

PD-ARN-039

N42  
Sum (3/02/92)

90859

Development Associates, Inc.



**NARCOTICS  
AWARENESS  
AND EDUCATION  
PROJECT**

**Summary of Accomplishments**

May 9, 1990 - October 31, 1992

Submitted to:

**Mr. Tom Moser**  
Creative Associates, Inc.

November 13, 1992

**NARCOTICS AWARENESS AND EDUCATION PROJECT  
SUMMARY OF ACCOMPLISHMENTS**

**BOLIVIA**

**Policy Dialogue**

- Designed USAID Drug Education and Prevention Program.
- Project Paper completed, coordinated with USEMB agencies, approved.
- Coordinated Project Agreement with GOB.
- Established and participates in Project Coordinating Unit involving USG, GOB, and non-governmental organizations, as well as other donor agencies such as UNDCP and UNESCO.
- Conducted and analyzed results of public opinion study on Alternative Development for GOB.
- Briefed USG country team and GOB officials on results of public opinion study.

**Institutional Development**

- Qualification for and attainment of PVO status for CESE.
- Development of organizational structure and procedures for SEAMOS and CESE.
- Development of administrative, financial management, and operational procedures for host country entities.
- Staff development and training.
- Team building, staff and project coordination.
- Design, establishment, and maintenance of documentation center.

**Technical Assistance**

- Development of Cooperative Agreements between USAID and host country entities--DINAPRE, SUBDESAL, SEAMOS, CESE.
- Development of Action Plans by the above.
- Design, use, and evaluation of media, media campaigns, message development.
- Design, implementation, and evaluation of drug awareness activities.
- Development and use of radio in rural settings.
- Design of alternative communication methods.
- Design and selection of audio visual equipment.
- Audio visual productions.
- Research study design and instrument development, data analysis, report writing.
- Design and conduct of ethnographic research studies.
- Design and conduct of rural household surveys.

## **Training**

- Institutional development and strengthening.
- Use of focus groups.
- Use of database software and application to documentation center.
- Design and evaluation of drug awareness and education activities.
- Communication methods.
- Social marketing techniques.
- Research design techniques.
- Basic statistics and use of SPSS software.
- Data analysis.
- Numbers trained: By NAE staff/consultants--50; By host country organizations--10,169

## **Research**

- Study design and instrument development for national drug prevalence study.
- Pilot test study instrument.
- Data collection, analysis, and dissemination of results in coordination with PROINCO/DINAPRE, GOB research entity.
- Conduct of ethnographic study using focus groups, life histories, and participant observation.
- Pre-test of television documentaries using focus groups.

## **Information Dissemination**

- Translation of Communication Trainers' Manual into Spanish for use in training sessions.
- Report on results of drug prevalence study disseminated to interested individuals and institutions.
- Publication and dissemination of newsletter by SEAMOS.
- Development and dissemination of booklets, pamphlets, and manuals on drug abuse prevention by CESE.
- Development of Trainers' Manual on use of SPSS software.
- Provision of basic starter set of drug information materials to all four organizations.
- Placed on mailing list to receive information from National Clearinghouse on Alcohol and Drug Information and other organizations.

## **Evaluation**

- Evaluation incorporated into host country organization action plans and drug abuse prevention activities.
- Internal evaluation of all four components of USAID/Bolivia Drug Education and Prevention Program planned for December 1992.

## **BRAZIL \***

### **Policy Dialogue**

- Conducted needs assessment in Sao Paulo and Ceara States.
- Designed State Training Program for government officials of Sao Paulo State and the State of Ceara.
- Collaborated with government officials in developing state-wide drug awareness and prevention strategy and action plan.
- Coordinated with USAIDREP/Brazil, USIS/Brazil, UNDCP Representative, UNESCO, and the French International Cooperation Affairs Officer to review their drug awareness and prevention plans for Brazil and to encourage "other donor" involvement in drug abuse awareness and prevention activities in Brazil. All parties (other donors) expressed interest in cooperating with the USAID-funded training project being implemented by NAE.
- Worked with the President of the Fundo Social de Solidariedade do Estado de Sao Paulo (FUSSESP) to assess the progress of the NAE program in Sao Paulo, and explore the potential for participation by other international donors in advancing the cause of drug abuse prevention in Brazil.
- Government and private sector collaboration established; joint efforts underway.

