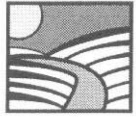

CALIFORNIA INSTITUTE FOR RURAL STUDIES

DRAFT CONCEPT PAPER

From Suffering in Silence to Health Empowerment: A Proposed Research Agenda for Agricultural Worker Health

Submitted To:

The California Endowment

May 29, 2001

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Resource Id#: 5015

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Introduction

By sponsoring of the California Agricultural Workers Health Survey (CAWHS) and publishing the survey's results in Suffering in Silence: A Report on the Health of California's Agricultural Workers, The California Endowment has achieved several notable goals to date. First, reminiscent of Edward R. Murrow's Fields of Shame, the Suffering in Silence report has helped focus national and, in particular, state public attention to the plight of the state's 1.3 million farmworkers and their families. Second, the report, the ensuing media coverage, and numerous public presentations of the results by CIRS has energized California's farmworker advocacy organizations and given new hope for long-term policy solutions to farmworker health and housing needs. Third, the large volume of empirical data gathered by the California Institute for Rural Studies in the CAWHS and the companion study, the Binational Health Survey (BHS), has led to additional research reports highlighting new findings. These insights reinforce Suffering in Silence and the larger rationale for a policy development agenda. And fourth, as originally intended, the CAWHS and BHS have provided TCE with a sound basis for further programmatic development in the area of farmworker health, a critical component of its larger commitment to multicultural health in California.

This document sets forth a general conceptual framework for a continuation of this productive collaboration between The California Endowment and the California Institute for Rural Studies. With the recent five year commitment on the part of the Endowment Board of a $50 million investment in this program area and the empirical base provided by the two CIRS surveys, the opportunity for creative solutions in the field of farmworker health is clearly in place. Specifically, the research agenda outlined below is designed to act as a bridge between the baseline of farmworker health information established by the two CIRS surveys and TCE's programmatic development.

The concept paper begins with a problem statement outlining the survey findings and their place within the larger matrix of challenges and constraints faced by California's farmworker population. This is followed by a summary of CIRS' research role in the program to date and a discussion of its qualifications for further involvement. The main body of the paper then discusses a set of prospective goals and objectives for

CIRS research efforts across the duration of TCE's farmworker health initiative. Short-term objectives, i.e. those preparatory to the launching of the initiative in fall 2001, are discussed in some detail. Equally important, we place these efforts within a larger functional and temporal framework based on a Phase I, Phase II, and Phase III nomenclature.

Problem Statement and Conceptual Framework

While there remains much to be understood, there are several salient aspects of farmworker life that help us understand the disturbing findings of the CAWHS and BHS (see Figure 1). First is the binational nature of a workforce that is 90% Mexican raised and retains deep familial and cross-border social network ties to Mexico. Reflecting the general North/South dichotomy in socioeconomic conditions between the two countries, the California farmworker population is both shaped and replenished by the lack of economic alternatives in rural Mexico. NAFTA-based forces of trade liberalization have accelerated the process of small farm failure in rural Mexico (Lopez, 2001). These push factors account in part for the incredible suffering and sacrifices that accompany the northward migration from rural Mexico. Approximately 50 % of these migrants are undocumented and a very high proportion are functionally illiterate in Spanish and English.

Coincident with these macro-level factors, health care expectations forged by the model of medicine practiced in rural Mexico have assembled a population of California workers and, increasingly, residents, whose theories of disease and experiences with health care delivery conflict in fundamental ways with the U.S. model of health services. As outlined by Mines et al. (2001), key elements of this problematic for the farmworker include an over-emphasis upon treating symptoms rather than underlying causes which is aggravated by an unfamiliar U.S. system that often requires multiple, time consuming, and expensive visits to doctors for treatment of the same ailment.

A host of occupational and lifestyle factors also act as drivers of poor health among this population. Workers are subject to long days in debilitating heat where they typically engage in repetitive tasks that are particularly conducive to musculoskeletal trauma. At the same time, the biological nature of agricultural production and its

intensely competitive commodity markets set into place severe time constraints on management that are passed on to workers in the fields. Workers' quest for a minimal income, few economic options, and the prevalence of undocumented status also contribute to a high degree of exploitation by crew bosses. High levels of pesticide exposure set into place risk of acute reactions and indeterminant yet potentially debilitating long-term health impacts. In addition, the seasonal nature of farm labor results in intense periods of work and income punctuated by long periods of inactivity and underemployment.

A complex of attitudinal, economic and institutional factors tied to lack of legal status, low-income, high mobility, intermittent but long working hours, reliance on the inexpensive alternative of Mexican medicine in time of need, and the lack of faith in U.S.-based medicine all contribute to extremely low levels of access to care. Equally important, seasonal employment largely precludes the opportunity for consistent employer-provided health insurance and presents challenges to obtaining public insurance (**Access to care report**).

In addition, a combination of food system, occupational, and genetic factors create a high level of risk for chronic diseases related to obesity, e.g. diabetes, hypertension, and stroke, for farmworkers of Mexican origin. Evidence suggests that genetic factors contribute to more rapid conversion of simple carbohydrates to lipid tissue among this population. Farmworkers who immigrate to the U.S. are particularly vulnerable to an inexpensive, easy-to-prepare diet of simple carbohydrates and saturated fats that lacks sufficient intake of fresh fruits and vegetables. Seasonal work patterns and reductions in exercise such as walking can also contribute to weight gain (Mines et al., 2001). In addition, new genome mapping research has identified the gene responsible for higher prevalence of diabetes among those of Mexican (and Afro-American) origin (Maugh, 2000). Related research has uncovered functional link between obesity and diabetes (Maugh, 2001).

