further, the typical demographic profile of the homebase migrant worker is one of a much younger population and one in which the elderly population is under-represented compared to the U.S. population. The predominance of visits to migrant clinics by younger ages and to U.S. ambulatory care settings by older ages is striking.

The male/female ratio of visits for migrant farmworkers visiting migrant health clinics for the age groups <1, 1-4, 5-9 and >64 are almost equal to one. Females in the age groups 15-19, 20-29, and 30-44 outnumber males dramatically in their use of services. Also, females in the 45-64 age group visit 1.5 times more frequently than males. The highest use of services by age group for males is the 1-4 and 45-64; for females the highest use is in the 20-29 and 30-44 age groups. This use pattern is similar to that found in the NAMCS data. The age groups with the lowest use of health services are >64 and <1 for males, and >64, <1, and 10-14 for females.

Principal Diagnoses—Migrant Health Clinics vs. NAMCS

The top twenty most common principal diagnoses in migrant health clinics were compared with the NAMCS data. Of the top twenty diagnoses in migrant health clinics, only eight were represented in NAMCS data. Thus, visits related to twelve diagnoses in migrant health clinics did not appear as visits in the NAMCS data. Typical diagnoses not appearing in the NAMCS data were infectious (cold, acute conjunctivitis, strep throat/scarlet fever, and viral infections), nutritional (anemias, gastroenteritis, and non-infectious colitis), and occupational (contact dermatitis and eczema).

The eight diagnoses which did appear as visits in both clinical settings were substantially different. Seven of the eight principal diagnoses for visiting health centers were dramatically higher in the migrant health clinics. Thus, diabetes (the number one reason for visiting a migrant center) was 338% above the U.S. average (where the U.S. was set to equal 100). Other principal diagnoses which were significantly above the U.S. were health supervision of infant or child (151% above), otitis media (138% above), normal pregnancy (49% above), acute upper respiratory infection (97% above), and dermatitis (150%). Additionally, visits related to hypertension were 4% above the U.S. average (Figure 6).

Analyzing the principal reasons for visiting health clinics does not provide a measure of the prevalence or incidence of a disease. Clearly, the denom-

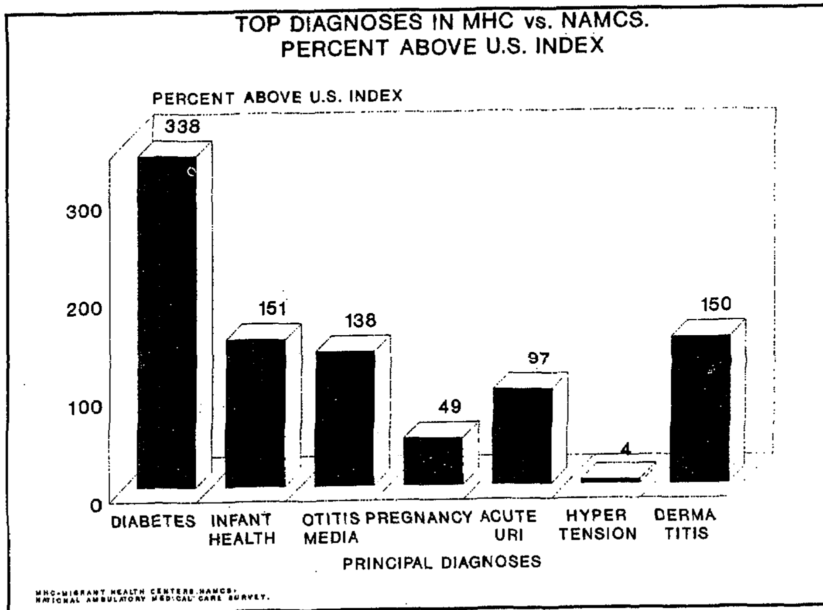


Figure 6

inator is not the population at risk, but is the total number of visits made by the population during the specified period. Thus, for any one principal diagnoses there is a proportional morbidity ratio (i.e., what percent of total clinic visits is made for each specific diagnosis or morbidity to the clinic?). Such a ratio does not give true risk, since the population at risk for each event is unknown. However, the ratio does tell us the relative ranking of each type of visit based on total visits, and can be compared to similar ratios in other settings.

The utilization differences between clinics could be confounded by the underlying characteristics of the population, and may not be indicative of significant differences between the two groups. The analysis in the community section of this report underscored the major demographic differences between the migrant population and the general U.S. population. Understanding these differences allows us to make some general statements about this comparison of migrant-specific data and the NAMCS data.

In summary, utilization rates by principal diagnosis show significant variations between migrant farmworkers and the general population. Farmworkers do visit clinics more frequently (well above the U.S. population) for eight conditions, and they visit for infectious, nutritional and occupational reasons which do not even rank in the top twenty conditions for the general U.S. population. Farmworkers do have different problems; farmworker visits exceed the visits by the general population for many common principal diagnoses. Therefore, these results are important to the overall understanding and interpretation of migrant-specific problems.

Co-Morbidity Patterns

This report has for the first time documented the prevalence of co-morbidities among farmworkers who visit migrant health clinics. The prevalence of co-morbidity at the time of death for the general population has been researched extensively. For example, R. A. Israel reported that more than one cause of death was reported in 35% of deaths in 1917; the percent increased to 60% in 1955 and to 73% in 1979. Using National Health Interview Survey data, Rice and LaPlante about 1.4 chronic conditions reported in 1969-71 and about 1.6 in 1979-81 for each person 65 years of age and older who had limited activity. Recently, an Advance Data report indicated that 48.8% of the population over 60 years of age had more than one morbidity. In fact, 25.9% of the population had two or more, 14.6% had three or more, and 6.0% had four or more co-morbidities. The nature of co-morbidity problems for age groups under than age 60 is not documented. Therefore, the co-morbidity patterns revealed in the migrant population cannot be compared to national data for ages under 60 years. However, the frequency of co-morbidity patterns for migrant farmworkers above and below 60 years of age will convey information about their degree of illness.

Over forty percent (43.9%) of all farmworkers who visited migrant health clinics had more than one morbidity. The percentage of males with more than one morbidity is 40.6%; for females the percentage is 45.8%. The age groups with the highest percentage of co-morbidities are the <1, 1-4, and >64 groups. The respective co-morbidity averages are 2.3, 2.0, and 1.9. The average number of co-morbidities for all age groups was 1.7. The co-morbidity patterns for males and females are similar to the total pattern. Thus, for males and females the three age groups with the highest percentages of co-morbidities are <1, 1-4, and >64. The respective percentages for males are 63.0, 54.8, and 50.0; for females the respective age group percentages are 61.2, 53.6, and 59.2. The male age group with the fewest co-morbidities is 15-19 and the corresponding female age group is 10-14.

Of the 6,969 migrant patients who visited the clinics, 3,057 had more than one morbidity, producing 5,066 additional morbidities. Generally, the initial morbidity category also produced the largest number of co-morbidities. For example, "Diseases of the Respiratory System" ranked number two for initial morbidity seen at the migrant clinic while the presenting co-morbidity was also coded as "Diseases of the Respiratory System." Apparently, one respiratory problem produced a second one or a third. It would not be unusual to see initial and subsequent morbidities group within a system category. On the other hand, several variations did occur. For instance, infectious and parasitic diseases, the

fifth most common initial morbidity for the total migrant population, produced a rank of ten for infectious and parasitic diseases as the co-morbidity. The number one ranking co-morbidity for farmworkers who had an initial ICD code of "Infectious and Parasitic Disease" was "Diseases of the Respiratory System." Another example would be "Endocrine, Nutritional and Metabolic Disease and Immunity Disorders." This category ranked fourth as the initial morbidity, but the number one ranking co-morbidity for this code was "Diseases of the Circulatory System."

