

CURRICULUM VITAE

Manuel Bayona, M.D., M.S., Ph.D.
Professor of Biostatistics and Epidemiology
Interim Director
Public Health Program
Ponce School of Medicine
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1. PERSONAL DATA

Name: Manuel Bayona Celis, M.D., M.S., Ph.D.

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Ponce, Puerto Rico
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2. EDUCATION

Ph.D. Epidemiology. Department of Epidemiology. School of Hygiene and Public Health. The Johns Hopkins University. Baltimore, Maryland, U.S.A. October 1979 - March 1985. Advisor: Moyses Szklo, M.D., M.P.H., Dr.P.H.

M.S. Biostatistics. School of Medicine, National University of México (U.N.A.M.), Mexico City, Mexico. 1977-1979. Advisor: Jose Negrete, M.D., M.S., Ph.D.

M.D. School of Medicine, National University of México (U.N.A.M.), México City. 1971-1977.

EXPERIENCE IN BIOSTATISTICS

Program Development in Biostatistics

Developed and Directed the Master in Science in Public Health (M.S.P.H.) and Doctor of Philosophy (Ph.D.) Degrees in Biostatistics and Epidemiology and Infectious Disease Epidemiology. University of South Florida School of Public Health. Tampa, Florida 1992 – 1995.

Developed and Directed the Doctor of Public Health Program (Dr.P.H.). UNT Health Science Center School of Public Health. This doctoral degree included specialties in biostatistics, epidemiology, health policy and management, and social and behavioral sciences. Fort Worth, Texas. 2000 – 2005

Developed the Master of Public Health with Emphasis in Applied Research (M.P.H.). This MPH program included an emphasis on quantitative research methods and biostatistics. UNT Health Science Center School of Public Health. Program supported by grants from the Centers of Disease Control and Prevention (CDC) and the Association of Schools of Public Health (ASPH). Fort Worth, Texas, 2004.

Curriculum Development and Teaching Biostatistics

Advanced Biostatistical Methods (Ponce School of Medicine Public Health Program, Course Number 7002)

The course covers a number of advanced topics in the statistical analysis of epidemiological and other biomedical data including analysis of variance, multiple linear regression, logistic regression, survival curves and the Cox's proportional hazards regression analysis. Sampling procedures and statistical power is also included. The identification and adjustment of confounding and how to handle and interpret interactions between variables by using multiple adjustment procedures are integral part of this course. This class includes lectures and a large proportion of practical sessions such as in-class computer exercises and homework.

Biostatistics for Epidemiologists (Ponce School of Medicine Public Health Program, Course Number 7015)

The course covers the main biostatistics procedures used by epidemiologists as they apply to specific public health problems. A number of topics in the biostatistics analysis of epidemiological data are included such as multiple linear regression, logistic regression, survival curves and the Cox's proportional hazards regression analysis. The identification and adjustment of confounding and how to handle and interpret interactions between variables by using multiple adjustment procedures are integral part of this course. This class includes lectures and a large proportion of practical sessions such as in-class computer exercises and homework.

Epidemiological Data Analysis (Ponce School of Medicine Public Health Program, Course Number 7009)

The class is designed for doctoral students who have already taken their biostatistical and epidemiological research methodology courses. The purpose of the class is to provide an opportunity to put in practice previous knowledge. The course includes (1) the selection of the adequate statistical treatment needed for different study designs and type of data, (2) the statistical analysis needed by using software such as SPSS and Epidat, and the proper interpreting and reporting of the findings.

Measures of Association and Potential Impact (General Directorate of Epidemiology of Mexico)

This course was designed as part of the graduate education of field epidemiologists in Mexico. Measures of frequency and association between disease and risk factors, statistical significance and confidence intervals are included. This course emphasizes measures of attributable risk as elementary statistical models to evaluate the impact of control measures. The concept,

calculation and uses of the endemic channel to monitor disease trends are also included. Calculations are carried out using the online surveillance software developed by the General Directorate of Epidemiology of Mexico.

Design and Analysis of Cohort Studies (University of Puerto Rico School of Public Health)

This course includes the most important concepts for the design and statistical analysis of cohort studies commonly used by researchers in epidemiology, medicine and other public health fields. It includes a review of cohort study designs, their uses, advantages and disadvantages, sources of bias, confounding and interaction, and how to prevent or minimize them. The course emphasizes the study and calculation of measures of disease frequency and association, the procedures to obtain Kaplan – Meier survival curves, and the uses of multivariate analysis using the Cox Proportional Hazards Model. The course includes lectures and practical sessions in a computer laboratory using the SPSS statistical package.

Quantitative Methods in Epidemiology (University of North Texas SPH)

This course extends the principles and concepts covered in basic and intermediate level methods in Epidemiology. It includes an in-depth discussion of study designs and state-of-the-art methods for analyzing epidemiological data. Quantitative methods covered start with the analysis of stratified data through multivariable modeling. Methodologies for ecological studies, cross-sectional, case-control, cohort and mixed designs are considered. The statistical analysis packages, SAS, SPSS and Epi Info 6.0, are used for class assignments and projects. This course features the application of methods of analysis, such as matching, stratified Mantel-Haenszel analysis, logistic regression, Poisson regression, and Cox's proportional hazards regression model. Data sets are provided to allow students to gain experience with each method considered. The main goal of this course is to allow the student to develop a better understanding of statistical computing and analytic approaches to problems in epidemiological data analysis as applied to different study designs. Department of Epidemiology, UNT Health Science Center School of Public Health 2002 - 2005.

Epidemiological Research Methods (University of North Texas SPH)

This course extends the principles and fundamental concepts covered in the course Principles of Epidemiology. Emphasis is on methodological issues, potential sources of bias, and the use of multivariate modeling techniques. Course content includes the planning, implementation, and conduct of epidemiological studies, as well as the analysis and presentation of collected data. Students will develop conceptual and analytical skills in the design and conduct of epidemiological studies, and in the evaluation of data collection and processing. The course includes lectures and computer laboratory practical sessions supervised by the instructor. Students are responsible for the completion of written homework exercises and reading assignments. School of Public Health, University of North Texas 2000. School of Public Health, University of North Texas 2002 - 2003.

Quantitative Methods in Epidemiology (University of North Texas SPH)

This course includes the principles and concepts covered in basic and intermediate level methods in Epidemiology. It includes an in-depth discussion of study designs and state-of-the-art methods for analyzing epidemiological data with statistical procedures. Quantitative methods covered start with the statistical analysis of stratified data through multivariable modeling.

Methodologies for ecological studies, cross-sectional, case-control, cohort and mixed designs are considered. The statistical analysis packages, SAS, SPSS and Epi Info 6.0, are used for class assignments and projects. This course features the application of methods of analysis, such as matching, stratified Mantel-Haenszel analysis, logistic regression, Poisson regression, and Cox's proportional hazards regression model. Data sets are provided to allow students to gain experience with each method considered. The main goal of this course is to allow the student to develop a better understanding of statistical computing and analytic approaches to problems in epidemiological data analysis as applied to different study designs. Department of Epidemiology, UNT Health Science Center School of Public Health 2002 - 2005.

Biostatistics for the Public Health Professional (University of North Texas SPH)

This course provides students with the basic knowledge and skills to effectively use biostatistics in different research design and data analysis, and to understand articles in related professional journals. Topics include choosing correct statistical methods and study designs in public health research and practice; descriptive statistics; basic probability and probability distributions; estimation and hypothesis testing, simple linear regression, introduction to analysis of variance and an introduction to the use of statistical software packages. School of Public Health, University of North Texas 2000 - 2001.

Research Methods in Public Health (NOVA SE University PHP)

This is an intermediate level course that includes epidemiological research methodology such as design and analytical techniques for reducing or eliminating bias, study and report of effect modification and controlling for confounding variables. Bivariate and multivariate statistical data analysis by using Epi info and SPSS. This course also includes qualitative research methods as currently used in Public Health. Public Health Program, College of Allied Health, Nova Southeastern University 1996 - 2000.

Also taught in Spanish with the title " Métodos de Investigación Epidemiológica" at the School of Malariology and Environmental Health, Venezuelan Ministry of Health and Carabobo University, Maracay, Venezuela 1998 - 2000.

Research Methods in Dental Medicine (NOVA SE University PHP)

This is an introductory-intermediate level course that includes epidemiological research methodology such as measures of disease frequency and association commonly used in dental research, observational and experimental study designs, unadjusted and selected multivariate statistical analysis, techniques for reducing or eliminating bias, study and report interaction of variables and controlling for confounding variables. This course also includes selected qualitative research methods as they may apply to research in dental medicine. College of Dental Medicine, Nova Southeastern University 1998 - 2000.

Computer Applications in Public Health (NOVA SE University PHP)

This course includes techniques of data entry, data editing, statistical analysis, and presentation or reporting of public health data. The course includes the computation of measures of disease frequency and association, evaluation of screening and diagnostic procedures, difference of two and more sample means by using the t test, ANOVA and non-parametric tests. Association of two continuous variables by using simple linear regression and correlation. Sample size to

estimate a prevalence rate in surveys and comparison of two proportions in case-control and cohort studies. Sample power calculations and presentation of the results of an epidemiological study. Public Health Program, College of Allied Health, Nova Southeastern University 1995 - 2000.

Also taught in Spanish with the title " Informática Aplicada a la Epidemiología" at the School of Malariology and Environmental Health, Venezuelan Ministry of Health, 1996 - 1999.

Medical Epidemiology and Biostatistics (NOVA SE University PHP and University of South Florida SPH)

This course provides the medical student with basic level concepts and skills of epidemiology and biostatistics used by health care professionals in the clinical setting. This course also provides the basis for better understanding of the medical literature. College of Osteopathic Medicine, Nova Southeastern University 1997 - 2000. This course was also taught at the Department of Internal Medicine, College of Medicine, University of South Florida 1988 - 1995.

Descriptive Biostatistics (Centers for Disease Control and Prevention (CDC))

This is an introductory course oriented to employees of local health departments to enable them to identify and characterize public health data, summarize data to assess the distribution and trends of disease in the population, and construct and interpret frequency distributions and graphs relevant to health related problems. The course includes a review of the measures of disease frequency and association, rate adjustment, and measures of central tendency and dispersion. The participants are trained in the use of Epi Info, as well as Power Point or Harvard Graphics software. Applied Statistics Training Institute (ASTI), National Center for Health Statistics, CDC, 1994 - 1996.

Contributions in Applied Biostatistics

*Ignotti E, **Bayona M**, Alvarez-Garriga C, Andrade Vera LG, Valente JG. (2007). Transmission of Hansen's Disease and Unscreened Household Contacts, *Indian J Lepr*, Vol. 79(1): 9-11*

*Moonan PK, **Bayona M**, Quitigua TN, Oppong J, Dunbar D, Jost KC, Burgess G, Singh KP, Weiss SE (2004). Using GIS technology to identify areas of tuberculosis transmission and incidence. *International Journal of Health Geographics*, 3(23). Doi: 10.1186/1476-072X-3-23*

*Montealegre F, Meyer B, Chardon D, Zavala D, Hart B, & **Bayona M** (2004). Comparative prevalence of sensitization rates to common indoor and outdoor allergens in subjects with asthma, or atopic dermatitis and/or allergic rhinitis living in a tropical environment. *Clin Exp Allergy*, 34(1), pages 51–8.*

***Bayona M**, Montealegre F, Gomes de Andrade VL, & Trevino F (2002). Prognostic factors of severe asthma in Puerto Rico. *Puerto Rican Health Science Journal*, 21(3), pages 213 – 9.*

*Montealegre F, **Bayona M**, Chardon D, & Trevino F (2002). Age, gender and seasonal patterns of asthma in Emergency Departments of Southern Puerto Rico. *Puerto Rican Health Science Journal*, 21(3), pages 213 – 9.*

*Montealegre F, **Bayona M** (1996) An estimate of the prevalence, severity and seasonality of asthma in visitors to a Ponce shopping center. *Puerto Rico Health Sciences Journal*. June Vol*

15, No. 2, pages 113-117.

Andrade VLG, Moreira TA, Regazzi Avelleira JC, Boechat Marques A, **Bayona M** (1996) Paucibacillary or Multibacillary Leprosy. Contribution for the Routine Health Service. *Hansenologia Internationalis*. Vol 21 (2), pages 6-13.

Montalegre F, **Bayona M** (1996) An estimate of the prevalence, severity and seasonality of asthma in visitors to a Ponce shopping center. *Puerto Rico Health Sciences Journal*. June Vol 15, No. 2, pages 113-117.

Bright P, Arnett DK, Blair C, **Bayona M** (1994) Ethnic and Gender Differences in Survival among an HIV positive Cohort (Abstract): *American Journal of Epidemiology*, June, Volume 139, No. 11, page 52.

Wilson F, **Bayona M**, Cresanta J, Leaverton PE (1994) Risk Factor analysis of Drug Resistance in the Florida Tuberculosis Registry (Abstract): *American Journal of Epidemiology*. June, Volume 139, No. 11, page 29.