Given these structural factors, the disturbing findings of the CAWHS and BHS are more understandable. Both surveys paint a picture of a population whose health is poor and deteriorating over time. Physical examination data from the CAWHS show that

53% of the men and 46% for women exhibited at least one of the three risk factors for chronic disease: obesity, high blood pressure, or high serum cholesterol (Villarejo et al., 2001). With its inclusion of retired workers, the BHS provides a long-term window on the vulnerability of this population to chronic disease. Predictably, it found that over 25% of the survey respondents suffered from a chronic disease (Mines et al., 2001). Correspondingly, the CAWHS reveals a high correlation between length of residence in California and the prevalence of chronic disease risk factors. The crux of the problem is its combinatorial character: As shown in Figure 1, the negative health outcomes emerge from a complex chain of events, processes, and structural factors that reflect the equally complex contradictions between cultural and economic forces distributed across a binational, North/South divide.

Placed within the context of a regional, food system perspective, these outcomes and trends are a source of even greater concern and underscore the need for new, more creative public policy approaches to the problem. At the heart of this contention is agriculture's weak position within the food system. As outlined by Lighthall (2000), the chronic low wages and lack of health benefits received by farmworkers is a logical manifestation of a sector that, in general, is incapable of passing on costs to upstream commodity buyers. This sectoral vulnerability, combined with rapid entry of competing producers in other U.S. regions and nations, has resulted in a historical downward pressure on commodity prices and relatively high rates of firm failure (Cochrane, 1979). The bottom line outcome is an extremely low probability that farmworker health can be addressed via the provision of employer-provided health care alone.

From the perspective of California's rural regions and their health care systems, the outlook is not encouraging. California's rural hospitals are currently in near crisis mode, suffering from low Medi-Cal reimbursements, the exit of providers to regions with wealthier clienteles, and new forces of competition from managed care (Williams, 2000). Symptomatic of these factors, 70% of the state's rural hospitals lost money in 1999 (Avery, 1999). While small in overall population relative to the state as a whole, the state's 1.3 million farmworkers and household members compose a significant fraction of the uninsured population in rural hospital catchments.

A range of factors related to cultural attitudes towards disease, ineligibility for or inability to access public programs, lack of ability to pay, and high vulnerability to chronic disease has also resulted in relatively high rates of emergency room visits by farmworker households. Moreover, this population is particularly prone to expensive delays in the diagnosis of chronic disease. As pointed out by Dr. Oscar Sablan of Firebaugh in a recent New Year Times article, renal failure in diabetes cases resulting from late diagnosis can result in yearly treatment costs in excess of $1 million (Greenhouse, 2001).

The findings of the CAWHS and BHS forebode a significant increase in such cases for California's rural hospitals unless some means is found to substantially improve provider awareness of farmworker health needs and of enhancing farmworker health awareness and access to preventive care. Whether our rural hospitals or the state funds for indigent care they depend on can sustain a progressive increase in public health care costs over a long-term time horizon is questionable. This underscores the need to regard public- and/or foundation-based investments in provider training and community-based health education and prevention (HEP) programs as intrinsically tied to rural economic development. On the one hand, promotora- and clinic-based HEP programs provide new sources of income and pathways towards lucrative health system careers. On the other hand, this bottom-up approach to culturally-competent preventive care is likely to substantially reduce health costs due to severe and chronic conditions in rural regions such as the San Joaquin Valley. By whatever means, the goal of reducing social overhead costs tied to catastrophic care is an essential element in any state, regional, or county plan for economic development.

This assessment of farmworker health is daunting given the depth and intractability of the problem. Conversely, the situation presents The California Endowment with a historic opportunity to set into place a coordinated set of processes that could result in long-term solutions. As researchers, we have specialized in gaining intimate access to farmworker communities and in obtaining knowledge of innovative provider approaches. With the generous support of The California Endowment and the critical leadership of its key staff members, the California Institute for Rural Studies has been able to achieve a rare level of research expertise in the field of farmworker health. It is only natural,

therefore, that we play a constructive role in maximizing the social capital outcomes of TCE's continued investments in this field. What follows is a research agenda by CIRS that is consciously designed to both guide and complement the foundation's strategic investments in agricultural worker health over the next five years.

Research Approach and Rationale

The case for CIRS: Prior to outlining our general approach to this next phase of research, it is important to justify the Institute's proposed status as the applied research arm of the Endowment's ongoing program in agricultural worker health. In general terms, the argument centers on the elements of organizational commitment, accumulated expertise, cultural competency and legitimacy, grassroots ties, and a solid foundation of collaboration with The California Endowment.

The philosophy of science that guides and animates our research approach is based on the conviction that sound science is an important basis for addressing complex, intractable social problems. In the case of well-entrenched, systemic problems such as the one outlined above, it is particularly important that public policy development be built on a solid empirical foundation. Furthermore, we are explicitly cognizant of the fact that the questions that researchers pose and the issues they choose to address inevitably involve subjective human values, i.e. the concept of value-free, objective science is by nature problematic. By the same token, once a research effort is underway, we are firmly committed to the rigorous application of the scientific method and strict adherence to recognized standards of inference.