The co-morbidity patterns observed in this migrant population suggest a most vulnerable group, with significant co-morbidities that have the ability to produce substantial disability. Our only basis for comparison to national data is for those over age 60; for this age group the farmworker population has comparable problems and numbers of co-morbidities. The analysis of the other age groups shows that a significant number have co-morbidities, ranging from approximately 30% to 60% of the population in each age group. Possibly the delay in seeking care, unavailability of care, lack of access to care, potentially appalling working conditions, lack of perceived illness, transitory nature of farm work, and need to work at all costs in order to survive are critical reasons for the poor health status of the migrant population. Whatever the reason for not visiting the health clinics, the outcomes are clear—multiple morbidities representing a population with poor health status that may need significantly greater care and more treatment due to the delay in receiving initial care. Of course, primary prevention will have the most benefit and, as noted previously, this is practiced when and where feasible.

Clinical Indicators

Several approaches must be considered in the development of clinical indicators for migrant health centers. In this report, the demographic analysis, community health status information, migrant program-specific data, comparisons of data to national surveys, and patterns of co-morbidity have all enhanced our understanding of migrant health problems and have underscored the need to develop outcome measures specific to migrant

Clinical Indicator Recommendations for Migrant Health Centers by Age Group and Life Cycle

Target Condition[1]	<1	1-4	5-9	10-14	15-19	20-29	30-44	45-64	>64
Anemia	✓	✓							
Otitis Media	✓	✓	✓	✓					
Gastroenteritis/Colitis	✓	✓							
Well Baby Care (Supervision)	✓	✓	✓						
Immunizations	✓	✓							
Upper Respiratory Infection	✓	✓							
Strep Throat		✓	✓	✓	✓	✓			
Parasitic Disease			✓	✓					
Dermatitis/Eczema				✓	✓	✓	✓	✓	✓
Pregnancy					✓	✓	✓		
Diabetes					✓	✓	✓	✓	✓
Female Reproductive Problems					✓	✓	✓		
Hypertension							✓	✓	✓
Arthropathies								✓	✓
Infections (Conjunctivitis, URI, Strep, Scarlet Fever, Viral, Cold, Otitis Media)	✓	✓	✓	✓	✓	✓	✓	✓	
Respiratory									✓
Digestive									✓
TOTAL BY AGE GROUP (LIFE CYCLE)[2]	7	8	5	5	6	6	6	5	6

[1] Target conditions which represent approximately 40% to 70% of all diagnoses in migrant health clinics. Additionally, the conditions represent the majority of high risk problems as defined in the community health status assessment.
[2] Number of clinical indicators by life cycle is: Perinatal (7), Pediatric (10), Adolescent (6), Adult (8), Geriatric (6).

Table 2

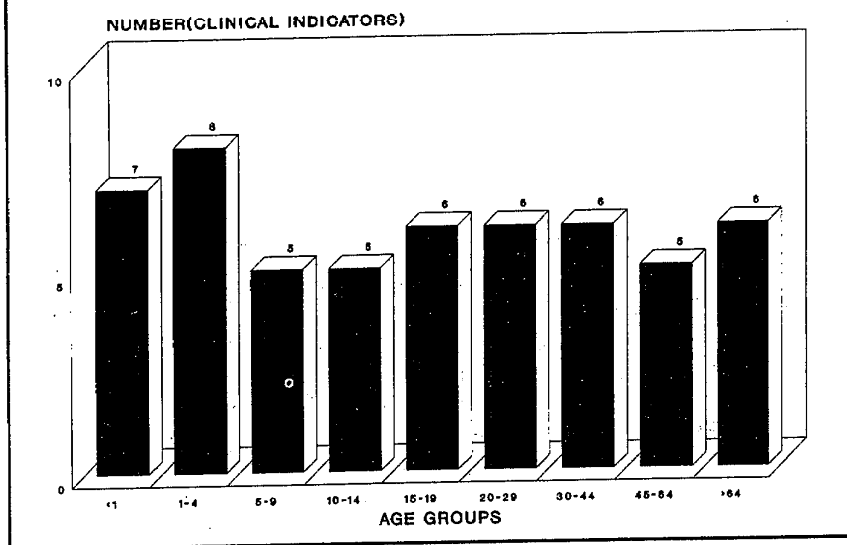


Figure 7

health centers. The measurement of outcome must be defined by a set of clinical indicators which are comprehensive and responsive, and yet do not burden those who must collect the information. Each previous section of this report suggested recommendations. The intent of this section on clinical indicators is to further develop and refine our understanding of the basic clinical problems encountered by migrant farmworkers, and to determine which clinical problems (i.e., most common principal diagnoses) warrant the development of clinical indicators.

A literature review of major medical problems encountered by the migrant population was completed to determine the most frequently occurring diagnoses. Of the four top ranking problems in the literature, three were also among the top problems as determined by this study. In an attempt to group the problems noted in the literature, the health field concept was utilized as a framework. Lifestyle, environment, health care delivery system, and biology became categories into which medical problems were classified.

Criteria for Selecting Clinical Indicators

The review of the literature on clinical indicators revealed 32 criteria which may be important to the selection of clinical indicators (see Gloassary of Terms). Using all of these criteria (some of which overlapped in meaning), a matrix was designed to illustrate the frequency or number of times the criterion was mentioned in the literature as being important to the selection of a clinical indicator. As a result of this analysis, 32 criteria were grouped into five general categories: I) Epidemiology, II) Intervention, III) Data, IV) Management Criteria, and V) Diagnostic Criteria.

Using the detailed analysis reported in this study, a list of specific outcomes by age groups and life cycles are recommended as candidates for development of clinical indicators (Table 2). The framework outlined above for detailing the criteria for developing clinical indicators and the analysis in this report was used to generate the problem lists exhibited in Table 2. These problem lists of most common principal diagnoses are appropriate for the development of clinical indicators for migrant health clinics. Further evidence of what measurements should be collected is demonstrated by the dominance of problems occurring in the top five, ten or twenty diagnoses by age group. Figure 7 provides the dominance statistics for the nine age groups. Overall, 47% of all problems occur in the top ten principal diagnoses (i.e., the principal reason for visiting the health center). The age-specific analysis clearly demonstrates that all but three age groups experience the majority of the problems in the top ten principal diagnoses. Three age groups which do not meet this criterion are the 10-14, 15-19, and 30-44 age groups. Two of these three age groups, 10-14 and 15-19, represent about 14% of all visits to migrant health clinics. The third group (30-44) represents a substantial portion of the visits (16.8%). In this latter case, one recommendation would be to consider the problems represented in the top 20 diagnoses since this encompasses 61% of the principal diagnoses for the 30-44 age group.

The overall recommendation is to have the Migrant Clinicians Network evaluate the lists in the accompanying tables, refine the list, and propose specific indicators which would be acceptable to migrant health centers for collection. Many times, it is not the criteria which are so important or the detailed list of problems which is so critical; what may be the most important issue to the development of clinical indicators would be time availability, cost of collection, acceptability of the concept of outcome measurement, availability of computer technology, size of the migrant health clinic, and clinic staffing. Additionally, migratory patterns make it necessary to collect data longitudinally rather than over a single point in time. As can be deduced, there is the potential for myriad problems which must be acknowledged and addressed before beginning the implementation of any such data collection efforts related to outcome measurement and clinical indicators.

Given the facts presented in the analysis of this study and the criteria analysis for the selection of clinical indicators, it is therefore suggested these conditions should be targets for the development of clinical indicators and outcome measurement. However, as noted, the issues concerning statistics may not be as important as the practicality of the implementation. Accordingly, a dovetailing of these two factors must occur. ❖

Glossary of Terms

Ability to Report Data at Centers: Are all migrant health centers able to correctly record the data?

Acceptable to Clinician: Is the procedure or intervention easily utilized by the clinician?

Accuracy: The degree to which a measurement represents the true value of the condition being measured.