Bayona, M, Leaverton PE, Rangel-Sharpless, MC, and Williams PD (1994) Short Course Training in Epidemiology and Biostatistics for Graduate and Undergraduate Public Health Professionals. *Public Health Reports (USPHS)*, Vol. 109 (3), pages 434-438.

Rosenberg, EI, **Bayona M**, Brown CH, Specter SC (1993) Epidemiological Determinants of a High Risk Behavior Associated with Human Immunodeficiency Virus Infection in Women of Childbearing Age (Abstract). *American Journal of Epidemiology*, Vol. 138, No. 8, page 589.

Bayona M, Leaverton PE, Rangel-Sharpless MC, and Williams PD (1993) Continuing Education in Epidemiology and Biostatistics. *Florida Journal of Public Health*, Vol. V, No. 1 Summer-Fall, page 30.

Bayona M, Negrete J, Morel J (1991) Stochastic Network Model of the Epidemiology of River Blindness (Abstract). *Biometric Bulletin*, August, Vol. 8, No. 3.

Bayona M, Olsen C: Measures in Epidemiology. Instructional Unit (2004) The Young Epidemiology Scholars Program (YES). The College Board.
<http://www.collegeboard.com/yes/ft/iu/measures.html>

Bayona M, Olsen C: Screening and Diagnostic Tests. Instructional Unit (2004) The Young Epidemiology Scholars Program (YES). The College Board.
http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_02.pdf

Kaelin M, **Bayona M**, Olsen C: Attributable Risk Applications in Epidemiology (2004). Instructional Unit. The Young Epidemiology Scholars Program (YES). The College Board
http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_17.pdf

Virmond M, Cunha MG, Mello LC, Pedroza VSadahiroM, Vazques V, Daumiere D, Lobo D, Castalia R, Soares FR, Lombardi C, Ignotti E, Castellanos LG, **Bayona M** (2004) Leprosy Elimination Monitoring (LEM) in Brazil. Pan American Health Organization Regional Office of the World Health Organization. OPAS/DPC/CD/288/04. Brasilia, DF, Brazil, January 2004.
<http://www.paho.org/English/AD/DPC/CD/lep-lem-2003-rpt.pdf>

Other Selected Experience Related to Biostatistics

*Assistant Director of Research and Informatics. Texas Institute for Hispanic Health.
University of North Texas Health Science Center School of Public Health.
August 2003 to January 2007 (<http://www.hsc.unt.edu/TIHH/>).*

Manuel Bayona, Norman Trieff, Antonio Rene, Surya M. Artham, Sandra Noffsinger, Carolina Alvarez-Garriga, Tearrence Gratton: Cement kiln fuel pollution and increased asthma mortality Epidemiology Poster Session 3079.2: Monday, November 6, 2006: 10:30 AM-11:30 AM. 134 APHA Annual Meeting. Boston, MA, November 6, 2006.

Bayona M, Urrutia-Rojas X, and Balcazar H: Health Disparities between documented and undocumented Latinos in Forth Worth, Texas. Public Health Seminar Series. Public Health Week. School of Public Health, College of Health and Human Sciences, University of Nevada, Reno. Reno, Nevada. April 6, 2006.

Ignotti E; **Bayona M**; Andrade VLG; Valente JG; Alvarez-Garriga C: Single lesion as an indicator to monitor leprosy trends to “elimination” in hyperendemic areas. Nevada Public Health Association Meeting (Lake Tahoe) October 13-14, 2005.

Garrido F, Alvarez-Garriga C, Marruffo M, Montealegre F, Suarez-Perez EL, Saldias G, Riera C., **Bayona M**: High Prevalence of Dengue Fever in Caracas, Venezuela and Associated Risk Factors. American Public Health Association 130th Annual Meeting and Exposition. San Francisco, California. November 16-19, 2003.

Moonan PK, Marruffo M, **Bayona M**, Sahbazian B, Weis SE: Associate contact investigations of tuberculosis, are they effective? American Public Health Association 130th Annual Meeting and Exposition. San Francisco, California. November 16-19, 2003.

Moonan PK, **Bayona M**, Quitugua TN, Oppong J, Burgess G, Hines NL, Sahbazian B, Weis SE: Targeted Screening for Tuberculosis combining GIS and genotyping technology American Public Health Association 130th Annual Meeting and Exposition. San Francisco, California. November 16-19, 2003.

Pacheco M, Montealegre F, **Bayona M**, Marruffo M, Alvarez C: Development and evaluation of an epidemiological surveillance-screening test for Chagas' Disease. 77 Texas Public Health Association Annual Meeting. Fort Worth, Texas. March 2002.

Perez JL, Mazzarri M, **Bayona M**, Marruffo M, Suarez E, and Montealegre F: Association between incidence and mortality rates of dengue fever, and resistance levels of *Aedes aegypti* to Malathion. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Torres CD, Marruffo M, **Bayona M**, Montealegre F, Suarez-Perez E, Domínguez E, Fisher BL: Validity and precision of clinical criteria for screening and diagnosis of dengue fever. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Carolina Alvarez, **Manuel Bayona**, Yasmin Rubio-Palis, and Erick Suárez: *Predictive Epidemiological Model of Malaria Incidence in the State of Amazonas, Venezuela. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001*

Bayona, M et al: *Predictive epidemiological model of the household infection's rate to T. cruzi for the Chagas Control Program in Venezuela. 128th American Public Health Association Annual Meeting, Boston, November 2000.*

Marruffo, M, **Bayona M et al.:** *Epidemiological secular trends of the Chagas' Disease Control Program indicators and their relationship with residual insecticide house-spraying in Venezuela 1963 – 1998. 128th American Public Health Association Annual Meeting, Boston, November 2000.*

Alvarez C, **Bayona M**, Rubio-Palis Y, Suarez-Perez E, Pizzo N: *Relationship between Environmental Factors and Malaria Incidence in the Amazonas State, Venezuela. A Predictive Model. XVth International Congress for Tropical Medicine and Malaria. Cartagena de Indias, Colombia, August 23, 2000.*

Saldias G, Rose P, **Bayona M:** *Qualitative and quantitative methods combined in epidemiological research. American Public Health Association Annual Meeting, Chicago, November 1999.*

Bayona M, Montealegre F: *Emergency room trends for asthma exacerbations in southern Puerto Rico. Presented at the meeting of the European Academy of Allergy and Immunology, Madrid, Spain, 1995.*

Bayona M, Negrete J, Morel J: *Stochastic Network Model of the Epidemiology of River Blindness. The Annual Meeting of the Biometric Society (ENAR), Joint Meeting with the Institute of Mathematical Statistics and the American Statistical Association. Houston, Texas, March 1991.*

Bayona M and Castillo-Salgado C: *Risk assessment and epidemiological stratification as a strategy for malaria control in Central America (workshop). PAHO/WHO, La Ceiba, Honduras, Central America. 1988.*

Bayona M, Candidate for the Master's Degree in Biostatistics. *Developed a Stochastic Model of the Epidemiology of Onchocerciasis (M.Sc. Thesis). Dr. José Negrete (Advisor) Institute of Biomedical Research, National University of México (U.N.A.M.) México City, 1979.*

3. SHORT CONTINUING EDUCATION COURSES

Evaluating Administrative Staff. University of Nevada, Reno. Reno, Nevada, May 2006.

Effective Homework Assignments. Teaching Excellence Training. University of Nevada, Reno. Reno, Nevada, April 2006.

Management of Academic Departments. University of Nevada, Reno. Reno, Nevada, March 2006.

Academic Administration for Chair Persons and Directors. University of Nevada, Reno. Reno, Nevada, August 2005.

Leadership through Mentoring. University of North Texas Health Science Center at Fort Worth. Fort Worth, Texas. August 2004.

Improving Leadership Skills. University of North Texas Health Science Center at Fort Worth. Fort Worth, Texas. June 2003.

Customer Service Excellence Program (Service Stars) University of North Texas Health Science Center. Fort Worth, Texas. May 2002.

Web-Based Course Preparation and Teaching (Practical Training) College of Allied Health, Nova Southeastern University, Fort Lauderdale, Florida. 1999 - 2000.

Long Distance Learning Techniques. Two-way Classroom using Compress Video. (Practical Training). Learning Resources, Nova Southeastern University, Fort Lauderdale, Florida. 1997.

Council on Education for Public Health Accreditation Training. American Public Health Association Annual Meeting. November 17, New York, NY (124th Meeting) Empowering the Disadvantaged: Social Justice in Public Health, 2006.

Teaching Epidemiology and Computing with Epi Info and DoEpi. The Rollins School of Public Health, Emory University and the Centers for Disease Control and Prevention, Atlanta, Georgia, May 1996.

Basic Guidelines for Tuberculosis Control. St. Joseph's Women Hospital. J. Binder, Course Coordinator. Provider # 27H0084, Tampa. Florida, January, 1994.

Writing and Improving Achievement Tests. Teresa Fleteby, Ph.D. Instructor and Course Coordinator. Center for Teaching Enhancement, University of South Florida, January, 1994.

Recognizing and Responding to Learning Style Differences. James Eison, Ph.D. Instructor and Course Coordinator. Center for Teaching Enhancement, University of South Florida, January, 1994.

Teaching Portfolio Workshop. Center for Teaching Enhancement, University of South Florida, April, 1993.

Leprosy Seminar Training. American Leprosy Missions. United States Health Services. Carville, Louisiana. September, 1982.

Infectious Diseases Clinical and Epidemiological Training. Center of Ecological Research of the South-East of México (CIES) San Cristobal de las Casas, Chiapas, México, 1976.

4. WORK EXPERIENCE

A. Current Position

Professor of Biostatistics and Epidemiology. Public Health Program, Ponce School of Medicine. March 2008 - Present

B. Previous Academic Positions

Consultant Epidemiologist. Center for Research Design and Analysis. University of Nevada, Reno 2005 – Present

Professor and Director. School of Public Health, College of Health and Human Sciences. University of Nevada, Reno. July 2005 – June 2007.

Assistant Director of Research and Informatics. Texas Institute for Hispanic Health. University of North Texas Health Science Center School of Public Health. August 2003 to January 2007 (<http://www.hsc.unt.edu/TIHH/>).

Editor in Chief. Public Health International Bulletin (PHIB). Public Health International Association. 2003 - 2006.

Associate Professor of Epidemiology and Director of the Doctor of Public Health Program (Dr.P.H.). University of North Texas Health Science Center School of Public Health. August 2000 to June 2005.

Professor, Public Health Program, College of Allied Health, Nova Southeastern University. Fort Lauderdale, Florida. July 1997 – July 2000.

Associate Professor, College of Osteopathic Medicine, Nova Southeastern University. Fort Lauderdale, Florida. July 1997 – July 2000.

Visiting Professor. School of Malariology and Environmental Health. University of Carabobo, Maracay, Venezuela, 1997 - 2001.

Associate Professor, Public Health Program, College of Allied Health, Nova Southeastern University, Fort Lauderdale, Florida. June 1995 - June 1997.

Adjunct Assistant Professor, Department of Internal Medicine, College of Medicine, University of South Florida (USF), Tampa, Florida. Research and teaching medical statistics, epidemiological research methods and epidemiology of asthma, 1994 - 1995.

Assistant Professor (tenure track), Associate Member of the Graduate Faculty. Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida (USF), Tampa, Florida. December, 1987 - May 1995.

C. Previous Administrative Experience

Director General. General Directorate of Epidemiology (federal – national level). Mexican Secretary of Health. Mexico City, Mexico. 2007 - 2008.

Director of the Doctor of Public Health Program (Dr.P.H.). University of North Texas Health Science Center School of Public Health. August 2000 to June 2005.

Assistant Director of Research and Informatics for the Texas Institute for Hispanic Health. University of North Texas Health Science Center School of Public Health. August 2003 to 2007 (<http://www.hsc.unt.edu/TIHH/>).

Editor in Chief Public Health International Bulletin (PHIB). Public Health International Association (PHIA). 2003 – 2006 (www.danhogan.cihost.com).

Visiting Professor and Academic Coordinator. Master's Degree in Epidemiology of Vector-borne Diseases and Environmental Health. School of Malariology and Environmental Health, Venezuelan Ministry of Health, Pan American Health Organization and World Bank. Maracay, Venezuela. April, 1998 - 2001.

Acting Director. Public Health Program, College of Allied Health, Nova Southeastern University. Fort Lauderdale, Florida. June 1995 - July 2000.

Academic Coordinator. "Intermediate Level Epidemiology International Summer Program" Pan American Health Organization and University of South Florida, College of Public Health. Tampa, Florida. 1993 -1995.

Workshop Coordinator. Latin-American Workshop on Geographic Information Systems in Epidemiology. Pan American Health Organization, College of Social Sciences and College of Public Health, University of South Florida, Tampa, Florida. December 1994.