Under the leadership of prior Executive Director Don Villarejo, CIRS has long addressed the full range of contentious farm labor issues in the state. Through such efforts as the ground-breaking Parlier study, CIRS has consistently demonstrated its unique capacity to gather highly-relevant but difficult to obtain primary data regarding the health and demographics of farmworkers (Sherman, 1997). Enriching that legacy, Rick Mines, the current Research Director of CIRS, brings 25 years of experience directing case study and survey research on farmworker communities. The CAWHS and BHS represent both a continuation and culmination of these capacities.

In toto, the CAWHS and BHS represent a quantum leap in our understanding of farmworker health. While the analysis of this vast amount of data collected by both studies has resulted in several ground-breaking reports to date and several more in progress, much of the more specialized aspects of the survey data remain untouched. In addition, none of the reports either published or in progress have utilized more sophisticated multi-variate methods of analysis. These techniques hold the potential for further insights that could provide critical input to TCE's ongoing program development. Continued research support from TCE would insure that (1) the process of mining the BHS and CAWHS data and of extrapolating it to the larger NAWS sample can continue and that (2) new findings will be fully accessed by TCE.

Intimately related to CIRS' philosophy of science and topical expertise is our high level of cultural competency and grassroots relationships to rural CBOs, particularly those who provide services and/or advocate for farmworkers. These outcomes are the result of over 20 years of providing these organizations with research results that are directly relevant to the day-to-day problems faced by farmworkers and the rural communities they compose. In return, these organizations, a number of which are binational in nature, have been of invaluable assistance in helping CIRS researchers develop insightful research designs that has, in turn, led to successful fieldwork. In the case of the CAWHS, an advisory committee composed of farmworkers was instrumental in the design and content of the survey instrument. Furthermore, our ability to recruit and train a cadre of community-based, culturally competent interviewers led to an overall acceptance rate of over 82% in a population that is generally thought to be over 50% undocumented. Nearly 1,000 interviews were conducted without one reported incident of conflict or complaint. Furthermore, the BHS project demonstrates another vital skill needed for understanding farmworker health—the ability to penetrate and gain accurate information from binational networks based in particular sending areas. In the BHS, where interviewers slowly built up trust within 'natural' communities, the refusal rate was insignificantly small.

CIRS has assembled an outstanding team of researchers to lead the second round of field research. Led by CIRS Research Director, Dr. Rick Mines, the team includes three other field-tested Ph.D. social scientists, Kathryn Azevedo of Stanford University,

Bonnie Bade of California State University, and Nancy Mullenax of Aguirre International, with a long track record of ethnographic work and publications in the area of farmworker health. Their extensive experience in conducting direct interviews with farmworkers and providers is an essential prerequisite for the intensive, qualitative mode of Phase II research (see below).

In respect to the analytical team, Rick Mines combines his extensive field experience with farmworkers and deep binational understanding with a comparable level of SAS programming experience. CIRS Executive Director, Dr. David Lighthall, supervised the CAWHS fieldwork and data analysis. Lighthall has a wide range of field research experience in the U.S. and India. His theoretical expertise in food systems and agricultural political economy are complemented by a strong background in environmental health, public policy, and qualitative methods. Senior Research Analyst, Dr. Ken Kambara, has a strong background in both quantitative and qualitative methods. Kambara has spearheaded the SPSS-based analysis of the CAWHS data and has begun to implement a creative approach to the multi-variate analysis of the data.

And finally, CIRS has consistently made good on the research investments of the Endowment. Both the BHS and CAWHS represent extraordinary fieldwork achievements that were completed on time and within budgets. In addition, the Institute has worked closely with TCE staff throughout the process. This process of coordination with TCE staff has been magnified by the strong, favorable response to the CAWHS findings by TCE President and CEO, Dr. Robert Ross, and the Endowment Board of Trustees. While we are gratified by their recent allocation of $50 million for farmworker health, we are equally convinced that CIRS' continued involvement can help insure the investment's maximum benefit to the farmworkers of California.

Overall, TCE support has allowed CIRS to amass an unprecedented knowledge base in farmworker health and develop an incipient cadre of technical staff willing and able to contribute to the success of the TCE farmworker initiative. Ongoing support will insure that these assets will continue to grow and be creatively channeled.

The research synopsis: Prior to outlining the specific goals and objectives of the proposed research, we would like to outline the larger framework for this long-term research and evaluation process. The terms Phase I, Phase II, and Phase III represent distinctions between qualitatively distinct research activities that, in general, correspond to a logical progression over time. Each successive stage builds on the previous, seeking to tie research outcomes to the implementation of health care improvements for farmworkers. The long-term goal is to create a cadre of researchers connected to the community and poised to help in the implementation and evaluation of farmworker healthcare projects.

Phase I is characterized by extensive survey field work along the lines of the BHS and CAWHS surveys. These surveys yielded rich information about the demographics, employment practices, and health care outcomes of farmworkers. Inference of results is generally dependent on the use of statistical analysis. The strength of these extensive surveys is their ability to capture and describe health outcomes. In other words, they provide a population-based window on **what** is happening among farmworkers in California and, in the case of the BHS, at the binational level as well.