### **Institutional Development**

- Staff development and training.
- Team building, staff and project coordination.
- Design and development of appropriate training programs.
- Design and implementation of 10 separate agreements for training of trainers and community-based workers in the states of Sao Paulo and Ceara.

### **Technical Assistance**

- Design of State Drug Prevention Program and establishment of appropriate training goals and objectives.
- Design relevant training programs.
- Design and development of Logo and slogan (Life is a Challenge) for Sao Paulo's Permanent Drug Abuse Prevention Program.

### **Training**

- Design, development, implementation and evaluation of a broad-based pilot project in drug abuse prevention for the state of Sao Paulo.
- Program development and project design.

- Design and evaluation of drug awareness and education activities.
- Communication methods.
- Social marketing techniques.
- Numbers trained: By NAE staff/consultants--93; By host country organizations--in excess of 2800 supervisors, teachers, and directors.
- Local PVO, COMUNICARTE, has trained FUSSESP (State government agency) staff in drug awareness and education; has also provided in-depth briefings for local media personee.

### Information Dissemination

- Translation of Communication Trainers' Manual into Portuguese for use in training sessions.
- Television spots and documentary prepared by COMUNICARTE under contract with NAE; two television stations have developed and aired special programs on drug use among adolescents.
- Information Bulletin, Orientation Manual, and a pamphlet on Drug Abuse, prepared and distributed by FUSSESP under the direction of the First Lady of Sao Paulo.
- State-wide (Sao Paulo) drug awareness campaign during month of October 1992.

### Evaluation

- Evaluation incorporated into host country organization training plans and drug abuse prevention activities.

\* The Brazil buy-in scope of work emphasizes the need to involve host country institutions in all NAE efforts and to encourage host country counterpart contributions. This has been extremely successful to date. For example COMUNICARTE alone, as part of its task to inform, orient, and educate the media, has garnered the following counterpart contributions:

COMUNICARTE, (PVO) Logistics, telephones, etc.	\$4,000
FUSSESP (State Govt)--Air Fares, per diem, etc.	\$5,400
Mass Media (Private)--Air Time	\$85,000
TOTAL TO DATE	\$89,400

## **COLOMBIA**

### **Policy Dialogue**

- Discussions with USG and selected Government of Colombia (GOC) officials in preparation of draft Project Paper on drug awareness and prevention.

### **Institutional Development**

- Potential private voluntary organizations (PVOs) to carry out drug awareness activities identified.

### **Technical Assistance**

- Development of draft Project Paper.
- Action planning for Colombia Partners

### **Evaluation**

- Mid-term evaluation of USAID-funded drug awareness programs being implemented by the Fundación Acción Solidaria and the Colombia Partnership of the National Association of the Partners of the Americas.

## **DOMINICAN REPUBLIC**

### **Policy Dialogue**

- Conducted needs assessment; coordinated with National Drug Council and the National Directorate for Drug Control.
- Presented results of national survey of drug abuse carried out by NAE and local research firms, OMSA, ASISA, and the University of Santo Domingo at a workshop hosted by the National Drug Council. Implications of the survey for the design of future drug abuse interventions were discussed in detail.

### **Institutional Development**

- Local research firms assisted in upgrading capability to carry out drug research, including data analysis and reporting of results.
- Development of operational drug research procedures for host country entities.
- Staff development and training.

### **Technical Assistance**

- Research study design and instrument development, data analysis, report writing.
- Design and conduct of drug research studies.
- Design and conduct of rural household surveys.

### **Training**

- Institutional development and strengthening.
- Use of focus groups.
- Research design techniques.
- Use of SPSS software in data analysis.
- Data analysis.
- Numbers trained: By NAE staff/consultants--10

### **Research**

- Study design and instrument development for national household study on drug prevalence.
- Design of qualitative study on drug prevention messages.
- Pilot test study instrument.
- Data collection, analysis, and dissemination of results in coordination with OMSA, ASISA, Hogares Crea, and the University of Santo Domingo.

### **Information Dissemination**

- Report on results of drug prevalence study disseminated

- to interested individuals and institutions.  
Provision of basic starter set of drug information materials to host country organizations.