Medical Officer/Epidemiologist and Program Director. Development of the Baby Friendly Hospital Initiative in México. Also provided support for clinical and applied epidemiological research to promote breast feeding as a measure to reduce nutritional and infectious disease morbidity and mortality in infants, UNICEF, Mexico City, Mexico, 1991-1992.

D. Other Academic and Professional Activities

Participant. Reunión Sobre el Nuevo Reglamento Sanitario Internacional e Intercambio de Experiencias Sobre Salas de Situación de Salud. Centro Nacional de Vigilancia Epidemiológica y Control de Enfermedades. Secretaría de Salud, México. July 24 – 26, 2007.

President. Committee for the Review and Accreditation of the Doctor of Public Health in Epidemiology Program of the Ponce School of Medicine. "Consejo de Educación Superior de Puerto Rico". Ponce, Puerto Rico, May 2007.

Member of the Board of Directors. Nevada Public Health Foundation. Carson City, Nevada 2005 – 2007.

Member of the Advisory Committee. Sanford Center for Aging. University of Nevada. Reno, Nevada 2006 – 2007.

Principal Investigator. Developed "Preparing Research Proposals" workshop for Latino Investigators. University of North Texas Health Science Center. Forth Worth, Texas 2005.

Co-Principal Investigator. Developed and Launched "Asesoría de Salud Hispana" website (<http://publichealth.no-ip.info/asesoria/>). A website to provide health information and assistance

in Spanish to Latinos in the Dallas - Fort Worth Area. University of North Texas Health Science Center School of Public Health, Texas Institute for Hispanic Health. Fort Worth, Texas August 2003 - 2007.

Consultant Epidemiologist. Leprosy Elimination Program. Brazilian Secretary of Health, Brasilia, Brazil, November 2004.

Visiting Lecturer. Invited lecture “Latino Health Disparities Epidemiological Analysis” Generaciones Latino Group, Botanical Gardens, Fort Worth, Texas and San Antonio, Texas February, 2004.

Visiting Lecturer. Developed and taught “Preparing Research Proposals” workshop. University of Texas (UT) at San Antonio. San Antonio Texas, October, 2003.

Visiting Lecturer. Developed and taught in Spanish “Preparing Research Proposals” workshop. Universidad Autónoma de Ciudad Juárez. Sponsored by El Paso del Norte Foundation, Universidad Autónoma de Ciudad Juárez and University of North Texas Health Science Center School of Public Health. Ciudad Juárez, State of Chihuahua, México. January, 2003.

Section Councilor. Epidemiology Section. American Public Health Association 1999 – 2003.

Visiting Professor. Developed, coordinated and taught a course on Clinical Trials as part of the "Medical Research Course Series" at the Recinto de Ciencias Médicas, Rio Piedras, Puerto Rico. Course sponsored by the Universidad de Puerto Rico Medical School and Glaxo SmithKline Laboratories, January 1998.

Consultant Epidemiologist. Development and implementation of a surveillance system for onchocerciasis in Brazil. Carter Center and the Brazilian Ministry of Health. Brasilia and Boa Vista, Roraima, Brazil. September 1997.

Visiting Professor. Activities included student advisement, curriculum development and teaching in Spanish courses of epidemiology, biostatistics and computer applications for the Master’s and Specialty Degrees in Public Health and Epidemiology of Vector-born Diseases. School of Malariology and Environmental Health, Carabobo State University, Venezuelan Ministry of Health, Pan American Health Organization (PAHO/WHO) and the World Bank. Maracay, Venezuela. October 1996 and April 1997.

Technical Reviewer. Child Survival Support Program. Reviewer of child survival country program's applications. School of Hygiene and Public Health, The Johns Hopkins University. December 1996 - January 1997.

Course Director. Developed and Taught Epidemiological and Biostatistics Methods for Research and Surveillance of Tropical Diseases (Graduate course of 80 contact hours in Spanish). Institute for Public Health Education and Research. Fort Lauderdale, Florida, December 1996.

Visiting Professor and Consultant Epidemiologist. Asthma and AIDS epidemiology research projects in Puerto Rico. Ponce School of Medicine, Ponce, Puerto Rico 1993 - present.

Visiting Professor. Developed and taught Epidemiological Methods and Epidemiology of Infectious and Tropical Diseases in Spanish. Continuing Education Program, College of Public

Health, University of South Florida, and School of Public Health of México, National Institute of Public Health, México. July 1990, 1991, and 1992.

Temporary Advisor. Participated as a member of the Task Force Group on the Epidemiological Characterization of Onchocerciasis, PAHO/WHO. Washington, D.C., March 1992.

Consultant. Participated as a member of a consultation group on "In-Service Training in Epidemiology" for the Health Manpower Development Program of PAHO/WHO. Washington, D.C., February 1990.

Visiting Professor. Participated in the design and development of the research and teaching program in tropical diseases between the National Institute of Public Health of México and the University of South Florida, College of Public Health. Mexico City, Mexico, January 1990.

Visiting Professor/Consultant Epidemiologist. (1) Participated in the planning of the epidemiological stratification of malaria control research project. (2) Designed and taught in Spanish a 40-hour intermediate level course of epidemiological research methods for faculty and other health professionals from the Division of Malariology, School of Malariology and Environmental Health, Venezuelan Ministry of Health and PAHO/WHO. Maracay, Venezuela. August 1989.

Visiting Professor. Designed and taught two consecutive years in Spanish (30 contact hours) epidemiological research methods and a basic biostatistics course for an 80-hour Perinatal Epidemiology training program. University of South Florida College of Public Health and "Instituto Costarricense de Investigación y Enseñanza en Nutrición y Salud" (INCIENSA). Tres Ríos, Costa Rica. July 1989, and July - August 1990.

Temporary Advisor. Developed a proposal and plan for implementation of the epidemiological stratification of the malaria program in Venezuela. PAHO/WHO and the School of Malariology and Environmental Health, Venezuelan Ministry of Health, Maracay, Venezuela, May 1989.

Temporary Advisor. Reviewed and updated instructional materials in Spanish for an introductory course on Epidemiological Methods for Malaria Control. PAHO/WHO, Washington, D.C., September 1988 through January 1989.

Consultant Epidemiologist. Conducted a workshop in Spanish on risk assessment and epidemiological stratification as a strategy for malaria control in Central America. PAHO/WHO, La Ceiba, Honduras, Central America. August - September 1988.

Consultant Epidemiologist/ Visiting Professor. Designed and taught in Spanish an 80-contact hours graduate course in principles of epidemiology and biostatistics to faculty members of the School of Malariology, Carabobo State University, and other professionals of the Venezuelan Ministry of Health. PAHO/WHO, Maracay, Venezuela. May -June 1988.

Temporary Advisor. Designed and developed a workshop on risk assessment and epidemiological stratification as a strategy for malaria control in Central America. PAHO/WHO, Washington, D.C., April 1988.

Consultant Epidemiologist. Reviewed and collaborated on epidemiological research in Malaria and other vector-borne diseases in Venezuela. Developed and Coordinated a workshop on

"epidemiological stratification" for malaria control programs in Latin America. PAHO/WHO and School of Malariology and Environmental Health, Ministry of Health in Venezuela, Maracay, Venezuela. July-August, and November-December 1987.

Epidemiologist. Designed and conducted epidemiological studies in osteoarthritis. The Arthritis Research Institute of America. Clearwater, Florida, February-October, 1987.

Consultant Public Health Specialist/Epidemiologist. Assisted in the evaluation of the health status of the Guatemalan Population during the previous 10 years, with an emphasis on infectious diseases. Conducted a critical review of the health information system in Guatemala. Westinghouse Corporation/Guatemalan Ministry of Health and the United States Agency for International Development (USAID). Guatemala City, Guatemala. October-December, 1986.

Consultant Epidemiologist. Conducted field epidemiological surveys of onchocerciasis in Burkina Faso, Mali, Ghana, and Ivory Coast. Collaborated in applied research and quality control procedures for clinical and epidemiological data collection. Preliminary data analysis of epidemiological findings after 10 years of vector control. Epidemiological Evaluation Unit, Onchocerciasis Control Programme in the Volta River Basin Area (OCP). W.H.O. Ouagadougou, Burkina Faso. May, 1985 - April, 1986.

Doctoral Degree Candidate. Developed an epidemiological study on prognostic factors for ocular damage in onchocerciasis. Dr. Moyses Szklo, Advisor. Department of Epidemiology. School of Hygiene and Public Health, The Johns Hopkins University and the Center of Ecologic Research of the South-East of México (CIES). San Cristóbal de las Casas, Chiapas, México. January 1983 - March 1985.

Teaching Assistant. Course: Advanced Methods for Epidemiological Research. Dr. Earl Diamond (Course Director). Department of Epidemiology. School of Hygiene and Public Health, The Johns Hopkins University. 615 North Wolfe St., Baltimore, Maryland. October - December, 1982.

Research Assistant. Participated in data collection and diagnosis validation in a study of the Epidemiology of Aplastic Anemia and Non-Lymphocytic Leukemia. Dr. Moyses Szklo (Principal investigator). Department of Epidemiology. School of Hygiene and Public Health, The Johns Hopkins University. Baltimore, Maryland. January-April, 1980.

Master's Degree in Biostatistics Candidate. Developed a Stochastic Model of the Epidemiology of Onchocerciasis (M.Sc. Thesis). Dr. José Negrete (Advisor) Institute of Biomedical Research, National University of México (U.N.A.M.) México City, 1979.

Medical Social Service Internship. Medical officer and Research Assistant on clinical and epidemiological research on tropical diseases (practical research training and field work experience in onchocerciasis and other tropical diseases). School of Medicine, National University of México (U.N.A.M.) and the Center of Ecological Research of the South-East of México (CIES). San Cristobal de las Casas, Chiapas, México. 1976.

Medical Internship. Chihuahua General Hospital, School of Medicine, National University of México (U.N.A.M.). Chihuahua City, Chihuahua, México, 1975.

5. MEMBERSHIPS

Sociedad Mexicana de Salud Pública A.C. 2007 - Present
 International Epidemiological Association (IEA) 1988 - Present
 Nevada Public Health Association (NPHA) 2005 – Present
 Nevada Public Health Foundation (NPHF) 2005 - Present
 American Public Health Association (APHA) 1979-1985, 1994 - Present
 International Biometric Society (IBS) 1981 – 2003
 Society for Epidemiological Research (SER) 1981 - 2002
 Florida Public Health Association (FPHA) 1987 – 2000

6. LANGUAGES

Spanish	(fluent)
English	(fluent)
French	Conversation and reading technical literature (without serious difficulty; writing ability limited)
Portuguese	Conversation and reading (without serious difficulty; writing ability limited)

7. GRANTS, CONTRACTS AND OTHER AWARDS

- 2008 SECOND PLACE POSTER AWARD. Jaime L. Matta, Esperanza Negrón, Lisa Norman, Luisa Morales, Wanda Vargas, **Manuel Bayona**, and Miguel Echenique “New Insights Into the role of DNA Repair in breast Cancer“ Second Price. Fourth Annual Ponce School of Medicine Scientific Conference. **Poster** presentation. Ponce, Puerto Rico, June 7th, 2008.
- 2007 SECOND PLACE POSTER AWARD. Lucia Pineda, RN, MSNc, APNc, Ann Hubbert, PhD, RN, CTN, Alice Running, PhD, RN, CS, Carolina Alvarez-Garriga, MD, DrPH, **Manuel Bayona, MD, MS, PhD** "Understanding Latinos Cultural Beliefs and Practices: A Culturally Sensitive Nursing Approach for Latino Women Caring for Children with Asthma" Poster presentation during the 135th Annual Meeting & Exposition (November 3-7, 2007) in Washington, D.C.
- 2004-2006 (PI) Fernando Treviño (Co-PI) Manuel Bayona. Research Director of the Texas Institute for Hispanic Health, University of North Texas Health Science Center School of Public Health. Sid Richardson Foundation (\$380,000).
- 2004-2005 (PI) Manuel Bayona. Grants Writing Seminar for HBCU and Hispanic Investigators. Centers for Medicare and Medicaid SR. University of North Texas Health Science Center School of Public Health (\$ 25,000.00).
- 2004-2005 (PI) Manuel Bayona. Community-based obesity self-management intervention project. Centers for Medicare and Medicaid SR. University of North Texas Health Science Center School of Public Health (\$ 31,500.00).