The aim of **Phase II** is to build on our understanding of health outcomes established in Phase I. While the statistical analysis of Phase I survey research provides a sound foundation for population-based health outcomes, it is largely mute in respect in its ability to tell us **how, why, and under what circumstances** those outcomes occur. For example, the CAWHS reveals a number of arguably dysfunctional health-related behaviors on the part of farmworkers, e.g. approximately 70% fail to avail themselves of over the counter medication for chronic musculoskeletal pain. The health care utilization patterns uncovered by both surveys also suggest that farmworkers are 'turned off' by certain elements of the U.S. health care system. Phase II research responds to this need for detailed explanatory and process-related data by focusing on personal interviews with farmworkers and health care providers in select 'case study' communities. This allows us to systematically pose questions as to why, for example, they do not use aspirin or ibuprofen for chronic pain. If carried out rigorously with protocols designed to systematize the gathered information, this qualitative data will provide invaluable guidance for the development of HEP programs and the

development of provider best practices. At the same time as the case study work is carried out, the research team will be engaged in other complementary activities. Extensive sound and video recording of appropriate interviewees will be carried out to be used in curriculum development for HEP and provider training. Also, natural leaders among the farmworker communities and innovative program leaders among the providers will be identified so that they can be tapped in the next phase of the proposed work of the Endowment.

Phase III entails ongoing research and evaluation activities directed towards supporting the implementation of on-the-ground programs aimed at improving farmworker health. It will allow us, as researchers armed with solid technical skills and contacts to the farmworker and provider communities, to assist the design and implementation of innovative TCE-funded program models that can bring appropriate health services to farmworkers. We expect that the results of our Phase II research into the culturally multifaceted dimensions of farmworker health care access and delivery will also allow policy makers to design better policies and permit experimentation and expansion of promising and innovative programs.

The emphasis in this document will be on near-term activities related to ongoing Phase I efforts and subsequent Phase II activities that build on the Phase I findings. However, we also realize that it may be necessary to move rapidly toward Phase III efforts to assist TCE program design and implementation even though we are still engaged in Phase I and Phase II efforts. So while the phase nomenclature suggests a logical progression in time, the multiple geographic and programmatic entry points for farmworker health efforts will make it almost certain that CIRS will be simultaneously engaged at all three levels in one place or another.

Prospective Goals and Objectives

Our macro-level goal is twofold: We seek to (1) continue to build on our current contacts to the communities and our empirical foundation of knowledge of farmworker health, especially knowledge related to what the problems are, why they are caused, and how they can best be addressed, and (2) in the process we hope to help The California Endowment maximize the social capital outcomes of its $50 million

investment over the next five years. Listed below are a series of related goals and objectives that are subsumed by this larger mission. The remainder of the document will provide additional discussion regarding suggested objectives associated with each goal.

Goal 1: Through a process of ongoing coordination and consultation with TCE staff, insure that CIRS research findings generated by all research phases are available for incorporation into the foundation's process of program development, implementation, and evaluation.

Objective A: Community profile mapping of potential TCE program sites drawn from universe of CAWHS and BHS sites. Key elements include demographic profiles/diversity/binational networks, care provider landscape, local commodity mix, existing social capital and interest in the project among the farmworker community.

Objective B: Carry out the social mapping of the predominant binational networks in the prospective communities.

Objective C: Continue Phase I analyses of the BHS and CAWHS datasets pursuant to new insights relevant to TCE program development and with a focus on the group of potentially participating communities.

Objective D: Design protocols for case study work focused on chosen communities. Begin implementation of case study protocols as necessary to inform planning TCE process.

Objective E: Begin the reciprocal process of testing questions by comparing the case study data base with the survey data base to inform TCE planning process.

Objective F: Produce a summary report for TCE in fall 2001 that provides a profile of each prospective community, highlighting key needs, attributes, and social infrastructure for farmworker empowerment.

Objective G: On an as needed basis, provide Phase III assistance in TCE program design, implementation, and evaluation for the target communities.

Goal 2: In an effort to build on the CAWHS and BHS findings and **give fuller voice** to California agricultural workers, we propose a process of systematic, in-depth interviews with farmworkers in selected CAWHS and BHS communities. This process of collection, rendering the data into analytic form and analysis is planned for the first year of the project. (Approximate timeline is coincident with Phase II.)

Objective A: Gather explanatory data from the farmworkers themselves regarding their health problems, access to care constraints, experiences in Mexico, lifestyle constraints, health education knowledge base, and their expectations regarding health and health care.

Objective B: Translate knowledge gained from Objective A into culturally appropriate forms and organizational pathways that helps farmworkers help

themselves, e.g. findings that aid in the effective development of HEP programs that are culturally-sensitive and make full use of existing cultural resources such as hometown associations and informal binational networks. Natural leaders in the communities with whom the TCE may want to cooperate will be identified.

Objective C: Seek further insight into institutional barriers to farmworker health related to MediCal, Healthy Families, etc. from the workers' perspective.

Objective D: Assist the Binational Health Initiative by insuring that insights gained in Objective A, B and C can be integrated into the development and implementation of its promotora program in selected communities.

Goal 3: Gain a comprehensive, qualitative understanding of the key issues facing health care providers in their efforts to deliver care to farmworkers via a coordinated series of interviews with health practitioners in selected communities.

Objective A: Conduct systematic intensive interviews with health providers regarding their assessments of the barriers to more effective treatment of farmworkers, both in respect to supply (cultural) and demand (institutional) constraints.

Objective B: Assess how and/or whether those barriers differ across health provider categories, e.g. private doctors, public clinics, hospitals.

Objective C: Seek further insight into institutional barriers to farmworker health related to Medi-Cal, Healthy Families, etc. from the provider perspective.