Benefits: Does the intervention positively impact the condition?

Characterizes All Migrant Health Centers: Is the condition or disease found to exist at all migrant health centers?

Common Technique: Is there standard agreement on the intervention or treatment of the condition?

Consistency in Coding Data: Will the health centers use the same code for a condition or disease? The ICM-9-CM coding scheme allows different codes for the same condition.

Cost: Is the cost of the intervention, performance of the test, and recording of results low or within the health center budget?

Data Availability: Will the data collection and extraction be disruptive to the health center?

Ease of Diagnosis: Is the disease well defined and easy to diagnose in both field and clinic settings?

Effectiveness of Intervention: The extent to which a specific intervention does what it is intended to do for a defined population.

Efficiency: Is the effective maneuver being made available to those who could benefit from it with optimal use of resources?

Epidemiology: A field of study concerned with the observation and description of the occurrence, distribution, size, and progression of health and causes of disease and death in a population.

Etiologic Evidence: Is there proof for the cause or origin of the disease or condition?

Functional Impact: Does the disease cause significant impact on the function of patient?

Impact of Care: Is the natural history of the disease or condition sensitive to the quantity or quality of care received by the patient?

Incidence: Are there a significant number of new cases of the condition or disease each year?

Lead-Time Bias: Survival can appear to be lengthened when screening advances the time of diagnosis, lengthening the time between diagnosis and death without any true prolongation of life.

Legality/Liability: Has permission been granted to use patient information from health centers?

Length-Time Bias: Screening sometimes produces a disproportionate number of slowly progressing diseases while missing aggressive cases which are present in the population for only a short time... a missed window of opportunity.

Life Cycles, Consistent With: Can the disease or condition be sorted according to age, sex, and race?

Management Criteria: Medical management of the condition should be well-defined in at least one of the following processes: prevention, diagnosis, treatment, or rehabilitation.

Number of Encounters Per ICD-9-CM: Ability to code patient encounters by Diagnostic Related Groups.

Particular to Upstream Migrant Health Centers: Is the condition or disease only present in the upstream migrant health centers?

Predictive Value: In screening and diagnostic tests, the probability that a person with a positive or negative test is a true positive or true negative. The predictive value is determined by the sensitivity and specificity of the test, and by the prevalence of the condition.

Prevalence: Is a large proportion of the population affected by the condition or disease? Rates should be high enough to permit the collection of adequate data from a limited population sample. Prevalence rate refers to the number of people who have a disease at a particular time (a snapshot or cross-section).

Reliability: Will the test or intervention obtain the same result when repeated?

Risks: Are the hazards to the patient and clinician outweighed by the benefits of a particular intervention?

Sensitivity: Does the examination or test pick up the condition every time (i.e., correctly test "positive")?

Simplicity of Intervention: Does the intervention or test require simple measures or elaborate, time-consuming ones?

Specificity: Does the examination or test correctly identify non-diseased individuals (i.e., correctly test "negative")?

Validity: The degree to which a measurement measures what it purports to measure.

Copyright © 1991 by National Migrant Resource Program, Inc., Austin, Texas.

This study of migrant health status was completed by G.E. Alan Dever of Mercer University, serving as a consultant to the National Migrant Resource Program. Funding for the study was provided by the U.S. Department of Health and Human Services, Bureau of Health Care Delivery and Assistance, Migrant Health Program.

Additional copies of this monograph may be requested from the Migrant Clinicians Network, 2512 South IH35, Suite 220, Austin, TX 78704, (512) 447-0770 voice, (512) 447-1666 fax. For information concerning the full report on this research, contact MCN at the number above.

National Association of
Community Health Centers, Inc.

NACHC 1993 Policy Position
MIGRANT HEALTH PROGRAM

A. The Need for Migrant Health Services

America relies on migrating and local seasonal farmworkers to harvest its labor-intensive agricultural crops. Since the growing season varies with climate, migrants yearly travel from south to north, often across thousands of miles, finishing one crop and moving to the next just as it ripens. Whole families routinely arrive in towns they are not familiar with with no firm employment, no housing (often even after employed) and no certification under government assistance programs -- due simply to their mobility.

The increase in the gap between most Americans and the poorest of the poor over the last twelve years is nowhere more telling than in the lives of migrant and seasonal farmworkers. Pesticide dangers and other environmental exposures, low education levels, exemption from many otherwise common worker protections and isolation due to geography, language and labor force characteristics all combine to prohibit even modest increases in annual income, health status or working conditions for farmworkers.

Study after study has shown farmworker characteristics in many areas to be worse off than almost any others. Although poverty and mobility make national data collection difficult, education levels, presenting diagnoses, job training graduation, and developmental impediments have been documented.

A health care delivery mechanism to serve this community must be a highly trained, occupationally/liguistically/culturally responsive, fiscally buttressed system of primary care clinics benefitting from more resource support than comparable medical service providers in other communities. Fortunately, the Migrant Health Clinic program provides the model and the core for such an effort, but its scope and its resources fall significantly short of the job needed. Where the clinics can be found, farmworkers can be cared for effectively during their brief stay. In other localities, they work through illnesses and injuries -- an emergency room in town an hour away during the work day is seldom a recourse they are able or willing to take.

B. Existing Program Characteristics

The federal Migrant Health Program currently serves over 500,000 farmworkers each year, but it is estimated that 3,800,000 are left in need of care, relying on distant emergency rooms and charity care where it can be found. Often care is delayed or non-existent, resulting in untreated illnesses growing more serious and requiring more complex and costly care. Clinics operate diferent models of care depending on community size and intensity of farm labor in their agricultural areas. Most also serve local community residents, but operate targeted farmworker programs that may include evening clinics in the migrant camps on farms and ranches, educational and other outreach worker programs, and efforts to use the links of the national chain of clinics, in sending medical records along for workers who "travel the stream" each year.

The program serves less than 20% of those in need, and advocacy efforts are stymied by other pressing national priorities -- such as health care reform. However, the extreme poverty and categorical exclusion from public assistance in which so many farmworkers live is totally at odds with basic worker protections in this country and must be addressed directly. Major investment in the Migrant Health Program is a key way to accomplish this.

C. Recommendations for 1993

In the current health policy debate, Migrant Health program efforts are in jeopardy from a number of directions. Annual program appropiations have not kept pace with sister programs. Medicaid, the government's health care program for the poor, poses so many exclusions for farmworkers due to residency and other barriers that they seldom can make use of it. The health care reform fervor currently sweeping through Washington is broadly focused, leaving farmworkers and other underserved groups in grave danger of once again being overlooked by those oriented to the needs and ability-to-pay of the middle-class, not the nation's harvesters.

Action is needed on Appropriations, Medicaid and Health Care Reform simultaneously. Major improvements in access to care for farmworkers, via expansions for the Migrant Health Program and via Medicaid are necessary. The expertise, facilities and targeting of the Migrant Health system is the only effective way to provide services to migrant and seasonal farmworkers. It must be built in to the new system, but not jeopardized by threat of being 'folded in' or 'homogenized'. Rather, it must be expanded greatly and its unique identify retained as a targeted resource to which farmworkers can turn. Accordingly, we call for the following:

- **Provide universal, affordable health insurance coverage and comprehensive benefits for everyone, with efficient and fair cost controls.**

  FY94 ACTION: Assure that Migrant and Seasonal Farmworkers are covered under Medicaid or its successor program as an eligible group. Provide them coverage nationally by the program as they travel, without regard for state-to-state differences in eligibility and benefits as at present.

- **Begin immediately to expand America's health centers to ultimately reach every** underserved community with cost-effective preventive and primary health care, including continued support for essential services not covered by insurance and for care to special populations such as farmworkers or homeless persons.

  FY94 ACTION: Raise the annual appropriation for the Migrant Health Program from $53 million for FY1993 to $100 million for FY1994. A funding increase of $47 million for FY1994 will not fully fund the program, but it will allow penetration into numerous areas with an intensity of services missing to date.