- 2003-2005 (PI) Manuel Bayona. Partners for Community Learning and Research. “Academic Health Departments” Grant. ASPH/CDC/ATSDR Cooperative Agreement Year 22. UNT Health Science Center School of Public Health (\$ 100,000)
- 2002-2003 (PI) Robert Galvan, (CO-PI) Manuel Bayona. Metropolitan Response System. City of Lubbock Health Department. Contract for Services. City of Lubbock Texas and UNT Health Science Center School of Public Health (\$ 20,000).
- 2001-2002 (PI) Robert Galvan, (CO-PI) Manuel Bayona. Evaluation of the Immunization Status in Children of Tarrant County. Contract for Services. Tarrant County Health Department – University of North Texas Health Science Center School of Public Health (\$ 20,000.00).
- 2001-2002 (PI) Robert Galvan, (CO-PI) Manuel Bayona. Lead Exposure Environmental Hazards and Response to Infectious Disease Emergency Calls. City of Garland Health Department - University of North Texas Health Science Center School of Public Health (\$ 20,000.00).
- 2001 Outstanding Faculty Member in the Area of Education. University of North Texas Health Science Center. Fort Worth, Texas.
- 2000 (PI) Hector Balcazar (CO-PI) Manuel Bayona. Smoking and Dyslipemia in Hispanic Type II Diabetics. Tobacco Research Grant. University of North Texas Health Science Center (\$ 48,826.00).
- 1999 (PI) Manuel Bayona. Academic Collaboration. Specialty Degree Program in Epidemiology of Vector-born Diseases, 1999. School of Malariology and Environmental Health. Venezuelan Ministry of Health, Maracay, Venezuela, Pan American Health Organization and the World Bank (\$ 31,019).
- 1999 (PI) Manuel Bayona. Academic Collaboration. Specialty Degree Program in Public Health. School of Malariology and Environmental Health. Venezuelan Ministry of Health, Maracay, Venezuela, Pan American Health Organization and the World Bank (\$ 5,000).
- 1998 (PI) Manuel Bayona. Academic Coordination. Master's Degree Program on the Epidemiology of Vector-born Diseases. School of Malariology and Environmental Health. Maracay, Venezuela, Pan American Health Organization and the World Bank (\$172,203).
- 1998 (PI) Manuel Bayona. Academic Collaboration. Specialty Degree Program on the Epidemiology of Vector-born Diseases, 1998. School of Malariology and Environmental Health. Maracay, Venezuela, Pan American Health Organization and the World Bank (\$27,950).
- 1998 (PI) Manuel Bayona. Medical Research Course Series. Clinical Trials Short Course. Recinto Medico, Universidad de Puerto Rico. Glaxo Wellcome Laboratories. San Juan, Puerto Rico (\$5,000).

- 1995 (PI) Manuel Bayona. American Heart Association. School Site Program Assessment Survey for CVD Preventive Educational Program Kits in Florida, Tampa Florida (\$ 3,000).
- 1995 (PI) Manuel Bayona. Jeneric/Pentron Incorporated. Dental Sealants Promotion Program Randomized Trial, Tampa Florida (\$ 3,100)
- 1993 (PI) Paul Leaverton (CO-PI) Manuel Bayona. Health Quality Research for Medicare Beneficiaries. Epidemiological and statistical research. Florida Medical Quality Assurance, Inc. (\$ 507,000).
- 1993-95 (PI) Manuel Bayona. Pan American Health Organization. Intermediate level epidemiology training for public health professionals, Tampa, Florida (\$ 55,000/year, Total: \$165,000).
- 1990 (PI) Paul Leaverton (CO-PI) Manuel Bayona. Association of Schools of Public Health, Centers for Disease Control, and National Center of Health Statistics: Program to Enhance the Statistical and Epidemiological Capacity of State and Local Public Health Professionals. (\$ 12,000)
- 1989-95 (PI) Manuel Bayona. Medical Statistics and Epidemiology course for Medical Students. University of South Florida College of Medicine. Tampa, Florida (\$ 15,000/year, Total: \$ 105,000).
- 1989- Member of the Delta Omega (Tau Chapter) Honor Society for Public Health. College of Public Health, University of South Florida. Tampa, Florida.
- 1982-1984 Research Training Grant Award. Special Programme for Research and Training in Tropical Diseases (TDR), World Health Organization. Geneva, Switzerland. Doctoral Training in Epidemiology. The Johns Hopkins University, Baltimore, Maryland.
- 1977-1982 National Council of Science and Technology (CONACYT) Scholarship for Master's and Doctoral Training, México.
- 1976-1977 Banco de México, "Beca-Credito" (Scholarship award), México.

8. OTHER

CEPH Accreditation. Participated in the preparation of documentation and in the discussions during the site visits of the Council on Education for Public Health (CEPH) for the University of South Florida School of Public Health, Nova Southeastern University Public Health Program, and the University of North Texas Health Science Center School of Public Health.

Experience building and participating in strategic and developmental plans for the University of North Texas Health Science Center School of Public Health and for the University of Nevada Reno School of Public Health.

Experience developing and teaching epidemiology and epidemiological research techniques by using compress-video two-way classroom techniques for long distance learning (Nova Southeastern University, 1995-2000).

Participated in search committees for the recruitment of Dean (1994), faculty and staff in the fields of epidemiology (1990, 1991, 1994, 2000, 2001, 2003, 2004), biostatistics (1993), health service research (1994), and health services management (1994). College of Public Health, University of South Florida, Tampa, Florida. Participated in search committees for the recruitment of faculty members for Biostatistics and Epidemiology (2000 – 2003) University of North Texas Health Science Center School of Public Health, and University of Nevada, Reno School of Public Health (2005-2006).

Participated in several National Institutes of Health (NIH) and American Heart Association Grant Review Sections/Committees 1990 - 1995.

Academic Programs Development

Developed and Directed the Master in Science in Public Health (M.S.P.H.) and Doctor of Philosophy (Ph.D.) Degrees on Biostatistics and Epidemiology and Infectious Disease Epidemiology. University of South Florida School of Public Health. Tampa, Florida 1992 – 1995.

Developed and Directed the Master of Public Health Program (M.P.H.). Public Health Program, Nova Southeastern University College of Allied Health. Fort Lauderdale, Florida 1996 – 2000.

Developed and Coordinated the Master in Science Degree in Epidemiology of Vector-Born Diseases (M.S.). School of Malariology, University of Carabobo, Maracay, Venezuela 1997-2000.

Developed the Master in Science Degree in Epidemiology (M.S.). Honduran Ministry of Health and University of Honduras. Tegucigalpa, Honduras. 2000.

Developed and Directed the Doctor of Public Health Program (Dr.P.H.). UNT Health Science Center School of Public Health. This doctoral degree included specialties on biostatistics, epidemiology, health policy and management, and social and behavioral sciences. Fort Worth, Texas. 2000 – 2005

Developed the Master of Public Health with Emphasis in Applied Research (M.P.H.). This MPH program included an emphasis on quantitative research methods and biostatistics. UNT Health Science Center School of Public Health. Program supported by grants from the Centers of Disease Control and Prevention (CDC) and the Association of Schools of Public Health (ASPH). Fort Worth, Texas, 2004.

9. ABSTRACTS AND PUBLICATIONS

In Preparation:

Bayona M, Trombley A, Alvarez-Garriga C, Marruffo M, Bay S, Sandhu R. Breastfeeding an important protective factor for asthma in children. An epidemiological study based on NHANES 1999-2000 data.

Bayona M, Alvarez-Garriga C, Marruffo M. Asthma Prevalence and epidemiological patterns in children. NHANES 1999-2000.

Alvarez-Garriga C, **Bayona M**, Rubio-Palis Y, Suarez E, Saenz A, Singh K: Environmental factors and malaria incidence in Amazonas state, Venezuela: A predictive model. *International Journal of Epidemiology*.

Manuel Bayona, Carolina Alvarez-Garriga, Stefan Pope, Satya Buphathi, Karan Singh, Raul Vintimilla, Federico Montealegre: Respiratory Infections as an underlying cause of severe asthma in Puerto Rico.

Chanis Mercado, Carolina Alvarez-Garriga, **Manuel Bayona**. Asthma as a risk factor for lung cancer. Meta Analysis. Ponce School of Medicine Public Health Program.

Viani Rodriguez, Carolina Alvarez-Garriga, Manuel Bayona. Indoor pets and asthma. Meta Analysis. Ponce School of Medicine.

Jennifer Rullan, BS; Ivan Iriarte, MD; Mariel Muriel BS; Giovanna Rodriguez BS; Manuel Bayona, MD, PhD; Jaime Villa, MD. (2008) Profile of Patients who attended skin cancer clinics in Puerto Rico, Accepted for publication. *The Caribbean Journal of Dermatology and Therapeutics*

Published in Peer Reviewed Journals:

Ignotti E, **Bayona M**, Alvarez-Garriga C, Andrade Vera LG, Valente JG. (2007) Lesão única como indicador de monitoramento de tendência de eliminação da hanseníase em áreas hiperendêmicas (“Single lesion as an indicator to monitor the leprosy trend to elimination in hyperendemic areas”). *Rev. bras. Epidemiol* (Brazilian Journal of Epidemiology), 10(3): 421-431 [2007-09-21]. Available online in:

http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1415-790X2007000300013&lng=pt&nrm=iso. ISSN 1415-790X

Ignotti E, **Bayona M**, Alvarez-Garriga C, Andrade Vera LG, Valente JG. (2007). Transmission of Hansen’s Disease and Unscreened Household Contacts, *Indian J Lepr*, Vol. 79(1): 9-11

Montealegre F, Villa J, Vargas W, Hart B, **Bayona M** (2007) Risk factors for atopic dermatitis in southern Puerto Rico *P R Health Sci J*. Jun; 26(2):109-18

Urrutia-Rojas X, Egbuchunam CU, Bae S, Menchaca J, **Bayona M**, Rivers PA, Singh KP (2006) High blood pressure in school children: prevalence and risk factors. *BMC Pediatr*. Nov 16; 6:32

Montealegre F, Delgado A, Toro A, Vargas W, Chardon D, **Bayona M**, Campbell E (2006). Alfa 1 antitrypsin and protease levels in Puerto Rican asthmatics: a pilot study *P R Health Sci J*. Jun;25(2):117-25

Moayad N, Balcazar H, **Bayona M**, Pedregon V, Velasco L (2006). For the patient. Due acculturation and family cohesiveness influence severity of diabetes among Mexican Americans? *Ethnicity and Disease Official Journal of ISHIB*, Spring; 16(2):590

Moayad N, Balcázar H, Pedregón V, Velasco L, **Bayona M** (2006). Do acculturation and family cohesiveness influence severity of diabetes among Mexican Americans? *Ethn Dis*. Spring; 16(2):452-9

Moonan PK, Marruffo M, Bayona G, Sahbazian B, **Bayona M**, Burgess G, & Weiss SE (2005). Tuberculosis: What is the yield of associate investigations in non-BCG-immunized children with positive tuberculin skin tests? *Int J Tuberc Lung Dis*, 9(3), pages 322–327.

Montealegre F, Chardon D, Vargas W, **Bayona M**, Zavala D (2004). Measuring asthma disparities in Hispanics: adherence to the national guidelines for asthma treatment in emergency departments in Puerto Rico. *Ann Allergy Asthma Immunol*, Nov; 93(5), pages 472-477.

Moonan PK, **Bayona M**, Quitigua TN, Oppong J, Dunbar D, Jost KC, Burgess G, Singh KP, Weiss SE (2004). Using GIS technology to identify areas of tuberculosis transmission and incidence. *International Journal of Health Geographics*, 3(23). Doi: 10.1186/1476-072X-3-23

Montealegre F, Fernandez B, Delgado A, Fernández L, Román A, Chardón D, Rodríguez-Santana J, Medina V, Zavala D, **Bayona M** (2004). Exposure levels of asthmatic children to allergens, endotoxins and serine proteases in a tropical environment. *J. Asthma*, 41, pages 1-12.

Montealegre F, Meyer B, Chardon D, Zavala D, Hart B, & **Bayona M** (2004). Comparative prevalence of sensitization rates to common indoor and outdoor allergens in subjects with asthma, or atopic dermatitis and/or allergic rhinitis living in a tropical environment. *Clin Exp Allergy*, 34(1), pages 51–8.

Bayona M, Montealegre F, Gomes de Andrade VL, & Trevino F (2002). Prognostic factors of severe asthma in Puerto Rico. *Puerto Rican Health Science Journal*, 21(3), pages 213 – 9.

Montealegre F, **Bayona M**, Chardon D, & Trevino F (2002). Age, gender and seasonal patterns of asthma in Emergency Departments of Southern Puerto Rico. *Puerto Rican Health Science Journal*, 21(3), pages 213 – 9.

Urrutia-Rojas X, **Bayona M**, Menchaca J, Ahmad N, Alvarez-Garriga C, Marrufo M (2002). Factors Associated with Overweight and Obesity in Fort Worth School, Texas School Children. *Hispanic Health Care International*. Vol 1, No. 1, 2002, pages 31-41.

O' Rourke A, Zell JA, Varkey TT, Barone JL, and **Bayona M** (2002). Laparoscopic Diagnosis and Repair of Asymptomatic Bilateral Inguinal Hernias. *American Journal of Surgery*. 183(1), pages 15-19.