Objective D: Identify and assess a range of provider best practices that can serve as the nuclei for a range of programmatic interventions via TCE, other funders, and through new public policy.

Goal 4: Again in coordination with TCE staff, help facilitate an ongoing process of health education, public awareness, and policy development directed towards workers and their binational networks, provider networks, policy makers, and, to the extent possible, the public at large.

Objective A: Based on a multi-media model, provide input for a health provider curriculum based on the best practices identified in Phase II.

Objective B: With a particular focus on issues related to chronic disease prevention and treatment, assist in developing a multi-media model with a video core directed toward agricultural worker HEP programs.

Objective C: Develop functional, ongoing relationships with selected binational hometown associations that provide support to farmworkers in order to explore the potential of these associations for HEP programs and improved access to care.

Objective D: Assist in the development of video documentaries that are intended to expand public awareness of the contradiction between (1) the importance of farmworkers to the California economy and U.S. food security and (2) the deplorable living conditions and health problems faced by this population.

Objective E: Work to develop new, innovative public policy models, including a comprehensive food system analysis of the farmworker health issue.

Discussion of Goals and Objectives

This section provides additional background detail regarding the goals and objectives described above, their interrelationships, and temporal sequence.

Goal 1--Assistance to TCE: In respect to timeline, Goal 1, assisting TCE program development, will be the central focus of CIRS activities over the course of the next six to ten months. During that period, CIRS will be engaged in a process of profiling approximately 15 farmworker communities that are drawn from the CAWHS and BHS sites from which the TCE will make its final selection. Given the targeted nature of the Endowment's investments in farmworker health, this profiling process will allow the foundation to make more informed judgments regarding just how to balance community needs and the self-empowerment potential of the resident farmworkers with its programmatic goals, objectives, and resource constraints. Integral to this process will be a conscious effort to fully explore and characterize the binational dimension of these communities in order to better understand the cultural background of the farmworker population. Establishing dialogue with informal or formal binational organizations regarding health-related issues will also be undertaken.

During this period, CIRS will be engaged in a simultaneous process of Phase I and Phase II activities. To this end, Phase II activities such as the collection and analysis of case study field notes and the utilization of the survey data bases to test questions raised by the field work will be initiated as required by the TCE planning process. (See Appendix A: Articulation of Phase I and Phase II Methods, for further details.) Pursuant to this goal, we anticipate the preparation of an internal CIRS briefing document in fall 2001 to assist TCE in its program development. We anticipate a comparable process of articulation between CIRS research and TCE program development as the farmworker health initiative unfolds over the next five years. Coincident with this process of program maturation will be an increased emphasis by CIRS on Phase III activities.

Goal 2—Give Voice to Farmworker Communities: The CIRS will conduct extensive interviews with a significant number of key informants from among the farmworker communities. This process will begin during the early stages of the planning process and will continue for approximately one year including the gathering of the field notes,

their indexing and organization, and the analysis of the case study data. The focus of these interviews will be to understand how community experiences in Mexico and in the United States clash with the objectives of improving farmworker health.

The farmworker (and ex-farmworker) informants will be taken within the TCE selected locations and will be chosen in large measure from the leading binational networks which compose each of these farmworker communities. Namely, each California locale will be socially mapped back to the major sending areas which send their sons and daughters to the given locale. We estimate that 5 sending networks in each locale will be sufficient to capture a large and representative proportion of the locale's population. CIRS interviewers will conduct their interviews within the natural boundaries of social networks in order to slowly build rapport with the community. In some cases, visits to Mexico back to the sending areas will be necessary to speak to groups of individuals who have returned home and to understand the health care environment from which the network has migrated. The natural leaders of these communities to be tapped during Phase III will be identified as part of this goal.

In support of the effort to understand the institutional and attitudinal barriers to the access to and receipt of appropriate health services in its full binational context, the CIRS will make reference to the extensive body of survey data at its disposal. Issues brought to our attention as a result of our analysis of the field work will be cross checked using the large sample sizes in the survey data bases.

Using the CIRS-generated information, the TCE can guide program development which uses the natural social structure of the community and incorporates culturally sensitive approaches into health programs. A particular CIRS emphasis in this regard will be to coordinate closely with the Binational Health Initiative (BHI) so that the Promotora program designed by the BHI achieves maximum effectiveness.

Goal 3—Improve the Interface with the Provider Community: The CIRS will conduct an extensive set of in-depth interviews with a series of health care professionals who interact with farmworkers in the TCE-selected communities. These individuals will include doctors, nurses and intake and support staff in various settings including emergency wards, for-profit clinics and private doctors, public clinics, and

hospitals. Specialist MDs, including psychiatrists, will be interviewed in hospital and clinic settings. In addition, individuals who perform outreach to the community including psychologists, social workers and promotoras will be interviewed. The Medi-Cal, Healthy Families and other health insurance programs in the locales will be probed for information. Again, this process will begin during the early stages of the planning process and will continue for approximately one year including the gathering of the field notes, their indexing and organization, and the analysis of the case study data. The focus of these interviews will be to uncover the institutional barriers to change.

A major part of this goal is to identify leaders in the provider community be they administrators, health delivery individuals or others who can help TCE in the implementation stage of its program. The success of the TCE program will be greatly enhanced by the formation of early and effective relationships with progressive members of the provider networks and the insurance service delivery system.