- **Make managed care and managed competition work for underserved people and communities**, including development of health care networks involving health centers and other "safety net" providers, and assuring their inclusion in managed care efforts.

  FY94 ACTION: Assure that the Migrant Health Program is fully included in any general managed care health reform program, as the key provider of care to this population. The mobility of migratory farmworkers, their special health needs and their poor health status and consequent higher costs of appropriate care will guarantee that they would be inadequately served in any broad capitated scheme.

- **Reform health professions training programs**, to significantly expand primary care training and increase primary care practice in underserved areas.

  FY94 ACTION: Substantially reform federal health professions education and training programs to stimulate expanded training of, and practice by, primary care providers. Find students who want to pursue a career in primary care, emphasize primary care in both undergraduate and graduate training, link training programs and Migrant Health Centers, and provide rewards for primary care practice, particularly in underserved areas such as farmworker communities.

We are is committed to the inclusion of farmworker health programs in a new care system for the country, with complete protection for the service adaptations needed. The **mobility** of migratory farmworkers, their **special health needs** such as pesticide poisoning treatment, and their poor health status and consequent **higher costs** of appropriate care are but three characteristics of farmworker health care delivery that will require special system configuration.

April 11, 1993

To: Helsinki Commission

From: Helen Johnston

Subject: Migratory farm labor

I find it hard to believe that a nationwide problem that has festered so long still remains so far from solution. As one speaker testified last Friday, we as a Nation have lacked the political will to follow through even when reasonable solutions have been proposed and some reasonable laws have been enacted.

Political will--with follow-through--was demonstrated when wartime labor shortages threatened American agriculture during World War II. Unfortunately, some of the "solutions" at that time later degenerated into problems. The importation of British West Indians to cut sugar cane is an example of a program beset by problems over the years. The legal basis for the World War II importation of "braceros" from Mexico no longer exists but the numbers crossing the Border continue to flood agricultural labor demand areas.

The one large-scale program created to benefit "domestic" (as opposed to "foreign") workers and their families grew out of the great depression of the 1930's and was continued during World War II to help meet farm labor shortages. Because of grower hostility to outside"interference"it was hastily dismantled after World War II as "no longer needed."

Hired farm work was once a stepping stone to independent farm ownership. Hired workers and employers often worked side by side. As large-scale industrialized farming replaced much of the old small-scale farm enterprise, it failed to assume the responsibilities of other industry toward its workers. The people recruited for farm work -- usually on a temporary basis for the duration of a crop season -- came from the most vulnerable segments of the population. At first recent immigrants

from Europe joined Southern Blacks and some impoverished rural Whites along the East Coast. Dust-Bowl refugees from Oklahoma, Arkansas and other States joined "ragheads" from India, Blacks, Filipinos, and Chinese laborers along the West Coast. Mexicans, native-born Latinos, and former sharecroppers circulated through central United States and elsewhere.

Hired farm work was no longer the former stepping stone; it was a "get-out-if-you-can" situation. World War II's industrial development and military recruitment provided an escape for many who had no wish to return to the substandard living and working conditions they had left behind. Thus the composition of the migrant farmworker population changed with the entry of new "have-not" people.

Hired farm labor continues to be a "get-out-if-you-can" situation, not because the work itself lacks dignity and innate worth but because the conditions of work continue to be unacceptable in terms of our general work standards or simple standards of human decency. Typically a worker has no power to bargain with his employer--he may not even know the name of the employer for whom he is harvesting a crop--nor under most circumstances can he risk joining with other workers to improve his living and working conditions. So the hired farm worker population continues to change over the years as some find a way out and are replaced from an apparently inexhaustible wupply of impoverished people, many from outside our national borders.

Docility, and a strong arm and back are the chief worker requirements imposed by employers in industrialized agriculture. To them, labor union organization continues to be anathema. Yet good faith bargaining between employers and organized groups of workers might be the employers' best insurance of a labor supply when and where he needs it, as well as a means of upgrading workers' present unacceptable living and working conditions.

Would food cost more? It might, but consumers have demonstrated readiness to pay more for other needed commodities produced under labor conditions that assure workers and their families a healthful, dignified, safe living and working situation.

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
Public Health Service

From Public Health Reports

Agricultural Migrants and Public Health

By LUCILE PETRY LEONE, R.N., M.A., and HELEN L. JOHNSTON

A COOPERATIVE inter-State and intra-State approach to migratory labor health problems was discussed by State health authorities during their Washington meetings November 4–7, 1953. At these meetings, the Association of State and Territorial Health Officers adopted the following resolution as recommended by its Special Health and Medical Services Committee:

"The Association encourages regional conferences . . . of health officers of States along major migratory streams to work out reciprocal programs for protection of the health of residents and migrants . . . to assure greater continuity and uniformity of services to migrants moving from State to State; and to share experiences on how localities and States go about meeting their problems. It is further recommended that each State and Territorial Health Officer examine the situation in his own jurisdiction and sponsor conferences with other State agencies concerned with the migratory problem."

In support of its recommendations, the Committee pointed out that "a large number of farm workers, many with families, migrate from State to State along fairly definite routes following the harvest of the major farm crops. Experience has shown that there is a high incidence of illness among these people and that there is a great variation in standards and services from State to State. The control of communicable disease and the meeting of the general health needs of groups of workers and their families at points along the routes would benefit from continuity and greater uniformity of services and procedures. It is believed that effectiveness of each individual State program would be increased by such a cooperative approach. It would tend to eliminate gaps and

Mrs. Leone, Assistant Surgeon General and chief nurse officer of the Public Health Service, is chairman of the Service's Interbureau Committee on Migrants. She served in 1952 as co-chairman with Dr. Otis L. Anderson, Assistant Surgeon General, and chief of the Bureau of State Services. Miss Johnston, a staff member of the committee, has done extensive work in the field of rural health for the Public Health Service; from 1943 to 1949 she was an economist in the Department of Agriculture.

The following background information is based largely on the work of the committee, which has recently prepared a general overview statement of the current situation, including data from detailed national and State reports concerning the living and working conditions of farm migrants, their health situation and services, and recent recommendations by a variety of groups.

The health problems involved are varied and complex. An interchange of experiences among health agencies dealing with these problems would serve a useful purpose in the development of improved practices. The pages of Public Health Reports are open to papers and reports on this topic.

duplications. It would also tend to improve services and standards and reduce present wide variations from one locality and one State to another."

The Situation

More than a million farm workers and their dependents follow the crops each year, moving from State to State as well as within States to supplement the local labor force at critical periods of crop production (*3*). Migrants comprise only about 7 percent of the farm labor force. They are employed in significant numbers on only about 2 percent of the Nation's farms, but to the large-scale industrialized farm and to many smaller specialized farms their help is indispensable. Without them, crops in some areas could not be produced and harvested. At the present time, migrants help to meet peak season farm labor demands in local areas of nearly every State for at least a few weeks of each year. Even with increased farm mechanization and greater productivity per worker, it seems unlikely that the need for them will wholly disappear.

Farm migrants can be roughly divided into the following major groups, according to seasonal routes (*4*):

- Atlantic Coast—chiefly Negro families working in fruits and vegetables;
- Texas to the North Central and Mountain States—chiefly Spanish-American families working in sugar beets;
- Texas to Montana, North Dakota, and Canada—single men, or men who leave their families at home as they follow the wheat and small-grain harvest;
- Texas to California and the Mississippi Delta—Spanish-American families working in cotton;
- South Central to North Central States—Anglo-Saxon families working in fruits and vegetables;
- South Central States, Arizona, and southern California to northern California and other western States—Spanish-American, Negro, Indian, Anglo-Saxon, Oriental, and Filipino families working in fruits, vegetables, and cotton.