Bonner GF, Walczak M, Kitchen L, **Bayona M** (2000). Tolerance of non-steroidal anti-inflammatory bowel disease. *American Journal of Gastroenterology*. Aug; 95(8): pages 1946-8.

Blanks J, Richards F, Beltran F, Collins R, Alvarez E, Zea Flores G, Bauler B, Cedillos R, Heisler M, Brandling-Bennett D, Baldwin W, **Bayona M**, Klein R, and Jacox M (1998). The onchocerciasis elimination program of the Americas: A history of partnership. *Pan American Journal of Public Health*. Rev Panam Salud Publica. Jun; 3 (6): pages 367-74.

Montealegre F, Quinones C, Michelen V, **Bayona M**, Fernandez Caldas E, Vazquez O, Colon F, Chardon D, and Garcia M (1998). Prevalence of skin reactions to aeroallergens in asthmatics of Puerto Rico. *Puerto Rican Health Science Journal*, Vol. 16: pages 359-367.

Montealegre F, Sepulveda A, Quinones C, **Bayona M**, and Fernandez Caldas E (1997).

Identification of the domestic fauna of Puerto Rico. *Puerto Rican Health Science Journal* Vol. 16: pages 109 - 116.

Andrade VLG, Moreira TA, Regazzi Avelleira JC, **Bayona M** (1997). Prevalence of HIV1 in Leprosy Patients in Rio de Janeiro. *Acta Leprologica*, Vol. 10 (3), pages 159 -163.

Andrade VLG; Alves TM; Avelleira JCR.; Marquez AB, and **Bayona M** (1996). Paucibacilar ou Multibacilar? Uma contribuição para os Serviços de saúde. *Hansenologia Internationalis*. Vol 21 (2).

Andrade VLG, Moreira TA, Regazzi Avelleira JC, Boechat Marques A, **Bayona M** (1996). Paucibacillary or Multibacillary Leprosy. Contribution for the Routine Health Service. *Hansenologia Internationalis*. Vol 21 (2), pages 6-13.

Montalegre F, **Bayona M** (1996). An estimate of the prevalence, severity and seasonality of asthma in visitors to a Ponce shopping center. *Puerto Rico Health Sciences Journal*. June Vol 15, No. 2, pages 113-117.

Bayona M, Montealegre F (1994). Study of Selected Risk Factors for Asthma in Puerto Rico. Results and Methodologic Issues (Abstract): *Revista Brasileira de Alergia e Imunopatologia*, July-August Vol 17, No. 4, page 147.

Bright P, Arnett DK, Blair C, **Bayona M** (1994). Ethnic and Gender Differences in Survival among an HIV positive Cohort (Abstract): *American Journal of Epidemiology*, June, Volume 139, No. 11, page 52.

Wilson F, **Bayona M**, Cresanta J, Leaverton PE (1994). Risk Factor analysis of Drug Resistance in the Florida Tuberculosis Registry (Abstract): *American Journal of Epidemiology*. June, Volume 139, No. 11, page 29.

Rosenberg EI, **Bayona M**, Brown CH, Specter SC (1994). Epidemiological factors correlated with multiple sexual partners among women receiving prenatal care. *Annals of Epidemiology*, Harvard Medical School, Boston. November, Vol. 4, No. 6, pages 472-479.

Bayona M, Leaverton PE, Rangel-Sharpless, MC, and Williams PD (1994). Short Course Training in Epidemiology and Biostatistics for Graduate and Undergraduate Public Health Professionals. *Public Health Reports* (USPHS), Vol. 109 (3), pages 434-438.

Rosenberg, EI, **Bayona M**, Brown CH, Specter SC (1993). Epidemiological Determinants of a High Risk Behavior Associated with Human Immunodeficiency Virus Infection in Women of Childbearing Age (Abstract). *American Journal of Epidemiology*, Vol. 138, No. 8, page 589.

Bayona M, Leaverton PE, Rangel-Sharpless MC, and Williams PD (1993). Continuing Education in Epidemiology and Biostatistics. *Florida Journal of Public Health*, Vol. V No. 1 Summer-Fall, page 30.

Bayona M, and Rangel-Sharpless MC (1991). Malpractice in Clinical Research. *Florida Orthopaedic Society Journal*, Summer, Page 16.

Bayona M, Negrete J, Morel J (1991). Stochastic Network Model of the Epidemiology of River

Blindness (Abstract). *Biometric Bulletin*, August, Vol. 8, No. 3.

Bayona M, Szklo M, Taylor HR, Margeli HM, and Sharpless MC (1990). Prognostic Factors for Ocular Damage in Onchocerciasis (Abstract). *American Journal of Epidemiology*, Vol. 130, No.4, page 837.

Barrett J Jr, **Bayona M**, Tew WP and Wilson AA (1987). Early Detection of Meniscal Pathology in a Population with Osteoarthritis: A New Method. 51st Annual Meeting, American Rheumatism Association. Washington, D.C. June 1987 (Abstract). Abstracts of the 51st Annual Meeting, 1987. *Journal of the American Rheumatism Association*.

Dominguez-Vazquez A, Rivas-Alcala RA, Gomez-Priego A; and **Bayona-Celis M** (1985). Quimioterapia de la Oncocercosis: Evaluación del Mebendazol Solo y Asociado con Dietilcarbamazina. *Salud Pública de México*, Nov-Dec 27(6): pages 471-478

Other Peer-Reviewed Publications

McCrary F, **Bayona M**: The Web of Causation. Instructional Unit (2006) Young Epidemiology Scholars Program (YES). The College Board.
http://www.collegeboard.com/prod_downloads/yes/4297_MOD21pp1-30.pdf

Bayona M, Olsen C: Observational Studies and Bias. Instructional Unit (2004) The Young Epidemiology Scholars Program (YES). The College Board.
http://www.collegeboard.com/yes/ft/iu/bias_in_epidemiologic_research.html

Bayona M, Olsen C: Measures in Epidemiology. Instructional Unit (2004) The Young Epidemiology Scholars Program (YES). The College Board.
<http://www.collegeboard.com/yes/ft/iu/measures.html>

Bayona M, Olsen C: Screening and Diagnostic Tests. Instructional Unit (2004) The Young Epidemiology Scholars Program (YES). The College Board.
http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_02.pdf

Kaelin M, **Bayona M**, Olsen C: Attributable Risk Applications in Epidemiology (2004). Instructional Unit. The Young Epidemiology Scholars Program (YES). The College Board
http://www.collegeboard.com/prod_downloads/yes/4297_MODULE_17.pdf

Kaelin M, **Bayona M**: Case Control Study. Instructional Unit (2004). The Young Epidemiology Scholars Program (YES). The College Board.
<http://www.collegeboard.com/yes/ft/iu/casecontrol.html>

Huang FI, **Bayona M**: Disease Outbreak Investigation. Instructional Unit (2004) The Young Epidemiology Scholars Program (YES). The College Board.
http://www.collegeboard.com/yes/ft/iu/disease_outbreak_investigation.html

Virmond M, Cunha MG, Mello LC, Pedroza VSadahiroM, Vazques V, Daumiere D, Lobo D, Castalia R, Soares FR, Lombardi C, Ignotti E, Castellanos LG, **Bayona M** (2004) Leprosy Elimination Monitoring (LEM) in Brazil. Pan American Health Organization Regional Office of the World Health Organization. OPAS/DPC/CD/288/04. Brasilia, DF, Brazil, January 2004.
<http://www.paho.org/English/AD/DPC/CD/lep-lem-2003-rpt.pdf>

Bayona M et al (1991) Manual of Procedures for Baby Friendly Hospitals. Baby Friendly Hospital Initiative. UNICEF México and the Secretary of Health of México. Reforma 645, Lomas 11000, Mexico City, Mexico.

Bayona M et al (1991) Guidelines for Establishing Baby Friendly Hospitals. Baby Friendly Hospital Initiative. UNICEF México and the Secretary of Health of México. Reforma 645, Lomas 11000, Mexico City, Mexico.

Castillo-Salgado C and **Bayona M** (1990-1991) Principios de Epidemiología para el Control de la Malaria. Modulos de Enseñanza. Programa de Enfermedades Transmisibles, Unidad de Epidemiología. Documento OPS-OMS PNS/90-23 (5), Washington, D.C.

Castillo-Salgado C and **Bayona M** (1989) Uso de la Investigación Epidemiológica en la Conformación de Estratos Epidemiológicos de Riesgo y de la Selección de Intervenciones de Control. Materiales sobre Estratificación de la Malaria. Communicable Diseases Program, PAHO/WHO, Washington, D.C.

Other Publications

Bayona M, et al. (2007) Weekly Epidemiology Bulletin "Boletín Epidemiología" (equivalent of the Morbidity and Mortality Weekly Report "MMWR" from CDC) 26 weekly publications. General Directorate of Epidemiology of Mexico. Mexico City, Mexico. Available online at: <http://www.dgepi.salud.gob.mx/boletin/boletinhtm>

Bayona M, et al. (2007) Morbidity Annual Report 2006 (Anuario de Morbilidad 2006). General Directorate of Epidemiology of Mexico. Mexico City, Mexico. Available online at: <http://www.dgepi.salud.gob.mx/anuario>

Vecino I, Hogan B, **Bayona M** (2003) Asesoría de Salud Latina. Health Information Website in Spanish for Latinos. Texas Institute for Hispanic Health. University of North Texas Health Science Center School of Public Health. Available online at: <http://www.danhogan.cihost.com/babs/Asesoría/default.htm>

Bayona M and Beltran F (1989) Round Table Presentation and Discussion on New Options for the Treatment and Control of Onchocerciasis. "XII Congreso Médico Nacional" (Medicina Tropical). Esmeraldas, Ecuador, June. Published in "Memorias del XII Congreso Nacional," Ecuador.

Bayona M, and Beltran F (1989) Round Table Presentation and Discussion on Control Strategies for Yaws and Pinta (Carate). "XII Congreso Médico Nacional" (Medicina Tropical). Esmeraldas, Ecuador, June. Published in "Memorias del XII Congreso Nacional," Ecuador.

Bayona M, Szklo M, Taylor HR, Margeli HM, and Sharpless MC (1989) Prognostic Factors for Ocular Damage in Onchocerciasis. "XII Congreso Médico Nacional" (Medicina Tropical). Esmeraldas, Ecuador, June. Published in "Memorias del XII Congreso Nacional," Ecuador.

Bayona-Celis M (1985) A Case Control Study of Prognostic Factors for Ocular Damage in Onchocerciasis. Ph.D. Dissertation. The Johns Hopkins University School of Hygiene and Public Health, Baltimore, Maryland, United States.

Bayona M and Szklo M (1983) Epidemiological Patterns of Blood Pressure in Children. First Congress on Hypertension in Central America, Panama, and The Caribbean Region. San Jose de Costa Rica, Costa Rica, Central America. Published in the "Memorias del Primer Congreso de Hipertensión de Centroamérica." San José, Costa Rica.

Bayona M and Szklo M (1983) Epidemiology of Hypertension. First Congress on Hypertension in Central America, Panama, and The Caribbean Region. San José de Costa Rica, Costa Rica, Central America. 1983. Published in the "Memorias del Primer Congreso de Hipertensión de Centroamérica." San José, Costa Rica.

10. PRESENTATIONS

Jaime L. Matta, Esperanza Negrón, Lisa Norman, Luisa Morales, Wanda Vargas, **Manuel Bayona**, and Miguel Echenique "New Insights Into the role of DNA Repair in breast Cancer" Second Prize. Fourth Annual Ponce School of Medicine Scientific Conference. **Poster** presentation. Ponce, Puerto Rico, June 7th, 2008.

Manuel Bayona, Nuevo Sistema de Plataforma Única Electrónica para la Vigilancia Epidemiológica de Dengue en México. Reunión Nacional de Vigilancia y Control de Dengue. Centro Nacional de Vigilancia Epidemiológica y Control de Enfermedades. Secretaría de Salud, Mexico City, Mexico. November 2007.

Manuel Bayona, Programa de Acción: Sistema Nacional de Vigilancia Epidemiológica 2007 – 2012 (SINAVE) Notificación Semanal y Plataforma Única del SINAVE. Encuentro Nacional de Prevención y Promoción para una Mejor Salud. Subsecretaría de Prevención y Promoción de la Salud. Secretaría de Salud. Acapulco, State of Guerrero, México. Octubre del 2007.

Manuel Bayona, Acciones de Vigilancia Epidemiológica y Sistemas de Información. Reunión Binacional. Comisión de Salud Fronteriza, México – Guatemala. Tapachula, State of Chiapas, México. October 10 – 11, 2007.