Goal 4--Research-Based Media and Policy Development: One of the most apparent findings of the CAWHS and BHS studies is the compelling need for more effective training of the provider community and dissemination of health education information among the farmworker population of California. As described in the Problem Statement, the combination of lack of insurance, extremely low wages, and risk for chronic disease place an extremely high premium on the development of effective HEP media that are capable of bridging the current gulf between binational cultural expectations and the structural realities of the U.S. health care system. Our intent is to actively integrate a process of video-based documentation of CIRS research activities that can provide both conceptual input and actual footage to be incorporated into HEP videos. In a parallel process, video records or recreations of farmworker interviews and focus groups can serve as an important element in disseminating a provider curriculum based on best practices for farmworkers.

The proposed CIRS budget includes funding for Non-Profit Communication of San Francisco. Led by Jim Bracken, NPC specializes in providing video technical support to non-profit organizations as means of enhancing their larger service missions. Bracken was instrumental in assisting CIRS capture footage of the CAWHS field interviews and

has worked closely with a number of farmworker/immigrant services providers via the Central Valley Partnership for Citizenship. Bracken assistance will be specifically directed towards directing Phase II findings towards farmworker communities and frontline CBOs. These video productions hold the combined promise of health education and grassroots mobilization around issues of farmworker health and housing.

In a similar manner, these media efforts can be targeted toward the general public as well. CIRS is currently working with Joyce Mitchell, an independent documentary film producer, on her efforts to create a video documentary on farmworker health. Recent opinion polling data conducted by RCAC as part of its administration of the TCE-funded Agricultural Worker Health and Housing Program indicates that only about 50% of Californians know anything of substance about farmworkers. However, approximately 80% of those who do indicate a willingness to pay higher food costs in order to provide better health and living conditions for farmworkers. This data is promising in respect to public policy development. But also underscores the need for more concerted efforts in educating the California public about the important contribution of farmworkers to our abundance of low cost, healthy food, e.g. fresh fruits, nuts, and vegetables. Joyce is currently pursuing TCE funding for such a documentary and CIRS intends to assist in that effort if it is funded.

CIRS is also currently working on a long-term project in policy development that also has its origins in the RCAC AWHHP. As member of the AWHHP Advisory Committee, David Lighthall prepared a briefing essay (also published in CIRS' research bulletin, Rural California Report—see Appendix B) that makes a theoretically-based argument for addressing the problems of farmworker health and housing from a food system perspective. The crux of the argument is based on the structural weakness of agricultural producers within the food system, i.e. their general inability to pass on costs due to the bid market structure of agricultural commodity sales. While producers can experience periods of high profitability, entry by competing firms in other regions and nations is relatively rapid in agriculture. This problem has been delayed somewhat for more specialized California growers relative to other regions such as the Corn Belt. But recent evidence of falling or weak commodity prices for a wide range of once profitable commodities reflects the progressive entry of new Third World competitors. Under

these circumstances it is extremely unlikely that California's agricultural producers are going to be willing to bear even partial responsibility for providing health insurance for their seasonal workers.

A food system-based analysis enlarges the scope of public responsibility for farmworker health and housing beyond the domain of employers and extends it to all California food consumers, food retailers, wholesalers, processors, and shippers. Well established and accepted economic theory posits that the poor health of farmworkers is in fact a negative externality within the food system, i.e. a cost of production not included in the final purchase price of the commodity. As such, the food system serves as a fertile environment for the creation of fiscal mechanisms for funding health insurance and/or housing benefits for farmworkers. The strong evidence of consumer willingness to pay found in the RCAC poll provides further encouragement for this line of policy development.

In conjunction with RCAC AWHHP staff and Juan Aranga of the Center for Community Advocacy, Salinas, David Lighthall helped conduct a Food System Symposium at UC Davis on Dec. 5, 2000. At the symposium representatives of farmworker advocacy organizations and growers came together to hear several research presentations, including a discussion of the food system model. Overall the response was quite favorable. Growers in particular welcome the recognition of their market weakness (for those who are not vertically integrated). A food system approach to funding farmworker health and housing is natural vehicle for the development of a potent coalition between the agricultural interests, farmworker advocates, and the rural health care system. The opportunity for success in this effort would be greatly enhanced by the leadership and support from TCE. CIRS sincerely believes that achieving the goal of a publicly-funded program of health insurance for farmworkers over the next five years is in fact a legitimate, achievable goal. Towards this end, other regionally-based Food System Symposia are being planned, including one in June at Salinas. Included in this process will be the commissioning by RCAC of further empirical feasibility analyses for a food system-based fiscal model for health insurance funding.

Budget and Staffing Rationale

The proposed first year funding is presented in Appendix C. This budget will enable CIRS to achieve the following: First, it will insure that current staff activities related to the CAWHS and BHS will continue without interruption and at even higher level than present. Second, it contains additional funding for field interviewers at levels that will be required by the ambitious Phase II objectives. And third, it contains funds that would enable CIRS to hire a development director.

The justification for requesting funds for a development director is based on several factors. CIRS has struggled as an organization for most of its existence, partly because the organization was never able to assemble a cadre of Ph.D. level researchers. Nor was (or has) it ever able to make the structural leap to hiring a development director. However, several changes occurred in the several years prior to the retirement of Don Villarejo. A new renewable funding source was presented by the Irvine Foundation's Central Valley Partnership for Citizenship, a consortium of immigrant service providers. CIRS has acted as a research support arm of the CVPC since 1997. In 1998, CIRS received funding for the CAWHS and BHS surveys. The successful administration of these surveys and the compelling nature of their findings has driven forward the process of collaboration with TCE and substantially enhanced the reputation and credibility of the organization.