## **ECUADOR**

### **Policy Dialogue**

- Global strategy and related indicators for narcotics prevention developed for USAID/Ecuador targeted at: (1) substantially reducing demand for drugs and (2) build public support for effective government action against narcotics production, processing and trafficking.
- Assessment of institutional development status and needs of National Drug Council (CONSEP) with recommendations for future US Mission-wide involvement and assistance.

### **Evaluation**

- In-depth mid-term evaluation of USAID 4 year "Drug Information and Awareness Project" implemented by Fundación Nuestros Jóvenes, the lead national prevention agency. Institutional and programmatic recommendations presently being implemented.
- Mid-term evaluation of Fundación Guayaquil's 2 year USAID drug prevention project for micro-entrepreneurs in Guayaquil designed to combat narcotics trafficking and abuse.
- Assessment of Ministry of Education's National Drug Education Program support by USAID/Ecuador.

### **Technical Assistance**

- Institutional review and directory of Ecuadorian governmental and non-governmental organizations active in narcotics prevention, awareness and education prepared.

### **Research**

- Report on "Gender Considerations in Narcotics Data Collection Systems."

## **EL SALVADOR**

### **Policy Dialogue**

- Discussions with selected Government of El Salvador agency officials on drug awareness activities and the role of the Anti-Drug Foundation of El Salvador (FUNDASALVA), a USAID-funded PVO.

### **Institutional Development**

- Refinement of action plan for the organization
- Preparation of draft organizational five-year strategic plan.
- Development of draft outline for self-sustainability Plan.

### **Technical Assistance**

- Review of organizational communication plan.
- Strategic planning
- Action planning

### **Research**

- FUNDASALVA has taken action to carry out a study on the prevalence of drug use in the Capital, San Salvador.

### **Evaluation**

- In-depth assessment of FUNDASALVA First Year Action Plan to determine adequacy with Cooperative Agreement between USAID and FUNDASALVA.

## **EUROPE BUREAU**

### **Policy Dialogue**

- Series of interviews and briefings with officials from the US Mission to the European Community, officials of the European Community and the Council of Europe, and Health and Education official in Poland, Czechoslovakia, Hungary, Romania and Bulgaria were conducted.

### **Technical Assistance**

- A needs assessment was conducted in five countries in Eastern Europe: Poland, Czechoslovakia, Hungary, Romania and Bulgaria. A report was produced which included: (1) findings on the nature and extent of drug use and drug related HIV infection in these countries; (2) an assessment of capabilities of existing drug prevention agencies; and (3) recommendations of appropriate forms of technical assistance and training.

### **Information Dissemination**

- Starter kits and other materials were sent to three centers in Poland, Hungary and Czechoslovakia.

## **GUATEMALA**

### **Policy Dialogue**

- Presented results of national survey of drug abuse carried out by NAE.
- Conducted needs assessment and submitted proposed plan of activities involving public and private sectors.
- In conjunction with the National Council for the Prevention of Alcoholism and Drug Addiction (CONAPAD), conducted a workshop to formulate a national strategy for drug abuse prevention and develop goals and objectives.

### **Institutional Development**

- Development of national workplan by CONAPAD.
- Staff development and training.
- Development of training capability in CONAPAD

### **Technical Assistance**

- Organizational development.
- Development of work plans.
- How to access and use mass media

### **Training\***

- Institutional development and strengthening.
- Use of focus groups.
- Training of trainers--Teachers, health workers, youth leaders.
- Community mobilization.
- Public awareness.
- Development of materials.
- Research methods.
- Evaluation.
- Numbers trained: By NAE staff/consultants--10; by CONAPAD--350 teachers, 460 parents, 97 health professionals, and 120 youth leaders.

### **Research**

- Study design and instrument development for household study on drug prevalence in three cities, conducted by Development Associates.
- Study design to do an inventory of organizations involved in drug abuse prevention activities.
- Pilot test of drug abuse prevention manuals developed for teachers in the intermediate grades.

### **Information Dissemination**

- Report on results of drug prevalence study disseminated to interested individuals and institutions.
- Provision of basic starter set of drug information materials to host country organizations.
- Educational Retreat on drug abuse prevention, culminating in a neighborhood parade.
- Distribution of two teachers manuals for intermediate grades.
- Development and distribution of an Information Bulletin.
- Establishment of documentation center in process.

### **Evaluation**

- Study design and instrument development for evaluation of the 1992 National Coordination Plan.