Carolina Alvarez-Garriga, MD, DrPH, Lucia Pineda, RN, MSNc, APNc, George Fernandez, PhD, Veronica Dahir, PhD, Wei Yang, MD, PhD, Federico Montealegre, DVM, MS, PhD, **Manuel Bayona, MD, MS, PhD**. Predictors of Asthma Severity in Latino Children in the United States. 135th Annual Meeting & Exposition (November 3-7, 2007). Roundtable 4130.0 Tuesday November 06, 2007 12:30-2:00 PM

Lucia Pineda, RN, MSNc, APNc, Ann Hubbert, PhD, RN, CTN, Alice Running, PhD, RN, CS, Carolina Alvarez-Garriga, MD, DrPH, **Manuel Bayona, MD, MS, PhD** "Understanding Latinos Cultural Beliefs and Practices: A Culturally Sensitive Nursing Approach for Latino Women Caring for Children with Asthma" Poster presentation during the 135th Annual Meeting & Exposition (November 3-7, 2007) in Washington, D.C.

Manuel Bayona, Vigilancia Epidemiológica y Respuesta ante una Pandemia de Influenza. Simposio: Propuesta de Acciones en las Instituciones de Educación Superior, ante una Posible Pandemia de Influenza. Facultad de Medicina, Universidad Nacional Autónoma de México. Ciudad de México. Junio 21 del 2007.

Manuel Bayona, Vigilancia Epidemiológica. Taller Teórico Práctico en Vigilancia Epidemiológica. Sociedad Mexicana de Salud Pública, A.C., Toluca, Estado de México, México. Julio 12 del 2007.

Manuel Bayona, Ximena Urrutia-Rojas, Sue G. Lurie, Hector Balcazar, and Carolina Alvarez-Garriga: Immigrant Health in the 21st Century. An epidemiological analysis. Invited Lecture. Nevada Public Health Association Quarterly Chapter Meeting. Carson City, Nevada. June 8, 2006.

Carolina Alvarez-Garriga, Joaquim G. Valente, Wei Yang, Federico Montealegre, Sandra Noffsinger, Michelle Butler, Dylan Linnell, Danielle Moss, Aaron Hull, Joseph Wilson, Kayla Bihler, Jenna Huber, Dea Minnitte, Kristen Rose, Justin Patay, Amber Ramos, Julie Pace, and **Manuel Bayona**: Important predictors for asthma hospitalization. Oral Presentation Epidemiology of Asthma 4028.0: Tuesday, November 7, 2006: 8:30 AM-10:00 AM, 134 American Public Health Association Annual Meeting. Boston, MA, November 7, 2006.

Marco Marruffo, Carolina Alvarez-Garriga, Sandra Noffsinger, Raghbir Sandhu, Antonio Rene, Daisha Cipher, Federico Montealegre, **Manuel Bayona**: Asthma severity and mortality. A clinical epidemiology study. Chronic Disease Epidemiology Poster Session 3079.1: Monday, November 6, 2006: 10:30 AM-11:30 AM, 134 American Public Health Association Meeting. Boston, MA, November 6, 2006.

Manuel Bayona, Norman Trieff, Antonio Rene, Surya M. Artham, Sandra Noffsinger, Carolina Alvarez-Garriga, Tearrence Gratton: Cement kiln fuel pollution and increased asthma mortality Epidemiology Poster Session 3079.2: Monday, November 6, 2006: 10:30 AM-11:30 AM. 134 APHA Annual Meeting. Boston, MA, November 6, 2006.

Alvarez-Garriga C, Yang W, Valente J, and **Bayona M**: Obesity as predictor for asthma hospitalization. Community Solutions to Obesity and Chronic Disease in Northern Nevada. Nevada Public Health Foundation. Reno, Nevada, April 27, 2006.

Bayona M: Recent U.S. Immigration Policy and its Implications for Public Health in the United States and Abroad. Keynote Speaker. Bard Conference on Global Health. Global Migration and the Burden of Disease. The Bard College, Annandale-on-Hudson, New York, April 14, 2006

Bayona M, Urrutia-Rojas X, and Balcazar H: Health Disparities between documented and undocumented Latinos in Fort Worth, Texas. Public Health Seminar Series. Public Health Week. School of Public Health, College of Health and Human Sciences, University of Nevada, Reno. Reno, Nevada. April 6, 2006.

Bayona M, Urrutia-Rojas X, Balcazar H, Menchaca J, Lurie S, and Alvarez-Garriga C: Hypertension in Children in Fort Worth, Texas. Public Health Seminar Series. School of Public Health, College of Health and Human Sciences, University of Nevada, Reno. Reno, Nevada. February 15, 2006.

Alvarez-Garriga C; Sandhu R; Rene A; Cipher D; Montealegre F; Marruffo M; **Bayona M**: Risk Factors for Childhood Asthma in the United States. American Public Health Association 133rd Annual Meeting & Exposition. Philadelphia, PA. December 10-14, 2005.

Alvarez-Garriga C; Sandhu R; Rene A; Cipher D; Montealegre F; Marruffo M; **Bayona M**: Increasing Prevalence of Childhood Asthma and Selected Epidemiological Features in the United States. Nevada Public Health Association Meeting (Lake Tahoe) October 13-14, 2005.

Marruffo M; Rene A; Cipher D; Sandhu R; Alvarez-Garriga C; Montealegre F; **Bayona M**: Predictors of the Severity of Asthma in the Hospital Setting. A Clinical Epidemiology Study Based on Hospital Records from the Texas Health Care Information Council. Nevada Public Health Association Meeting (Lake Tahoe) October 13-14, 2005.

Ignotti E; **Bayona M**; Andrade VLG; Valente JG; Alvarez-Garriga C: Single lesion as an indicator to monitor leprosy trends to “elimination” in hyperendemic areas. Nevada Public Health Association Meeting (Lake Tahoe) October 13-14, 2005.

M. Bayona, C Coggin, and Alvarez-Garriga C: Partners for Community-Based Learning and Research. University of North Texas Health Science Center School of Public Health. Academic Health Departments. Association of Schools of Public Health (ASPH) Presentation at the American Public Health Association Meeting. 132 APHA Annual Meeting. Washington D.C., November 2004.

G. Munguía, X. Urrutia-Rojas, S.G. Lurie, H. Balcazar, **M. Bayona**: Health Disparities between Documented and Undocumented Latinos in Fort Worth, Texas. Invited Lecture. University of Texas at El Paso (UTEP), April 2004.

Trombley A, Alvarez-Garriga C, Marruffo M, **Bayona M**: Association between Breastfeeding and Asthma. Research Appreciation Day. University of North Texas Health Science Center, Fort Worth, Texas. April 2004.

Marruffo M, Moonan PK, **Bayona M**, Weis S: Epidemiological Assessment of Tuberculosis in Children. Research Appreciation Day. University of North Texas Health Science Center, Fort Worth, Texas. April 2004.

Neda Moayad, Janet Marruffo, Hector Balcazar, Andras Lacko, Walter McConathy, Muriel Marshall, Luis Velasco, Guadalupe Munguía-Bayona, Dinorah Calles, and **Manuel Bayona**: Epidemiological Study of Severe Type II Diabetes in Latinos with Emphasis on Social, Behavioral, and Life Style Factors. Department of Epidemiology, University of North Texas Health Science Center School of Public Health, Fort Worth, TX. 130 American Public Health Association Annual Meeting, San Francisco, November 2003.

Ahmad, N., Urrutia-Rojas, X., **Bayona, M.**, Bae, S., Alvarez-Garriga, C., Singh, K. Distribution of Factors Associated with Obesity in African American, Caucasian, and Hispanic Children. #63406. 131 American Public Health Association Annual Meeting. San Francisco, November 2003.

Garrido F, Alvarez-Garriga C, Marruffo M, Montealegre F, Suarez-Perez EL, Saldias G, Riera C., **Bayona M**: High Prevalence of Dengue Fever in Caracas, Venezuela and Associated Risk Factors. American Public Health Association 130th Annual Meeting and Exposition. San Francisco, California. November 16-19, 2003.

Moonan PK, Marruffo M, **Bayona M**, Sahbazian B, Weis SE: Associate contact investigations of tuberculosis, are they effective? American Public Health Association 130th Annual Meeting and

Exposition. San Francisco, California. November 16-19, 2003.

Moonan PK, **Bayona M**, Quitugua TN, Oppong J, Burgess G, Hines NL, Sahbazian B, Weis SE: Targeted Screening for Tuberculosis combining GIS and genotyping technology American Public Health Association 130th Annual Meeting and Exposition. San Francisco, California. November 16-19, 2003.

Balcazar H, Walker E, and **Bayona M**: Research Protocol Development and Grant Writing Workshop. The Culture and Policy Institute, University of Texas at San Antonio. October 16-17, 2003.

Ximena Urrutia-Rojas, **Manuel Bayona**, Claudia Coggin: Gender-related Factors for Obesity in School Children. 2003 Midyear Scientific Conference. The Society for Public Health Education. New México State University, Corbett Center. Las Cruces, New México. June 2003.

Rojas X, McConathy, **Bayona M**, Menciahca J, Ahmad N, Ha A, Kouros E. Diet and Physical Activity in Children at High Risk for Diabetes. American College of Nutrition Annual Meeting. San Antonio, Texas. October 2002.

Mercedes Pacheco, Carolina A. Alvarez, Marco Marruffo, Janet Marruffo, Federico Montealegre, and **Manuel Bayona**, Development and evaluation of an epidemiological surveillance-screening test for Chagas' Disease. Instituto de Altos Estudios en Salud Publica, Universidad de Carabobo, Maracay, Venezuela and Department of Epidemiology, University of North Texas Health Science Center School of Public Health, Fort Worth, TX. 130 American Public Health Association Annual Meeting, Philadelphia PA, November 2002.

Naveed Ahmad, Ximena Urrutia-Rojas, **Manuel Bayona**, John A Menciahca, Marco Marruffo, Carolina A Alvarez, and Fernando Trevino: Gender Related Risk Factors for Obesity in School Children. University of North Texas Health Science Center School of Public Health, Fort Worth, TX. 130 American Public Health Association Annual Meeting, Philadelphia PA, November 2002.

Soledad Lugo, Marco Marruffo, Carolina A. Alvarez, Janet Marruffo, Federico Montealegre, and **Manuel Bayona**: Environmental Risk Factors for Asthma in School-Age children in Venezuela. Instituto de Altos Estudios en Salud Publica, Ministerio de Salud y Desarrollo Social, Maracay, Venezuela and Department of Epidemiology, University of North Texas, School of Public Health, Fort Worth, TX 130 American Public Health Association Annual Meeting, Philadelphia PA, November 2002.

Marruffo M, Guevara de Sequeda M, and **Bayona M**: Serological Survey of Chagas' Disease in a Rural Community in Venezuela. Research Appreciation Day. University of North Texas Health Science Center. Fort Worth, Texas. April 5, 2002.

Garrido F, **Bayona M**, Marruffo M, Alvarez C, Montealegre F, Suarez-Perez E, Riera C: Seroprevalence and Risk Factors for Dengue Fever in Caracas, Venezuela. 77 Texas Public Health Association Annual Meeting. Fort Worth, Texas. March 2002.

Pacheco M, Montealegre F, **Bayona M**, Marruffo M, Alvarez C: Development and evaluation of an epidemiological surveillance-screening test for Chagas' Disease. 77 Texas Public Health Association Annual Meeting. Fort Worth, Texas. March 2002.

Lugo S, Montealegre F, **Bayona M**, Marruffo M: Environmental Risk Factors for Asthma in School-Age children in Venezuela. 77 Texas Public Health Association Annual Meeting. Fort Worth, Texas. March 2002.

Montealegre F, Fernandez B, Delgado A, Fernández L, Roman A, Rodríguez-Santana J, Zavala D, Medina V, Chardon D, and **Bayona M**: Identification and levels of indoor environmental irritants in homes of asthmatic children in Bayamon, Puerto Rico. American Thoracic Society Annual Meeting (ATS 2002). Atlanta, Georgia, 2002.

Perez JL, Mazzarri M, **Bayona M**, Marruffo M, Suarez E, and Montealegre F: Association between incidence and mortality rates of dengue fever, and resistance levels of *Aedes aegypti* to Malathion. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Torres C D., Marruffo M, **Bayona M**, Montealegre F, Suarez-Perez E., Domínguez E., Fisher BL: Validity and precision of clinical criteria for screening and diagnosis of dengue fever. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Ximena Urrutia-Rojas, John A. Menchaca, Naveed Ahmad, **Manuel Bayona**, Rosa Rosario-Rosado: Acanthosis Nigricans in School-Age Children in Fort Worth, Texas. A Community-Based Cross - Sectional Study. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Carolina Alvarez, **Manuel Bayona**, Yasmin Rubio-Palis, and Erick Suárez: Predictive Epidemiological Model of Malaria Incidence in the State of Amazonas, Venezuela. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Rodriguez EM, Arias J, **Bayona M**, Marruffo M, Montealegre F, Suarez E, and Perez-Cardona C.: Risk factors for nodular lymphangitis in patients with leishmaniosis in Venezuela. An epidemiological case-control study. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001

Rangel MA, Guevara de Sequeda M, Marruffo M, **Bayona M**: Serological Survey of Chagas' Disease in a Rural Community in Venezuela. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001.