About half of the farm migrants are United States citizens. Most of the remainder are Mexican nationals. During 1952, nearly 200,000 Mexican farm workers came into the country temporarily under an international agreement between the United States and Mexico (*5*). Several times this number came into the United States illegally as "wetbacks," crossing the Rio Grande or elsewhere along the Mexican border without being detected (*5, 6*).

The aliens who enter the United States legally present a relatively minor problem. They are single males, screened for physical defects before entry. Unlike domestic migrants, they work under contracts which provide minimum guarantees regarding wages, housing, transportation, and protection against occupational disease and accident.

Wetbacks, on the other hand, enter the country without physical examination. They work without contractual protection and under constant threat of being apprehended and deported. They have no recourse if the wages paid are less than those offered, or if housing or other living and working conditions are below a minimum standard. The control of wetbacks is under the jurisdiction of immigration authorities, but the possible spread of disease by them is a public health concern.

Of still greater concern to health, education, and welfare agencies than the foreign migrants are the three-quarters of a million domestic workers and their dependents who comprise half of the farm migrant population. Citizenship entitles them to the rights and benefits enjoyed by other citizens. Too often their rights have been ignored because of local residence laws, shortages of local services, community disinterest or antagonism, and other reasons.

Many domestic migrants belong to a racial or national minority. Some are family farm workers or operators from marginal farming areas who become part of the farm migrant labor force for part of the year. Illiteracy or inability to speak and read English are common among them.

Working and Living Conditions

A single worker or worker with his family may travel only within one county or he may

travel more than a thousand miles and through a half-dozen or more States. In any case, the work on which he depends is so far from home that there is no chance to return each evening. "Home" may be only the one of his temporary residences in which he happens to spend several months of the year. It is unlikely to be home in the sense that it confers upon him and his family legal residence status. Nor is it home for a long enough time to enable the family to build for itself a permanent place in the community.

The professional or skilled worker who moves to look for a better job sooner or later becomes assimilated into his new community. But for the agricultural migrant, migrancy is a regular condition of his employment. He may never live long enough in a single community to share the rights and benefits available to other citizens. He is not a commuter, nor does he move from one community where he has been a permanent resident to another where there may be only a temporary dislocation during the process of assimilation.

The agricultural migrant belongs to a heterogeneous, widely dispersed group that cannot easily be organized to improve its situation. Wherever the migrant goes, he and his family are "outsiders." Their constant need for shifting from place to place makes it impossible for them to accumulate wealth or to build substantial housing. In addition to the fact that residence requirements bar him from qualifying for some community services, the migrant, himself, may lack interest or understanding, or he may be afraid to seek needed services, hesitating to disturb a possibly unfriendly community. Local residents at best may be indifferent and at worst, hostile, afraid that he and his family represent a hazard to the health, morals, and property of the established community

Earnings

Like most other hired farm workers, he is not covered by minimum wage, workmen's compensation, unemployment compensation, and other protective legislation. He also lacks the health and welfare benefits made available to many industrial workers through collective bargaining.

Health and the Farm Migrant

". . . While some transients resemble, in their hygienic surroundings, residents of the same economic status, a greater proportion are forced to exist under almost every imaginable variety of insanitary condition . . . Serious overcrowding in the shelters is almost universal . . .

"Many camps not only have unsatisfactory facilities for sewage disposal but lack even a water supply that is fairly safe . . . A high rate of digestive diseases is normally found among persons living under such conditions.

"The effect of transients on community health is to increase the hazard of ill health to residents and to raise the incidence of most of the communicable diseases . . . This results chiefly from the fact that transients are not given equal consideration in community programs of sanitation, preventive medicine, and isolation of infectious cases of communicable disease."

These excerpts summarize the health situation of migrants according to a Public Health Service study covering 15 States in 1938 (1). The findings closely parallel those of a Colorado study in 1950 (2):

"Migrant families were large, averaging 5.7 persons.

"About half the families lived in one room.

"Only one-third could be sure their water supply was safe. For 13 percent it was obviously unsafe.

"Most families used 'pit toilets,' of which less than 1 in 4 would have passed elementary health inspection."

A Colorado physician remarked: "We know that communicable diseases are present among the migrants. The fatalistic acceptance of the situation, plus their poverty, makes the problem of medical care a critical one. Tuberculosis, enteritis, smallpox, typhoid fever, dysentery and venereal diseases have been more often detected by accident or search by public health officials than by patients voluntarily seeking medical assistance . . ."

The wages paid migrants may be relatively good—at least as high as those paid local workers at similar jobs. Annual earnings, however, are reduced by time lost from work as the result

of bad weather, poor crops, time consumed by travel from one place to another, and the problem of getting to the right place at the right time. Even with off-farm work to supplement work on farms, continuous employment throughout the year is unusual. It occurs only when workers have been able to piece together a number of jobs to make a long period of employment.

In 1949, less than 10 percent of the farm migrants in the United States had a full 250 days of work during the year. The remaining 90 percent averaged only 101 days per year. When both farm and nonfarm work are combined, earnings per worker averaged $514, excluding the earnings of children under 14. Annual family earnings are estimated at between $1,200 and $1,500 with two or more family members contributing to family income.

Average hourly earnings for all hired farm workers—including nonmigrants as well as migrants—have ranged from 24 to 44 percent of factory workers' earnings in recent years. Noncash perquisites—housing, garden space, and other items furnished by the farm operator—raise the annual cash earnings of regular hired farm workers by about 11 percent. For seasonal workers the value of noncash perquisites is only 7 percent of annual cash earnings.

Health, Housing, and Medical Care

Disabling illness rates for interstate family transients, according to the Public Health Service study in 1938 (*1*), were nearly twice those for residents of moderate or comfortable economic status and 1½ times the rates for residents of low economic status. Rates for epidemic and digestive diseases and for accidents were about twice as high among transient families as among residents.

Recent studies and reports confirm the findings of earlier studies indicating that the health level of migrants is below that of permanent residents of a community. Fresno County, Calif., prevalence of diarrheal disease among children observed in farm labor camps during July–December 1950 were significantly higher than for children observed in housing projects and at child health conferences (*7, 8*).

The infant mortality rate among Colorado migrants was nearly twice that for the State according to the 1950 study (*2*). More than a third of births to migrants in the 5 years 1946–50 were not attended by a physician. Only 42 percent of the persons surveyed had had smallpox vaccination. Only 10 to 20 percent had had diphtheria, whooping cough, or tetanus immunization.