\* The majority of the training is conducted by local professionals under the supervision of the CONAPAD. Financial resources are provided by the NAE Project.

## **JAMAICA**

### **Policy Dialogue**

- Discussions held with Jamaica National Council on Drug Abuse and other GOJ officials, Ambassador Glen Holden, U.S. Mission Narcotics Coordinating Committee and Jamaican private sector agency officials assessing present status and future training, service delivery and research needs under current GOJ/USAID Jamaica Drug Abuse Prevention Project.
- Framework for comprehensive USAID/Jamaica project developed to fit into newly defined overall US Mission anti-narcotics strategy. Programmatic and operational components designed included: (1) communication and information; (2) early treatment; (3) program support, technical assistance and training for PVOs and NGOs conducting drug abuse activities; (4) research and evaluation; and (5) project management. The recommended project goal is: "To inform and educate the Jamaican public about the specific effects of drug abuse, and to prevent an increase in the incidence and prevalence of crack use through the establishment of a viable public and private sector information, education, prevention counseling, and early treatment program.
- Solution identified for continuing implementation of current GOJ/USAID/Jamaica Drug Abuse Prevention Project which can not be implemented through the National Council on Drug Abuse (NCDA) until issues forthcoming from recent audit report on the NCDA are resolved.

### **Evaluation**

- Mid-Term evaluation conducted of 5 year USAID/Jamaica Drug Abuse Prevention Project for which the NCDA is the primary implementing agency. This included three major program components: training, community-based efforts and development of an drug information system and data base including research activities. The implementing agencies reviewed included: the NCDA, and two PVOs: the Jamaica/Western New York Partners, and the Kingston Restoration Company.

## **LAC BUREAU**

### **Policy Dialogue**

- Needs assessment in Paraguay and design of national public/private sector drug awareness and education program, leading to USAIDREP/Paraguay buy-in to implement the program.
- Discussions with LAC officials on need for LAC drug strategy and identification of indicators to measure impact of LAC drug programs.
- Development of "Report on the Status of Drug Abuse Awareness and Prevention Activities in Latin America and the Caribbean.
- Participated in regional workshop sponsored by the Organization for American States designed to train educational system change agents and to develop an integrated drug prevention curriculum.
- Design and development of drug awareness and education project for USAIDREP/Colombia.

### **Technical Assistance**

- Review of Belize drug awareness program and preparation of training needs assessment and development of technical assistance plan.
- Conducted review of drug research capability and existing resources to carry out on-going research by PRIDE/Belize.
- Conducted needs assessment in Dominican Republic, leading to buy-in for the conduct of national drug epidemiology survey.
- Provided assistance to USAID/Jamaica in development of a monitoring system for the Jamaica/Western New York Partners; reviewed previous epidemiological studies and made recommendations for future studies; assessed feasibility of establishing overall management system for the National Council on Drug Abuse.
- Provided assistance in the design of the evaluation framework for the OAS's integrated educational curriculum project.
- Needs assessment of USAID/Ecuador requirements for cross-cutting evaluation of their drug programs. Visit led to a buy-in from USAID/Ecuador for the complete evaluation.

### **Information Dissemination**

- Translation of Dominican Republic Drug Use Study Report into Spanish.

## **MEXICO**

### **Policy Dialogue**

- The Mexican National Council Against Addictions (CONADIC) and the Mexican Association of Private Associations of Health and Community Development (FEMAP) began a dialogue that resulted in the attendance of the CONADIC's National Director of Prevention at an NAE/FEMAP program planning and evaluation workshop in early 1992. The two organizations continue to develop a collaborative relationship.

### **Institutional Development**

- Institutional strengthening includes technical assistance regarding strategies for developing proposals that can then be submitted foundations, corporate donors and other sources of funding. Additional resources for funds have been identified for FEMAP's consideration.
- Institutional sustainability is being addressed through submitting a proposal for partnership activities with a non-profit organization in the United States, as well as a proposal submitted to A.I.D. for a pilot project to market and sell drugs in the workplace programs to industry.