Ximena Urrutia-Rojas, John A. Menchaca, Naveed Ahmad, Marco Marruffo, , **Manuel Bayona**: A community based case-control study of high diastolic blood pressure in school-age children in Fort Worth, Texas. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001.

Ximena Urrutia-Rojas, John A. Menchaca, Naveed Ahmad, Carolina Alvarez-Garriga, **Manuel Bayona**: Systolic blood pressure in school-age children in Fort Worth, Texas. A community based case-control study. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001.

Ximena Urrutia-Rojas, John A. Menchaca, Naveed Ahmad, Rosa Rosario-Rosado, **Manuel Bayona**: Risk Factors for Type II Diabetes Mellitus (T2DM), an emerging public health problem

in school children. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001.

Ximena Urrutia-Rojas, John A. Menchaca, Naveed Ahmad, **Manuel Bayona**, Rosa Rosario-Rosado: Factors associated with obesity among school-age children in Fort Worth, Texas. American Public Health Association 129th Annual Meeting and Exposition. Atlanta, Georgia. October 21 – 25, 2001.

Bayona, M et al: Predictive epidemiological model of the household infection's rate to *T. cruzi* for the Chagas Control Program in Venezuela. 128th American Public Health Association Annual Meeting, Boston, November 2000.

Marruffo, M, **Bayona M** et al.: Epidemiological secular trends of the Chagas' Disease Control Program indicators and their relationship with residual insecticide house-spraying in Venezuela 1963 – 1998. 128th American Public Health Association Annual Meeting, Boston, November 2000.

Alvarez C, **Bayona M**, Rubio-Palis Y, Suarez-Perez E, Pizzo N: Relationship between Environmental Factors and Malaria Incidence in the Amazonas State, Venezuela. A Predictive Model. XVth International Congress for Tropical Medicine and Malaria. Cartagena de Indias, Colombia, August 23, 2000.

Bayona M and Montealegre F: Epidemiology and Prognostic Factors for Asthma. Medical Symposium of Asthma in Puerto Rico. University of Puerto Rico. Ponce Hilton, August 2000.

Dike K, Flores I, Johnson K, **Bayona M**: Epidemiological and clinical differences between endometriosis and adenomyosis American Public Health Association Annual Meeting, Boston, November 2000.

Saldias G, Rose P, **Bayona M**: Qualitative and quantitative methods combined in epidemiological research. American Public Health Association Annual Meeting, Chicago, November 1999.

Mansuetta C, Cuesta I, **Bayona M**: Risk factors for early presbyopia. American Public Health Association Annual Meeting, Chicago, November 1999.

Walszack M, Bonner GF, Cuadrado RR, and **Bayona M**: Risk factors for severe Crohn's disease American Public Health Association Annual Meeting, Chicago, November 1999.

Amaker C, Saldias G, **Bayona M**: The deadliest enemy of the United States Army. An epidemiological study of mortality. American Public Health Association Annual Meeting, Chicago, November 1999.

Bayona M, Saldias G, Sequeda M, Rattia J, Marruffo M, Montealegre F, and Cuadrado RR: Quality Training for Venezuelan Ministry of Health Professionals in the Epidemiology of Vector Born Diseases. The XV International Scientific Meeting of the International Epidemiological Association (IEA). Florence, Italy, September, 1999.

Bayona M, Friedman S, Cuadrado RR, Saldias G: Lightning Injuries and Mortality. A comparison between the state of Florida and the rest of the United States. The XV International Scientific Meeting of the International Epidemiological Association (IEA). Florence, Italy,

September, 1999.

Saldias G, **Bayona M**: Integrating qualitative methods in traditional epidemiological assessment. The XV International Scientific Meeting of the International Epidemiological Association (IEA). Florence, Italy, September, 1999.

Friedman S and **Bayona M**: Death from above: Florida Ranks Number One in Lightning Injuries and Mortality. Injury Epidemiology Section. American Public Health Association Annual Meeting, Washington, D.C., November, 1998.

Bayona M and Montealegre F: Emergency room prognostic factors of self-reported asthma in Puerto Rico. Presented at the XVI International Congress of Allergy and Clinical Immunology, Cancun, México, 1997.

Montealegre F, Quinones C, and **Bayona M**: Optimization of *Blomia tropicalis* extracts. The effect of methods, buffers and incubation times as measured by enzymatic activities. Presented at the XVI International Congress of Allergy and Clinical Immunology, Cancun, México, 1997.

Bayona M, and Cuadrado RR: Long distance learning in public health by using a compressed video two-way classroom technology. American Public Health Association Annual Meeting. New York, New York, November, 1996.

Bayona M: Epidemiological research and sources of funding for Latin America. Special Seminar. School of Malariology, Venezuelan Ministry of Health. Maracay, Venezuela. October, 1996.

Bayona M, Montealegre F: Emergency room trends for asthma exacerbations in southern Puerto Rico. Presented at the meeting of the European Academy of Allergy and Immunology, Madrid, Spain, 1995.

Fernandez E, Sepulveda A, **Bayona M**. and Montealegre F: Domestic Mite fauna of Puerto Rico. Presented at the meeting of the European Academy of Allergy and Immunology, Madrid, Spain, 1995.

Montealegre F, Quiñones C, Villa J, Chardon D, Garcia M, and **Bayona M**: Comparison of allergen skin reactivity between atopic dermatitis and asthmatic patients in southern Puerto Rico. Presented at the 3rd International Workshop on indoor Allergens and Asthma, Cuenca, Spain, 1995.

Montealegre, FC, Quiñones MT, Villa J, Sánchez E, and **Bayona M**: Domestic mites are the most important sensitizing agent in atopic dermatitis patients in southern Puerto Rico. Presented at the XII Iberoamerican Dermatology Congress, San Juan, Puerto Rico, 1995.

Bayona M, Montealegre F, Andrade VLG: Alta Prevalencia de Asthma en Ponce, Puerto Rico. III Brazilian, II Ibero-American, I Latin American Congress of Epidemiology. Salvador, Bahia, Brazil, April 28, 1995.

Bayona M, Novitsky S, and Andrade VLG: Drowning in Florida. An Epidemiological Review. 1995 Injury Prevention Conference. Innovation in Practice and Research. College of Public Health, University of South Florida, Tampa, Florida, April 7, 1995.

Bayona M: Session Chairman, Infectious diseases and computer mapping in epidemiology. International Symposium on Computer Mapping in Epidemiology and Environmental Health. World Computer Graphics Foundation and University of South Florida, Tampa, Florida, February 12-15, 1995.

Bayona M, Montealegre F.: Study of Selected Risk Factors for Asthma in Puerto Rico. Results and Methodologic Issues. II South American Congress of Asthma and XXIV Brazilian Congress of Allergy and Immunology. Foz do Iguazu, State of Parana, Brazil, October 18, 1994.

Bright P, Arnett DK, Blair C, **Bayona M:** Ethnic and Gender Differences in Survival among an HIV positive Cohort. Twenty-Seventh Annual Meeting of the Society for Epidemiological Research (SER). Miami, Florida, June 17, 1994.

Wilson F, **Bayona M, Cresanta J, Leaverton PE:** Risk Factor analysis of Drug Resistance in the Florida Tuberculosis Registry. Twenty-Seventh Annual Meeting of the Society for Epidemiological Research (SER). Miami, Florida, June 16, 1994.

Bayona M: Breast Feeding and Infant Mortality. University of South Florida 1993, Hispanic Heritage Celebration Meeting. October 25, 1993, Tampa, Florida.

Bayona M: Elimination of River Blindness in México. World Health Issues Program. A Panel Discussion. University of South Florida School of Public Health. October, 20, 1993.

Bayona M: Breast Feeding – A Protective Factor to Breast Cancer. Moffitt Cancer Center July 10th, 1993 Scientific Meeting. University of South Florida, Tampa, Florida. 1993.

Rosenberg EI, **Bayona M, Brown CH, Specter SC:** Epidemiological Determinants of a High Risk Behavior Associated with Human Immunodeficiency Virus Infection in Women of Childbearing Age. Twenty-Sixth Annual Meeting of the Society for Epidemiological Research (SER). Keystone, Colorado, June 17, 1993.

Bayona M: Epidemiological Planning and Evaluation of Control Programs for Tropical Disease. Future Directions in Epidemiology and Biostatistics. Seminar Series. December 2, 1992. College of Public Health, University of South Florida, Tampa, Florida. 1992.

Bayona M: “Enfermedades Contagiosas (SIDA, Tuberculosis, Hepatitis y Enfermedades Venereas).” Conference Series. City of Tampa Mayor’s Hispanic Advisory Council and Department of Internal Medicine, College of Medicine, University of South Florida, October 21, 1992.

Bayona M: Epidemiology of AIDS. Alpha Epsilon Delta, Pre-Medical Honor Society. University of South Florida. Tampa, Florida, September, 16, 1992.

Bayona M, Negrete J, Morel J: Stochastic Network Model of the Epidemiology of River Blindness. The Annual Meeting of the Biometric Society (ENAR), Joint Meeting with the Institute of Mathematical Statistics and the American Statistical Association. Houston, Texas, March 1991.

Bayona M, and Beltran F: Round Table Presentation and Discussion on New Options for the

Treatment and Control of Onchocerciasis. "XII Congreso Médico Nacional" (Medicina Tropical). Esmeraldas, Ecuador, June, 1989.

Bayona M, and Beltran F: Round Table Presentation and Discussion on Control Strategies for Yaws and Pinta (Carate). "XII Congreso Médico Nacional" (Medicina Tropical). Esmeraldas, Ecuador, June, 1989.

Bayona M, Szklo M, Taylor HR, Margeli HM, and Sharpless MC: Prognostic Factors for Ocular Damage in Onchocerciasis. "XII Congreso Médico Nacional" (Medicina Tropical). Esmeraldas, Ecuador, June, 1989.

Bayona M, Szklo M, Taylor HR, Margeli HM, and Sharpless, M.C.: Prognostic Factors for Ocular Damage in Onchocerciasis. Twenty Second Annual Meeting of the Society for Epidemiological Research (SER). Birmingham, Alabama, June, 1989.

Bayona M and Castillo-Salgado C: Risk assessment and epidemiological stratification as a strategy for malaria control in Central America (workshop). PAHO/WHO, La Ceiba, Honduras, Central America. 1988.

Bayona M and Castillo-Salgado C: Risk assessment and epidemiological stratification as a strategy for malaria control (workshop). School of Malariology, Venezuelan Ministry of Health. PAHO/WHO, Maracay, Venezuela. 1988.

Bayona M: Epidemiology of Onchocerciasis. Annual Conference of the Florida Public Health Association. Tampa, Florida, 1987.

Barrett J Jr, **Bayona M**, Tew WP, and Wilson AA: Early Detection of Meniscal Pathology in a Population with Osteoarthritis: A New Method. 51st Annual Meeting, American Rheumatism Association. Washington, D.C. June 1987.

Bayona M and Szklo M: Epidemiological Patterns of Blood Pressure in Children. First Congress on Hypertension in Central America, Panama, and The Caribbean Region. San José de Costa Rica, Costa Rica, Central America. 1983.

Bayona M and Szklo M: Epidemiology of Hypertension. First Congress on Hypertension in Central America, Panama, and The Caribbean Region. San José de Costa Rica, Costa Rica, Central America. 1983.

11. INVENTIONS

Matta Jaime and **Bayona Manuel**: Host-cell reactivation (HCR) assay with luciferase reporter gene used to measure DNA repair capacity in human lymphocytes as a screening test for breast cancer (In Progress, Patent Pending). Ponce School of Medicine Public Health Program. Ponce, Puerto Rico.

García-Rubio Luis, **Bayona Manuel**: Method and apparatus for a fast and non-invasive diagnosis of malaria (Patent Pending). University of South Florida, Tampa, Florida.

García-Rubio Luis, **Bayona Manuel**, Potter Robert, Leparc German: Spectrophotometric

characterization of human blood. University of South Florida, Tampa, Florida. 1994.
(Method and apparatus for identification of blood types. Patent No. 5,589,932)

12. SELECTED GRADUATE ADVISEES AND POST-DOCTORAL FELLOWS

Olga Lucia Pineda, R.N. (M.S.). Understanding Latinos Cultural Beliefs and Practices: A Culturally Sensitive Nursing Approach for Latino Women Caring for Children with Asthma. University of Nevada, Reno 2007.

Sandra Nofsinger (B.S.) Predictors for asthma severity. School of Public Health, College of Health and Human Sciences, University of Nevada, Reno, 2006.

Marco Marruffo, M.D., M.S. (Dr.P.H.). Prognostic factors for severe and fatal asthma hospitalizations in the State of Texas. University of North Texas, Health Science Center School of Public Health 2005.