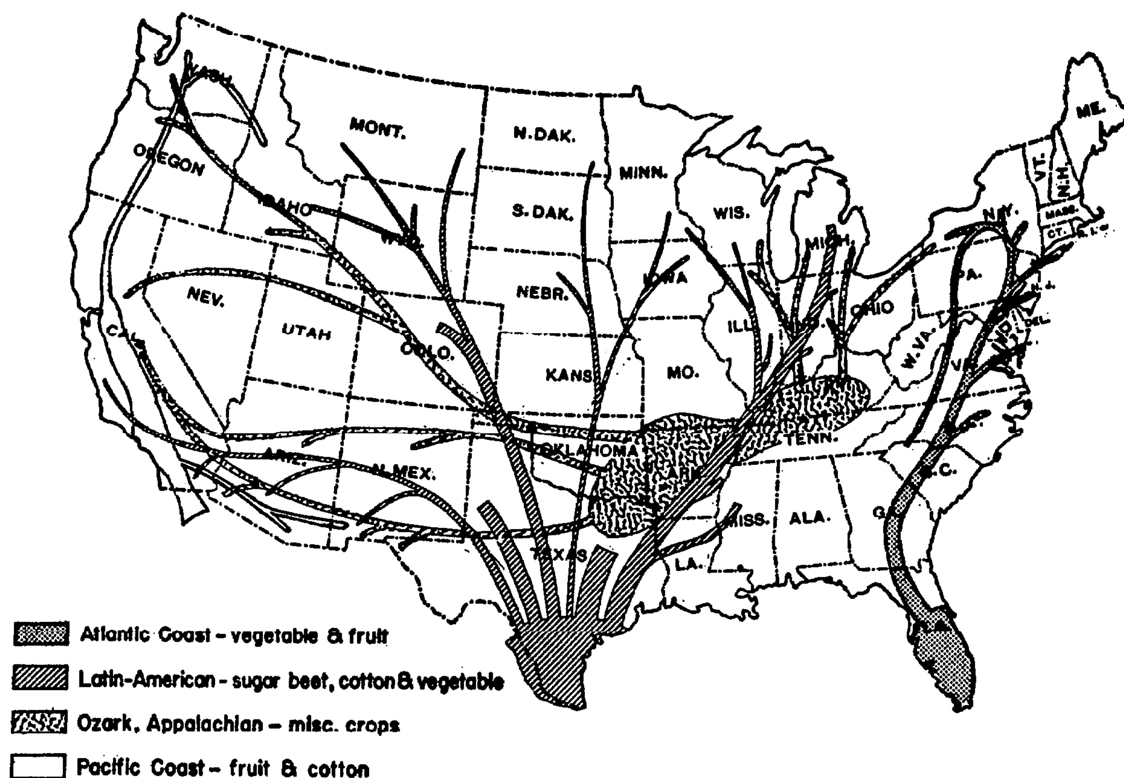
Nutritional deficiencies are common. The diets of migratory families are affected by low income and by lack of adequate cooking facilities, facilities for food storage, or time for food preparation, as well as by lack of understanding of nutrition requirements. A physician testifying before the President's Commission on Migratory Labor in 1950 reported dietary deficiency diseases such as pellagra among migrant workers as well as "ordinary starvation" (*6*). The Colorado study (*2*) commented on the "poverty diet" of the families surveyed in 1950.

Housing and Work Hazards

A number of States have laws or regulations which apply to all labor camps or to migrant camps specifically. In some, enforcement is not adequate. In other States, laws and regulations are lacking. According to a labor department official in one State: ". . . we have migrant workers living . . . in tents with no floors, on canal banks without any proper sanitation . . ." (*6*). A health officer in another stated: "Workers . . . crowd into shacks, tents, trailers, and similar quarters. Adequate and safe water supplies, toilets, bathing facilities, and proper sewage and refuse disposal are seldom provided . . ." (*6*).

However, some employers insist that poor housing conditions are not always their fault, and that housing which meets an approved standard is sometimes misused by the workers who occupy it.

The living conditions of migratory workers frequently lead to recurrent digestive disturbances and to the spread of respiratory and other infections. In addition, the migrant shares with other farm workers exposure to the occupational risks of agricultural employment—accidents, chemical poisonings, skin disorders



Source: U. S. Department of Labor, Bureau of Labor Standards.

Travel patterns of seasonal migratory agricultural workers. The map shows the northward migratory movement. This is reversed as the crop season ends in the northern States and the workers drift back to home base—for many of them, southern California, Texas, and Florida.

from working with citrus fruit, and other hazards (*9*).

Medical Care

Except in extreme emergency, migrants are usually without regular medical services. An employer sometimes assumes responsibility for medical care for his workers. In rare cases workers are covered by insurance. Emergency hospitalization is sometimes financed by local welfare departments.

The 1938 study (*1*) reported: "The data presented on the cost of public hospitalization now being supplied to transients in general hospitals seem to show that an enormous load from this cause is being carried by some communities, in spite of the fact that transients generally receive considerably less medical care and hospitalization than do residents."

In 1950 one Colorado county spent nearly $5,000 for hospital care for 19 migrant families. Another reported spending $65,000 for tuberculosis patients during the previous 5 years. Between 50 and 60 percent of the patients were from "the substandard slum type of housing in which Spanish-American agricultural workers live." In no other Colorado county was comparable assistance to migrants reported (*2*).

The combination of poor diet, poor living conditions, and lack of medical care tends to aggravate any disability a migrant may have. This fact was commented upon in 1938: "Living in a camp . . . and other temporary quarters, lacking even facilities for self-medication or continuous rest in a comfortable bed, a disabled transient who cannot secure medical attention not only is subjected to a more miserable experience than is a resident ill of the same condition but he is also much more likely to have serious complications . . ." (*1*).

A handicap that is likely to affect the migrant more acutely, although shared with other rural residents, is the lack of physicians, nurses, and other health personnel in rural areas compared with urban places.

The interrelatedness of health, education, and welfare problems of migrants is illustrated by recent statements of State school officers (*10*). When asked the reasons migrant children were not in school, they often referred to problems of health—either real or based on suspicions of the community that the migrant child might be a disease carrier as the result of his living conditions.

Governmental Responsibilities

Responsibility for eliminating the problems which arise because of migrant labor and meeting the needs of the migrants is widely diffused through national, State, and local governments and agencies. In the Federal Government, for example, the Department of Justice, through its Immigration and Naturalization Service, is responsible for control of wetbacks. The Departments of Justice and Labor share responsibility for the legal importation of Mexican workers, with the Public Health Service assuming responsibility for health examinations. Other responsibilities of the Department of Labor include aiding "workers to find jobs and employers to find workers," and enforcing the Federal child labor law. The Department recognizes child labor in agriculture as a major problem in enforcement of this law.

The Bureau of Indian Affairs in the Department of the Interior has a concern for migrants to the extent that reservation Indians become part of the migratory labor force for part of each year. The Department of Agriculture makes studies of farm migrants as part of its investigations of the farm population and farm manpower. In some cases its educational services are extended to migrants through the Agricultural Extension Service.

The Department of Health, Education, and Welfare has varied responsibilities under programs to serve all eligible persons, in some cases the entire community. Such programs include those of the Children's Bureau, the Office of Education, the Bureau of Public Assistance, the Office of Vocational Rehabilitation, and the Public Health Service.

This résumé of Federal responsibility is, of course, incomplete, but it serves to illustrate the scattering of interest and concern for the welfare of migrants that is generally found in State and local governments and among voluntary agencies as well. With few exceptions, programs are designed to serve a permanent community and are ineffective in reaching migrants. Many of the reasons for their ineffectiveness have already been referred to—residence requirements; inadequate facilities, staff, and funds; language barriers; generally inadequate means for informing migrants of the services available or for informing agencies of migrants' needs; and other obstacles. Moreover, programs designed for a fixed population often must be modified to meet the needs of a population "on the move."

A further problem for the migrant in obtaining community services is the attitude of residents in many areas, which is usually reflected at least in some degree by local official and voluntary groups. Although he may be greatly needed by the community for its own economic welfare, he is unlikely to be accepted as part of the community while he is there. Near the Mexican border local residents may shrug off responsibility, looking at the shacks across the border and saying of their own Spanish-Americans, "They never had it so good in Mexico." And in States farther north people may say, "These people live in shacks and hovels in Mexico and Texas. Why should we improve their conditions here?"

Local and State Programs

Where such attitudes do not exist or have been largely overcome, significant changes have occurred. Hollandale, Minn., for example—a community of less than 400—has a continuing program to get the children of 800 migrant families into schools while they are in the area. The Waupun, Wis., Community Council on Human Relations has tried to integrate the migrant workers into the community by holding "family nights" for both migrants and local residents and by welcoming the migrants into local churches.

The New York State Department of Labor requires anyone bringing in 10 or more migrants from outside the State to register. Under this requirement, 820 migrant camp properties came under health department supervision during 1952. An average of 8.2 inspections were made for each property under supervision and many improvements were reported.

New York's Interdepartmental Committee on Farm and Food Processing Labor involves 9 State agencies in efforts to plan and work together. As part of this coordinated effort, the State health department participates in providing nursing services for migrant families, supplementing local services as necessary by supplying nurses from the State staff. Before the peak season in an area, conferences are held by the public health nurses, their supervisors, and camp operators and owners to review the services available, make an estimate of expected health needs of the migrants coming in, and plan to meet these needs.