### **Technical Assistance**

- Needs assessment and recommendations for a technical assistance plan of action for USAID/Mexico. This plan is being implemented through FEMAP.
- Participating FEMAP sites have received on-site technical assistance regarding the following topics:
  - Drug abuse prevention skills
  - Follow-on prevention program planning and evaluation activities
  - Implementation of action plans developed by participating FEMAP sites
  - Application of an integrated software package for analysis of baseline surveys
  - Evaluation instruments
  - Institutional sustainability

### **Training**

- Drug abuse prevention planning and evaluation workshop. As a result of this workshop, FEMAP sites are re-designing their program and participant evaluation

instruments, as well as analyzing data with EPI INFO software.

- Community prevention workshop with a focus on new alliances. As a result of this workshop, one FEMAP site is planning to concentrate on testing interventions employing a holistic approach in one particular community.

### **Research**

- One FEMAP site is initiating research in a particular community to establish baseline information for future studies and comparisons.

### **Information Dissemination**

- An article describing the Planning and Evaluating Drug Abuse Prevention Programs Workshop was featured in the Winter/Spring 1992 issue of The International Drug Prevention Quarterly, an NAE publication.

## **PANAMA**

### **Policy Dialogue**

- National Assembly's Commission on Narcotics began regular meetings with Cruz Blanca, National Drug Prevention Council, relevant GOP agencies and PVOs to undertake task of developing a comprehensive national prevention plan.

### **Institutional Development**

- Strategic Development for Cruz Blanca Panameña (Panamanian White Cross), lead prevention agency in Panama including: new mission statement, definition of long-term institutional objectives.
- Institutional Strengthening including detailed plan of action for Cruz Blanca's new role. Plan encompasses changes in corporate statutes, role of Board of Directors, organizational structure, administrative and financial management systems and procedures and human resource development.
- Sustainability plan developed for Cruz Blanca, including both institutional and income generating programs. Follow on activities implemented thusfar have generated \$60,000 in one campaign, initial contacts with Inter-American Development Bank for a micro-enterprise project for at risk youth, the European Community and the International Development Agency of Spain.

### **Technical Assistance**

- Needs assessment and recommendations for 2 year plan of action developed for USAID/Panama. This plan is presently being implemented through Cruz Blanca.
- Drugs in the Workplace program framework developed and presented to Cruz Blanca, President of Panamanian Businessmen's Association (PBA) and Texaco Panama. This is presently being implemented by Cruz Blanca with PBA, Texaco and six other companies.
- Coalition building process began with Cruz Blanca, Ministries of Health and Education, University of Panama, and civic organizations for new programs and greater resource leveraging.

### **Training**

- Evaluation workshop for Cruz Blanca program and administrative managers. As a result of training Cruz

Blanca has initiated an intervention research program for a pilot school-based program.

- Survey supervisors and field interviewers trained.
- Cruz Blanca Director of Public Relations trained in Workshop on Communication and Prevention held in Paraguay. Most recent application of communication techniques in October Red Ribbon Campaign has generated 1 television spot, 11 radio PSA's, one 16 page newspaper supplement, 6,000 posters, 50,000 mail flyers, 5,000 bumper stickers, 3,600 T-Shirts, press kits, and a closing ceremony with 50 correspondents, directors and owners of Panamanian mass media, USIS and USAID.
- Cruz Blanca's Manager trained during observational visit to Washington. As a result of this trip, Cruz Blanca has offered to host a Latin American Regional Conference/Workshop on Drugs in the Workplace in June 1993.

### **Research**

- First Survey on Drug Prevalence and Attitudes in Urban Panama conducted with Centro de Estudios Latinoamericanos (CELA), a research institute affiliated with the University of Panama. Survey was also translated into Spanish.

### **Information Dissemination**

- Two Public Presentations in Panama City and Colon of findings of prevalence survey to over 360 representatives of national and international mass media, government agencies, national assembly, PVOs and business associations. Press backgrounder kits prepared and distributed at both events. Press coverage of findings of survey have continued for six months to date with most recent inquiry from Miami Herald in November 1992.
- Survey on Drug Prevalence and Attitudes in Urban Panama published both in Panama (in Spanish by National Assembly) and in United States (in English).
- Main findings of prevalence survey published and widely disseminated in Panama by National Assembly and Cruz Blanca for public at large.
- Special Report on "The Role of Applied Research in Public Awareness and Policy Development" published in English.