Equally if not more important, is the addition of Rick Mines and Ken Kambara to CIRS staff. Both are stellar additions to CIRS and have significantly increased its research capacity. In addition, CIRS also now possesses two of the most comprehensive datasets on farm worker health in the nation. As a net result of these changes in research capacity, CIRS is in an excellent position to pursue additional research funds from government and other foundations. Unfortunately the lack of a development director precludes the exploitation of this potential. Broadening CIRS' funding base for farm worker health research would ensure that (1) the existing data will be fully used and (2) the potential synergy between parallel research projects in this field can be tapped as well.

The organization has arguably reached a critical juncture where continued growth is constrained by staffing limitations. Responsibility for development is currently the responsibility of David Lighthall but this clearly interferes with his numerous other roles including principal investigator on three non-TCE research projects. While the addition of a talented development director would enable CIRS to realize its potential as a research organization, it would more importantly mean that the broad range of non-profit organizations who speak for farm workers and the farm workers themselves could benefit from an even larger level of empirical support for their efforts.

Concluding Comment

While the challenge of significantly improving the health and living conditions of farm worker health over the course of the next five years is considerable, CIRS is in many ways more hopeful than ever. The CAWHS and BHS have provided an empirical foundation for advocacy that, we are told time and time again, has never existed. Because of CIRS' special niche as research organization that is closely articulated with stakeholders struggling with serious, real-world issues, it has been extremely gratifying to be in a position to shed light on this pressing issue.

We intend to press forward, using the facts to make a larger, two-fold argument. The first is a moral one and needs no explanation. The second argument, of equal strength and complementary to the first, is an economic one. It is grounded in the inescapable fact that real but preventable health care costs are not only potentially disastrous to poor households, they sap communities of desperately needed capital, capital that might otherwise be used for education, housing, business formation. By extension, they place a collective drain on county and regional health care systems and act to drive away care providers. By whatever measure, California's rural regions are currently in poor economic shape and burgeoning health care costs pose a serious threat to efforts aimed at economic revitalization. In light of these concerns, The California Endowment's continued leadership will be a prerequisite for significant public policy efforts that offer real solutions.

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Appendix A: Articulation between Phase I and Phase II Methods

Methodology

The research design will be iterative and use both qualitative and quantitative methodologies, where each reciprocally informs analyses of the other. For example, gaps in the quantitative survey findings will initiate further probing into relevant health questions by rigorous qualitative case study fieldwork. Additionally, insights from the qualitative findings will initiate new analyses of the survey data. Such a dialogue is important as it plays upon the strengths of each method—the generalizability of the survey and the context specificity of the qualitative case study fieldwork. Hypotheses on farmworker health can be generated by one method and cross-checked by the other. The objective is to provide communities with the most complete picture of health needs possible and to guide strategic implementation of outreach programs.

Survey Data

We will have three data sets at our disposal, the CAWHS, BHS, and National Agricultural Workers Survey (NAWS), that are based upon large-scale sociological survey research on California and U.S. farmworkers. The surveys have complementary advantages. The BHS focuses on the binational aspects of healthcare and includes data on former and current farmworkers. The CAWHS has physical medical examination and complete blood count (CBC) data on current farmworkers in seven communities located in the major farm areas of California. The NAWS data has a representative sample of current farmworkers in California and across agricultural regions nationally. Specific findings from the relatively small samples in the CAWHS and BHS can be extrapolated to the extensive NAWS sample to estimate the extent of health problems on a state-wide or larger geographic scale.

There will be two major tasks undertaken with these datasets. First, in-depth quantitative modeling will profile health-needs geographically, combining information on demographics, attitudes towards health care, cultural norms, and health access behaviors. These analyses will be tailored so that they cover both overall patterns and those specific to geographic areas, in order to facilitate use by TCE, practitioners, policymakers, and researchers who are working in a given community or region. These

analyses will also help to generate the research protocols in the qualitative case studies by directing inquiry towards the "gaps" in knowledge (*e.g.*, farmworker conceptualizations and coping strategies with respect to musculoskeletal pain). The second major task is to quantitatively test hypotheses generated by the qualitative case studies, as that data becomes available and is analyzed.

Case Study Data

Case study data is necessary to create fine-grained information upon questions of farmworker health, with respect to work conditions in the fields and the problems they face in obtaining health care. The case study approach was piloted by CIRS in Monterey, Santa Cruz, and Tulare Counties in January of 2001. The research design consisted of open-ended interviewing of both farmworker families and healthcare professionals. To facilitate confidence-building, workers were identified by being members of a given Mexican sending network within a certain California community (e.g. Cuxpala, Zacatecas living in Cutler); the providers were identified as giving services to farmworkers in the location. The research team queried respondents, who elaborated on the issues they face regarding healthcare, identified consistencies and inconsistencies of responses, and probed areas of discussion for further detail and elaboration.

The next phase of the research will build on this pilot. The focus will be both binational and multicultural providing in-depth detail on the specific health context of the farmworker communities. There will be detailed descriptions of the major issues of farmworker health from the perspectives of the farmworkers, employers, intake workers, and health care professionals. These descriptions will then be translated (when applicable), transcribed, and analyzed. Patterns of phenomena will be identified, defined, and dimensionalized, providing a matrix of findings. This, in turn, will fuel hypothesis development and drive further analyses of the quantitative data in the CAWHS, BHS, and NAWS. This method will allow the researchers to create a Phase III outreach model which can facilitate the training of providers, the health education of communities, and provide a universe of options for policy development.