State and local programs in other areas also provide needed services for migrants. Taken altogether, however, these programs are few and scattered, important chiefly as local demonstrations. Local officials trying to stretch services to meet the needs of migrants comment: "We can't do a 12-months' job in the short time the migrants are here." How to provide continuity of services as families move from place to place is a question they feel demands solution.

Reports from Palm Beach County, Fla., illustrate the problems involved in some of the local efforts. In one labor camp in the county, school enrollment ranged from 88 in September to 314 in May. In all white schools of the county exclusive of those in the main population center, enrollment increased by more than 2,000. The increase in the Negro schools was a little less than 2,000. If all children had been required to attend, the limited classrooms could not have held them.

.ch County Health Department difficult to meet the needs of and their families coming in each year. The efforts they make may be at the expense of programs for permanent residents. And the same migrants with the same problems are likely to be back on their doorstep year after year with little evidence that they have had care while they traveled in other States.

Recommendations by Various Groups

For the last half century, local, State, and national groups have been concerned about ways to improve the living and working conditions of migrants. Recurring recommendations of various commissions and conferences give evidence of this concern. The Country Life Commission in 1909 recommended employment on an annual basis and good housing. The Tolan Committee report in 1941 recognized the need for States of heavy in-migration to adopt laws establishing minimum conditions of health, sanitation, and housing on farms employing migratory agricultural labor (*11*), and so on, to the Federal Interagency Committee on Migratory Labor's report in 1947 (*12*), the report of the President's Commission on Migratory Labor published in 1951 (*3*), and the hearings on migratory labor in 1952 (*6*).

Out of the deliberations of such groups certain general principles and recommendations have evolved:

1. A program for migrants should be developed in terms of meeting their needs as human beings—not just to meet an emergency.
2. The health problems of migrants involve need for protecting the communities where they work temporarily as well as for protecting the migrants themselves.
3. The eventual goal should be to give as many migrants as possible roots in a local community where they can make their own place, gain community acceptance, and become eligible for the rights and benefits available to other citizens.
4. Services for migrants should be developed in a way that will integrate them into rather than separate them from the rest of the population.

Services must be adapted to the special needs of migrants, however, with recognition of their differences from local community residents in background, attitude, and behavior; with estab-

lishment of stationary services at major points of labor concentration and mobile services as needed; and with arrangements for continuity of services as migrants travel from one place to another.

Special measures should not be set up to meet a need that can be met through an existing program. The interest and activities of local, State, and interstate official and voluntary agencies should be encouraged and built upon as fully as possible.

5. Existing housing, health, and other standards, and laws and regulations applicable to migrants need to be applied to their situation; if necessary, these should be modified to assure the migrant the same protection and benefits available to other citizens.

6. Methods need to be developed whereby health services of high quality—both preventive and curative—can be distributed effectively and economically throughout rural United States.

Summary

Peaks of demand for agricultural workers create peaks of need for health services in many communities in many States. Some of these communities do not have public health and medical care facilities and personnel sufficient to meet their own needs, and even those which are well supplied have difficulty in meeting the greatly increased needs presented by migrant workers and their families for a few weeks or months each year. Also complicating the problem of matching needs with services in many situations are such facts as nonacceptance of these families by the community, ineligibility of nonresidents for services of various types, and ignorance of migrants as to where to seek help.

Migrants present the gamut of needs for health, education, and welfare services—needs which are intensified by their economic and educational status and by the fact of their migrancy. Challenges to official and voluntary agencies lie in finding ways to coordinate required services locally and to make these services continuous as migrants move from place to place. Some States have made considerable progress in meeting the first of these challenges. Interstate cooperation will be required to meet the second. At stake are the health and welfare of more than a million people who make a vital contribution to our national economy as well as the health and welfare of the communities through which they move.

REFERENCES

(1) Blankenship, C. F., and Safier, F.: A study of medical problems associated with transients. Pub. Health Bull. No. 258. Washington, D. C., U. S. Government Printing Office, 1940, 132 pp.

(2) Thomas, H. E., and Taylor, F.: Migrant farm labor in Colorado. New York, National Child Labor Committee, 1951, 116 pp.

(3) U. S. President's Commission on Migratory Labor: Migratory labor in American agriculture. Washington, D. C., U. S. Government Printing Office, 1951, 188 pp.

(4) U. S. Extension Service: Preliminary survey of major areas requiring outside agricultural labor. Extension Farm Labor Circ. 38. Washington, D. C., U. S. Government Printing Office, 1947, 207 pp.

(5) U. S. Congress. Senate Committee on Agriculture and Forestry: Extension of the farm labor program; Hearings . . . on S. 1207. (83d Cong., 1st sess.) Washington, D. C., U. S. Government Printing Office, 1953, 106 pp.

(6) U. S. Congress. Senate Committee on Labor and Public Welfare, Subcommittee on Labor and Labor Management Relations: Migratory labor; Hearings . . . Parts I and II. (82d Cong., 2d sess.) Washington, D. C., U. S. Government Printing Office, 1952, 1089 pp.

(7) Watt, J., Hollister, A. C., Jr., Beck, M. D., Hemphill, E. C.: Diarrheal diseases in Fresno County California. Am. J. Pub. Health. 43: 728–741 (1953).

(8) Teilman, I. H.: For migrant families. Child 18: 38–42 (Nov. 1953).

(9) Axelrod, S. J.: Health problems in industrialized agriculture. Am. J. Pub. Health 39: 1172–1175 (1949).

(10) U. S. Office of Education: Report of regional conferences on education of migrant children. Washington, D. C., The Office, 1952, 40 pp. Mimeographed.

(11) U. S. Congress. House of Representatives. Select Committee to Investigate the Interstate Migration of Destitute Citizens: Interstate migration; Report . . . pursuant to H. Res. 63, 491, 629 (76th Cong.) and H. Res. 16 (77th Cong., 1st sess.). House Rept. No. 369. Washington, D. C., U. S. Government Printing Office, 1941, 741 pp.

(12) Federal Interagency Committee on Migrant Labor: Migrant labor . . . a human problem; Report and recommendations. Washington, D. C., U. S. Government Printing Office, 1947, 58 pp.

67-548 O - 93 - 12

The Farmworker Association of Central Florida, Inc.

La Asociación Campesina

Asosiyasyon Travayè Latè

815 South Park Avenue ☒
Apopka, Florida 32703
(407) 886-5151

106 N. Center Street ☐
P. O. Box 496
Pierson, Florida 32080
(904) 749-9826

Linda Fisher
Assistant Administrator
Environmental Protection Agency
401 M Street, S.W.
Washington, D.C. 20460

also sent to Mr. Bob Williams
Secretary
H-RS
1317 Winewood Blvd
Tallahassee, FL 32399-0700

October 7, 1992

Dear Ms. Fisher:

On Monday, September 28,1992, the Farmworker Association of Central Florida,Inc. a multi-racial, multi-ethnic organization of over 4,000 farmworkers, forwarded to your office a list of demands related to the farmworker community's exposure to BENLATE.

To date, we have received no written nor verbal response from your organization. We have great difficulty understanding your total lack of response. Is there no accountability to us as potential victims from BENLATE use from your organization? Are we, who harvest the food that covers the tables of our nation, and cut the flowers and ferns as well as the green plants and trees that decorate our homes, and our health of little importance to your organization?

Our people have signed the enclosed petitions to help you understand our outrage at this situation and once again to request a response before we take this issue to a more public forum.

Therefore, the Farmworker Association of Central Florida is requesting a face-to-face meeting with you in our Central Florida Office to address these demands. We ask you to respond no later than Tuesday, October 13, 1992.