## **PARAGUAY**

### **Policy Dialogue**

- An NAE team designed a two-year Paraguay Narcotics Awareness project in 1990 to develop a national drug awareness program to be implemented through the Ministry of Health and non-governmental organizations. In 1992, a second detailed action plan for USAID/Paraguay was developed.
- A National Workshop on the Design of the National Drug Abuse Prevention Strategy was held in April 1992, through the sponsorship of the Ministry of Health. Twenty-one participants from 13 public and private sector organizations attended. This event resulted in the identification of strategic intervention priority areas and the formation of a GOP-NGO working group to begin work on a national prevention plan. This is especially significant given the recent emergence of democracy in Paraguay after decades of dictatorship.
- Through what is now Project Marandú, the NAE Project has assisted all relevant GOP agencies and private sector organizations to develop a public-private partnership and to prepare a national prevention plan. As a result of this process, a formal "Advisory Prevention Coordinating Council" has been formed from the above mentioned working group to work with the Executive Secretary of the National Anti-Drug Secretariat (SENAD). The Executive Secretary of SENAD has the rank of Minister of State and reports directly to the President.
- An umbrella body of non governmental organizations involved in drug abuse prevention activities has been formally established with Project Marandú as the Secretariat.
- Project Marandú has conducted a seminar on drug abuse issues for members of congress.

### **Institutional Development**

- The NAE Project has provided assistance in the design and development of an appropriate organization (including structure, procedures, staffing, etc.) to mobilize support for and unify national prevention efforts. This organization has developed into Project Marandú.
- A strategic planning exercise resulted in the basis for long-term institutional strengthening and sustainability. This includes: (1) definition of a mission statement and

long-term objective, and (2) identification of external and internal funding sources and the mechanism for achieving financial sustainability.

- Through the initiative of an NAE team, a working group of donor agencies has been formed for the purpose of cooperation and coordination among international donors.
- A proposal framework for a three-year national integrated prevention project for UNDCP funding was prepared and presented to UNDP through SENAD.

### **Technical Assistance**

- Technical assistance has been provided in institutional development and management, drug research methodology, development of a drug information center, the design, implementation and evaluation of drug prevention programs as well as operational support. Specific prevention strategies have focused on: school based and community outreach programs integrated with a communications strategy.
- Results have produced "teaching guides" for grades 5-8 of the Ministry of Education's school system. These guides provide detailed suggestions to the teacher for integrating drug education into the regular curriculum.

### **Training**

- A three-day workshop on Communication Strategy Design conducted for 25 participants from GOP agencies and NGOs.
- A six-day Workshop on Communication and Drug Abuse Prevention conducted for 33 participants from public and private sector agencies. Focus groups and a public opinion and attitudinal survey in an Asunción target community were conducted to develop a common theme and messages for the production of radio PSAs in Spanish and Guarani, TV spots, posters and other printed material. Workshop products were disseminated almost immediately following the completion of the event.
- An on-going training program has reached over 50 school supervisors, 300 parents, 54 education majors, and municipal authorities throughout Paraguay.
- Fifty-four community health agents were trained in two three month drug prevention courses.

## **Research**

- First national epidemiological study of drug use conducted. A paper based on the study won the 1991 ACTA prize awarded annually for the best scientific research study in Latin America in the area of psychiatry and mental health.
- Project Marandú provided with assistance to prepare additional tabulations and analysis of drug prevalence survey data to design new interventions.
- Opinion survey of teachers was conducted.

## **Information Dissemination**

- Project Marandú and the Ministry of Health published the complete prevalence study which NAE made public at a ceremony.
- A synthesis of the drug prevalence study was published in the March 1992 issue of ACTA Psiquiatria y Psicología de America Latina, a scientific journal disseminated throughout Latin America.
- NAE staff assisted Marandú in developing plan to disseminate results of the study among the general population in Paraguay through newspapers and magazines. As a result a series of articles addressing specific issues have been published.
- A newsletter is published on a regular basis by Proyecto Marandú.
- Two videos and a TV spot produced.
- Over 350 articles published in all major newspapers and two weekly radio programs regularly broadcast
- NAE assisted Marandú to create and strengthen a national drug information and documentation center. This center is now part of two hemispheric wide information networks sponsored by the Organization of American States: the Inter-American Drug Information System and the Inter-American Information System on the Child. SENAD has also been designated it as the official national library and documentation center for the South American Agreement on Drugs (ASEP).
- An anthology of drug prevention articles is in press.