Appendix B:

A Food System Approach to Farmworker Health

by David Lighthall, Ph.D.

Executive Director, California Institute for Rural Studies

Since the Grapes of Wrath was published in 1939, California's image as a progressive, healthy place to live has been tarred by the harsh realities of its agricultural work force. Despite a period of optimism for farmworkers and their advocates in the 1970s following a string of successes by Caesar Chavez and the UFW, the 1990s witnessed a parallel erosion in the strength of the union and workers' wages (just slightly above minimum wage). Adding insult to injury, Proposition 187 has had the net effect of further reducing non-wage state benefits to undocumented workers. Despite these negative trends, the shift towards high-value, more labor-intensive agricultural commodities, the passage of the Immigration Reform and Control Act in 1986, and the persistence of grinding poverty in Mexico has increased California's farmworker population to an all-time high of approximately 700,000. In terms of acute need, the issues remain much the same as those facing the "Okie" migrants of the 1930s. Access to affordable health care and housing are severely lacking for a high proportion of our farmworkers. Approximately 50 per cent of these workers are not legal residents, a fact that underscores both their indispensability and vulnerability.

The nation's top agricultural state with farm gate revenues approaching $30 billion yearly, California has been locked in an unending political stalemate over who should foot the bill for farmworker health and housing costs. As I argue below, it is time for a new public policy perspective on the farmworker quandary, one built on a theoretical framework grounded in the realities of the global food system. More specifically, it is time to consider a modest value added tax within California's food system. Before I return to the mechanics of such a tax, the theoretical argument must be made.

Why is it that those making such an irreplaceable contribution to putting food on our tables consistently find themselves at the bottom of the social order? Why has there been such little progress since the Grapes of Wrath? I would argue that Steinbeck's classic itself made a critical contribution to a collective myopia about the underlying causes of farmworker injustice. The fundamental misperception lies in seeing this as a problem of agriculture when it is in fact a reflection of underlying structural forces within the global food system. The former approach sees the problem as rooted in the greed and implicit racism of growers, resulting in a consistent failure to provide decent benefits and wages. In contrast, a food system-based analysis forces us to look more broadly at growers' place within the larger food system. In simple terms the food system includes agricultural input suppliers (seeds, chemicals, etc.), producers (farmers/growers), commodity wholesalers and shippers, commodity processors, food wholesalers, food retailers (supermarkets and restaurants), and consumers.

Within this system, social scientists ranging from Karl Marx to agricultural historian Willard Cochrane have long recognized the relative market weakness of farm producers. That weakness is rooted in several factors: First, they have very little control over the cost of production inputs such as seeds and chemicals. Most of these are produced by large corporations that have little difficulty in passing on their research and development costs to producers. Second, producers as a group are very numerous and unorganized relative to other food system firms. With few exceptions, they have never been able to successfully control the supply of a given commodity, particularly in the face of competitors from other regions and nations. Third, they are subject to the forces of nature in ways that other food system actors are not. Drought arrives, pests invade, and harvests are perishable. Fourth, with the exception of vertically integrated firms such as wineries that both grow the crop and sell a finished product, producers simply cannot pass on their costs of production like food retailers.

Proof for this theory can be found in the returns to investment in each sector of the food system: From a national perspective, farming has been consistently the lowest performing, far less profitable than the chemical or retail sectors. Having said this I must also emphasize that many California producers, particularly the large growers, experience higher profits and less risk resulting from subsidized irrigation water, a

climate suitable for high value crops such as grapes, and a steady supply of cheap labor from Mexico. But the fact remains that most growers cannot pass on new production costs to commodity brokers, food processors, or supermarkets, whether they be in the form of new environmental restrictions on pesticide use, health care benefits, increases in the minimum wage, or additional housing costs for their workers. Reflecting these structural conditions, growers have fiercely (and effectively) resisted these legislative efforts via organizations such as the Western Growers Association and the Farm Bureau.

My point of emphasis, however, is not, I repeat, not to take California growers off the hook—they need to ante up their share. But if we really care about the plight of farmworkers we have to face the facts. Efforts to "force growers to take responsibility" for low wages, poor housing, and lack of health benefits will face concerted political resistance and would arguably fall to this governor's veto pen. I argue for an alternative pathway to public policy, one that recognizes food system realities yet refuses to accept the immorality of farmworker mistreatment. Underlying this approach is the premise that all actors in the food system bear a measure of collective responsibility for the plight of farmworkers.

At the heart of my argument is the simple fact that the price Californians pay for our food does not capture the full costs of its production. Two major health studies of nearly 1,500 current or former California farmworkers conducted by CIRS in 1999 have made it painfully apparent to us that there is a great deal of unattended suffering on the part of farmworkers. Many are no longer capable of working due to chronic job-related disabilities. Given the incalculable health benefits we gain from the food produced in California fields as well as the tremendous private wealth generated by the state's food system, there is a compelling case for assuming some form of collective responsibility for these external costs. Acceptance of this premise would help break up a longstanding political logjam, thus paving the way for new public policies and revenue sources capable of drawing an end to California's black mark of farmworker injustice.

Figure 1: CONCEPTUAL FRAMEWORK FOR UNDERSTANDING THE HEALTH OF FARMWORKERS