If we do not receive a response to this our second communication, we will have to take this issue to a more public forum to insure our protection and that of our families. You may fax us a response at the following number (407) 884-5200. We await your response.

Sincerely,

Tirso Moreno (ac)

Tirso Moreno
General Coordinator

PETITION

We the undersigned are demanding that the Environmental Protection Agency (EPA) and the State of Florida's Department of Health and Human Services take the following actions :

1. That the continued use of all forms of BENLATE be prohibited by EPA until the effect of this fungicide on the health of farmworkers is determined.

2. That EPA do an epidemilogical study to determine if Farmworkers are experiencing problems similar and/or different than those described and reported by growers in relation to BENLATE exposure and further engage in a study to identify those chemicals that have caused human and crop damages and possible continued contamination of the workplace due to BENLATE use.

3. That a state-wide master list of growers using any form of BENLATE be complied from application records filed with the state and that this list be accessible to farmworkers and farmworker organizations now.

4. That a state sponsored survey of all workers and their families who were exposed to BENLATE, as identified from state application records, be conducted immediately.

5. That legislators and the present state government include farmworkers under the protection of the "RIGHT TO KNOW LAW" of the state of Florida.

6. That free health testing for farmworkers and family members be provided at public health clinics and /or by means of mobile units.

7. That health personnel be mandated to inform workers of their test results so that all workers and their families can receive appropriate care.

8. That EPA do a study to investigate the contamination of the work place due to the present and past use of BENLATE within Florida's agricultural industry.

NAME ADDRESS

The Farmworker Association of Central Florida, Inc.

La Asociación Campesina

Asosiyasyon Travayè Latè

815 South Park Avenue
Apopka, Florida 32703
(407) 886-5151

106 N. Center Street
P. O. Box 496
Pierson, Florida 32080
(904) 749-9826

PRESS STATEMENT

THE FARMWORKER ASSOCIATION OF CENTRAL FLORIDA, A MULTI-RACIAL, MULTI-ETHNIC MEMBERSHIP ORGANIZATION OF OVER 4,000 FARMWORKERS, IS HOLDING THIS PRESS CONFERENCE TODAY TO ADDRESS FARMWORKERS' EXPOSURE TO THE PESTICIDE, BENLATE; AND TO PRESENT PUBLICALLY OUR DEMANDS CONCERNING THE POTENTIAL HEALTH HAZARDS TO WHICH WE AND OUR FAMILIES MAY HAVE BEEN EXPOSED AND APPROPRIATE ACTIONS THAT NEED TO BE TAKEN.

MEDIA COVERAGE AND THE DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES' STUDY TO DATE HAVE HIGHLIGHTED THE SERIOUS HEALTH PROBLEMS EXPERIENCED BY GROWERS IN RELATION TO EXPOSURE TO BENLATE. TODAY, ON BEHALF OF THE THOUSANDS OF FARMWORKERS EMPLOYED IN AGRICULTURE, WE ASK:

WHY WERE WE NOT INFORMED OF THE POTENTIAL HEALTH HAZARD OF BENLATE?

EVEN AS WE SPEAK TODAY, NO STATE-WIDE EFFORT HAS BEEN MADE TO NOTIFY FARMWORKERS NOR CALL THEM IN FOR TESTING? WE ASK:

WHO DECIDED TO EXCLUDE US?

ARE OUR LIVES AND THOSE OF OUR FAMILIES NOT OF EQUAL VALUE?

THE CONTINUED DELAY IN INFORMING US, MAKES OUR RISK MORE CRITICAL.

WHY HAVE WE NOT BEEN TOLD OF POSSIBLE MISCARRIAGES, TESTICULAR CANCER, NOSE BLEEDS, AND OTHER SEVERE HEALTH PROBLEMS?

ARE WE LABORERS NOT PRIME CANDIDATES FOR EXPOSURE?

GIVEN THIS REALITY, WE, THE FARMWORKER ASSOCIATION OF CENTRAL FLORIDA, WANT ALL FARMWORKERS, OUR FAMILIES, AS WELL AS THE PUBLIC AT LARGE TO UNDERSTAND THE RISKS FROM BEING EXPOSED TO BENLATE.

FURTHER, WE PRESENT THE FOLLOWING DEMANDS, TO THOSE RESPONSIBLE GOVERNMENTAL AND ENVIRONMENTAL AUTHORITIES, FOR ACTION.

1) FIRST AND FOREMOST, WE DEMAND THAT CONTINUED USE OF ALL FORMS OF BENLATE BE PROHIBITED BY EPA, UNTIL THE EFFECT OF BENLATE ON THE HEALTH OF FARMWORKERS AND OUR FAMILIES IS DETERMINED.

SIMULTANEOUSLY, WITH THE PROHIBITION OF THE USE OF BENLATE, WE DEMAND THAT ACTION BE TAKEN IN THE FOLLOWING PRIORITY AREAS:

2) **PROVISION OF INFORMATION**

a) that a state-wide master list of growers using BENLATE be compiled from application records filed with the State and further that this list be publicized to farmworkers, farmworker organizations and health personnel so that possible BENLATE exposure can be known.

b) that HRS set up a mechanism, in collaboration with farmworker organizations, to inform all farmworkers and our families of possible health risks from the exposure to BENLATE. Possible avenues to accomplish this would be: a multi-lingual toll-free number to alert workers to symptoms, testing sites state-wide, and multi-lingual TV and Radio spots with the above information.

c) that legislators and the present state government be challenged to include farmworkers under the protection of the "RIGHT-TO-KNOW" law.

d) that the state insure that public and private health providers and clinics submit monthly reports on the identification of possible BENLATE-related problems to HRS or some other identified state department and that farmworker organizations have access to this information.

3) **INITIATION OF RESEARCH**

a) that the recommended EPA study on BENLATE include farmworkers and our families, our health problems, identification of the chemicals that have caused the plant and human damage, the continued contamination of the workplace due to the present and past use of BENLATE on crops.

b) that no State agency or University who has received funding from the DUPONT COMPANY, who manufactured BENLATE, be involved in the EPA or State studies done on the BENLATE health effects.

c) that a state-sponsored survey of all workers who were exposed to BENLATE, as identified from the state application records, be conducted.

4) PROVISION OF MEDICAL ASSISTANCE AND SUPPORT

a) that HRS insure that health personnel are alerted to the possible health problems stemming from BENLATE, the type of testing needed, and the methods of reporting findings.

b) that free health testing for farmworkers, our families and others affected be provided at public health centers/clinics frequented by farmworkers.

c) that the state testing sites be accessible to farmworkers and our families, i.e. be located in our neighborhoods or be mobile units rather than located at medical centers at distances from our communities.

d) that a mechanism be established for treating on-going health problems of farmworkers and our families which are related to BENLATE exposure.

e) that health personnel involved be mandated to inform farmworkers of our test results so that we can know our health condition and receive appropriate care.

Our demands are being forwarded to Governor Chiles, officers of the State legislature, Florida's Department of Health and Rehabilitative Services (HRS), the Environmental Protection Agency (EPA), Florida's Department of Agriculture, Occupational Safety and Health Administration (OSHA), the Governor's Advisory Council on Farmworker Affairs, the Florida State Commission on Hispanic Affairs, the National Institute of Occupational Safety and Health, Florida Pesticide Review Council, as well as major newspapers, television and radio stations.

We are asking that these demands be responded to by HRS within five working days. We ask this since HRS was the agency responsible for the investigation of the complaints of growers related to BENLATE.

The Farmworker Association of Central Florida asks all concerned citizens to call Mr. Bob Williams, Secretary of the Department of Health and Rehabilitative Services at (904) 488-7721, and demand with us that these actions be taken in justice to the well being of all Florida residents involved in the BENLATE exposure.

For further information, contact Tirso Moreno, at (407) 886-5151 or Roman Rodriguez at (904) 749-9826.