Carolina Alvarez-Garriga, M.D., S.C.P. (Dr.P.H.). Risk factors for asthma severity in the United States. University of North Texas, Health Science Center School of Public Health 2005.

Eliane Ignotti, R.N., M.P.H. (Ph.D.). Predictors for leprosy transmission and epidemiological surveillance. University of North Texas, Health Science Center School of Public Health and National School of Public Health, Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro, Brazil 2004.

Neda Moayad (Dr.P.H.) Epidemiological Study of Severe Type II Diabetes in Latinos with Emphasis on Social, Behavioral, and Life Style Factors. University of North Texas, Health Science Center School of Public Health 2004.

Ann Trombley (M.P.H.) Breastfeeding and Asthma. A cross-sectional study based on data from NHANES 199-2000. University of North Texas, Health Science Center School of Public Health 2003.

Carolina Alvarez-Garriga, M.D. (Specialty Degree in Malariology and Vector Born Diseases (S.C.P.)). Carabobo University, Estado Aragua. A predictive epidemiological model for malaria incidence, 2003.

Chrisite Egbuchunam, M.D. (MPH) Potential Predictors of Hipertensión among Children in Fort Worth, Texas; A Cross-Sectional Epidemiological Study. University of North Texas, Health Science Center School of Public Health 2002.

Patrick Moonan (MPH). Geospatial and Molecular Clustering of Mycobacterium tuberculosis, Tarrant County, Texas, 1993 – 2000. University of North Texas, Health Science Center School of Public Health 2002.

Edward Kosterman (M.P.H.) Drug Resistant Tuberculosis and strain clustering. DNA typing as a tool for tuberculosis surveillance University of North Texas, Health Science Center School of

Public Health, 2001.

Jason Zell, M.S., D.O.(M.P.H.) Intrinsic Risk Factors for Bilateral Hernia as Confirmed by Laparoscopy. Nova Southeastern University Public Health Program 2000.

Badeya Al-Bander, DVM (M.P.H.). A Case-Control Study of Risk Factors for Allergic Rhinitis in Southern Puerto Rico. Nova Southeastern University Public Health Program 2000.

Lynette Fodor (M.P.H.) Proposed Dental Insurance Plan for Nova Southeastern University College of Dental Medicine. Nova Southeastern University Public Health Program 2000.

Marco P. Marruffo, M.D., M.S. (Visiting Scholar) Epidemiology of Chagas' Disease in Venezuela. Nova Southeastern University Public Health Program 1999 - 2000.

Esther Amador (M.P.H.), Risk Factors for Asthma in Puerto Rico. Nova Southeastern University Public Health Program 1999.

Kristina Dike (M.P.H.), Prognostic Factors for Endometriosis. Nova Southeastern University Public Health Program 1999.

Steven Friedman (M.P.H.), Risk of Death and Injuries due to Lightning in Florida. Nova Southeastern University Public Health Program 1998.

Rosa Maria Rodriguez (M.P.H.), Mortality Trends and Geographic Distribution of Asthma in Florida. Nova Southeastern University Public Health Program 1997.

Laurel Kitchen (M.P.H.), Risk Factors for Ulcerative Colitis. Nova Southeastern University Public Health Program 1997.

Michelle Walczak (M.P.H.), Prognostic Factors for Crohn's Disease. Nova Southeastern University Public Health Program 1997.

Clara Salazar, M.D. (M.P.H.), Morbidity in Inner-City Population of Miami, Florida. Nova Southeastern University Public Health Program 1996.

Sandra Pagano (M.P.H.), Epidemiology of Drug Resistance in Tuberculosis. University of South Florida School of Public Health 1995.

Stella Novitsky, M.D., M.P.H. (Visiting Scholar), Epidemiology of Drowning, and Epidemiology of Leprosy, University of South Florida School of Public Health 1995.

Vera Lucia Gomes de Andrade, M.D., MPH (Ph.D.): Epidemiology of Leprosy, University of South Florida School of Public Health, Tampa, Florida and National School of Public Health Oswaldo Cruz Foundation (FIOCRUZ), Rio de Janeiro 1995.

Stella Novitsky M.D. (M.P.H.) Epidemiological Review of Leprosy, University of South Florida School of Public Health, Tampa, Florida 1994.

Kalliope Halkias (M.P.H.) Secular Trends in the Epidemiology of Drug resistant Tuberculosis in Florida. University of South Florida School of Public Health, Tampa, Florida 1993.

Maria Cristina Rangel Sharpless, M.D., MPH (Visiting Scholar) Epidemiology of Onchocerciasis, 1991 and Prognostic Factors for Ocular Damage in Onchocerciasis. University of South Florida School of Public Health, Tampa, Florida 1989.

Shi, Jingpu, M.D., MPH, (Visiting Scholar) Epidemiology of Hepatitis A, University of South Florida School of Public Health, Tampa, Florida 1990.

Eric Rosenberg, (M.S.P.H.), Epidemiological Determinants of a High Risk Behavior Associated with Human Immunodeficiency Virus Infection in Women of Childbearing Age. University of South Florida School of Public Health, Tampa, Florida 1991.

Julia Havelin (M.P.H.), Analysis of the Epidemiology of Onchocerciasis in a Mexican Community in 1945, University of South Florida School of Public Health, Tampa, Florida 1991.

Kathy Hurt, (M.P.H.), Surveillance System for Gonorrhea in the Tampa Bay Area. University of South Florida School of Public Health, Tampa, Florida 1990.

Darlene Douglas, (M.P.H.): Eosinophilia Myalgia Syndrome (EMS): Florida Registry, University of South Florida School of Public Health, Tampa, Florida 1990.

Barbara Uzenoff (M.P.H.): Epidemiological Review of Onchocerciasis. University of South Florida School of Public Health, Tampa, Florida 1989.

Patricia L. Parmerlee, (M.P.H.): Epidemiological stratification as an alternative for Malaria control. University of South Florida School of Public Health, Tampa, Florida 1988.

SELECTED COURSES DEVELOPED AND TAUGHT

Biostatistics for Epidemiologists (Ponce School of Medicine Public Health Program, Course Number 7015)

The course covers the main biostatistics procedures used by epidemiologists as they apply to specific public health problems. A number of topics in the biostatistics analysis of epidemiological data are included such as multiple linear regression, logistic regression, survival curves and the Cox's proportional hazards regression analysis. The identification and adjustment of confounding and how to handle and interpret interactions between variables by using multiple adjustment procedures are integral part of this course. This class includes lectures and a large proportion of practical sessions such as in-class computer exercises and homework.

Measures of Association and Potential Impact (General Directorate of Epidemiology of Mexico)

This course was designed as part of the graduate education of field epidemiologists in Mexico. Measures of frequency and association between disease and risk factors, statistical significance and confidence intervals are included. This course emphasizes

measures of attributable risk as elementary statistical models to evaluate the impact of control measures. The concept, calculation and uses of the endemic channel to monitor disease trends are also included. Calculations are carried out using the online surveillance software developed by the General Directorate of Epidemiology of Mexico.

Design and Analysis of Cohort Studies (University of Puerto Rico School of Public Health)

This course includes the most important concepts for the design and statistical analysis of cohort studies commonly used by researchers in epidemiology, medicine and other public health fields. It includes a review of cohort study designs, their uses, advantages and disadvantages, sources of bias, confounding and interaction, and how to prevent or minimize them. The course emphasizes the study and calculation of measures of disease frequency and association, the procedures to obtain Kaplan – Meier survival curves, and the uses of multivariate analysis using the Cox Proportional Hazards Model. The course includes lectures and practical sessions in a computer laboratory using the SPSS statistical package.

Fundamentals of Epidemiology (University of Nevada, Reno SPH)

This course is considered the primer in epidemiology at the School of Public Health of the University of Nevada, Reno. Students develop basic ethical, conceptual and analytical skills in the design and conduct of epidemiological studies; understanding the process of epidemiological surveillance, the evaluation of diagnostic tests, and the investigation of epidemics. The course includes lectures and practical sessions supervised by the instructor. Students are responsible for the completion of written homework exercises using SPSS and Epi Info, reading assignments and passing biweekly tests.

Quantitative Methods in Epidemiology (University of North Texas SPH)

This course extends the principles and concepts covered in basic and intermediate level methods in Epidemiology. It includes an in-depth discussion of study designs and state-of-the-art methods for analyzing epidemiological data. Quantitative methods covered start with the analysis of stratified data through multivariable modeling. Methodologies for ecological studies, cross-sectional, case-control, cohort and mixed designs are considered. The statistical analysis packages, SAS, SPSS and Epi Info 6.0, are used for class assignments and projects. This course features the application of methods of analysis, such as matching, stratified Mantel-Haenszel analysis, logistic regression, Poisson regression, and Cox's proportional hazards regression model. Data sets are provided to allow students to gain experience with each method considered. The main goal of this course is to allow the student to develop a better understanding of statistical computing and analytic approaches to problems in epidemiological data analysis as applied to different study designs. Department of Epidemiology, UNT Health Science Center School of Public Health 2002 - 2005.

Epidemiology of Diseases of Public Health Importance (University of North Texas SPH)

This course includes important methodological issues in epidemiology and biostatistics that are commonly used to read and interpret public health literature as well as an overview of major epidemiological features of chronic and infectious conditions such as cardiovascular diseases, cancer, diabetes, injuries, AIDS, tuberculosis, dental caries, periodontal disease and nosocomial infections. Department of Epidemiology, UNT Health Science Center School of Public Health 2002 - 2004.

Epidemiological Surveillance (University of North Texas SPH)

This course includes the application of epidemiological methods to an important professional area of public health. The class is devoted to the planning, management, and data analysis of public health surveillance systems. The steps for planning a surveillance system, criteria for identifying high priority health events for surveillance, types of surveillance systems, data collection, data processing, quality control, analysis and the interpretation of surveillance data are included. This course also encompasses the basis for evaluation of surveillance systems, and the methods used for screening of disease. The use of surveillance systems for the evaluation of public health interventions is an important part of the course. A demonstration of current computerized surveillance systems is also included. UNT Health Science Center School of Public Health 2002 - 2003.

Epidemiology of Tropical Diseases (University of North Texas SPH)

This course presents an epidemiological survey of common tropical diseases both in the United States and abroad and the basic epidemiological and statistical methods used in the prevention, control and identification of major risk factors, vector transmission and etiology of such diseases. Detailed discussions of the Epidemiology of selected diseases such as malaria, dengue, Chagas' disease, Hansen's disease, leishmaniasis, cholera, onchocerciasis and selected emerging viral hemorrhagic fevers are included. School of Public Health, University of North Texas 2002 - 2005.

Epidemiological Research Methods (University of North Texas SPH)

This course extends the principles and fundamental concepts covered in the course Principles of Epidemiology. Emphasis is on methodological issues, potential sources of bias, and the use of multivariate modeling techniques. Course content includes the planning, implementation, and conduct of epidemiological studies, as well as the analysis and presentation of collected data. Students will develop conceptual and analytical skills in the design and conduct of epidemiological studies, and in the evaluation of data collection and processing. The course includes lectures and computer laboratory practical sessions supervised by the instructor. Students are responsible for the completion of written homework exercises and reading assignments. School of Public Health, University of North Texas 2000. School of Public Health, University of North Texas 2002 - 2003.

Principles of Epidemiology (University of North Texas SPH)

Epidemiology is the study of the distribution and determinants of health and disease in human populations and the application of this study to the control of disease. Because of the unique

focus of epidemiology, it is considered a basic science of public health. A solid understanding of the principles of epidemiology is essential to practice of public health. Thus, this course is a core curriculum requirement for all M.P.H. degree students. Students will develop conceptual and analytical skills in the design and conduct of epidemiological studies, understand the process of epidemiological surveillance, the evaluation of diagnostic tests, and the investigation of epidemics. The course includes lectures and computer laboratory practical sessions supervised by the instructor. Students are responsible for the completion of written homework exercises and reading assignments. School of Public Health, University of North Texas 2001 - 2005.

Infectious Disease Epidemiology (University of North Texas SPH)

This course presents a survey of common infectious diseases both in the United States and abroad and the epidemiological and basic statistical methods used in the identification, prevention and control programs of such diseases. Detailed discussions of the methods used for epidemic investigations, and the Epidemiology of selected diseases such as HIV/AIDS, tuberculosis, upper respiratory infections, sexually transmitted diseases, hepatitis A, B, and C, measles, infectious mononucleosis, and Ebola-Marburg viral diseases may be included. School of Public Health, University of North Texas 2001 - 2004.

Biostatistics for the Public Health Professional (University of North Texas SPH)

This course provides students with the basic knowledge and skills to effectively use biostatistics in different research design and data analysis, and to understand articles in related professional journals. Topics include choosing correct statistical methods and study designs in public health research and practice; descriptive statistics; basic probability and probability distributions; estimation and hypothesis testing, simple linear regression, introduction to analysis of variance and an introduction to the use of statistical software packages. School of Public Health, University of North Texas 2000 - 2001.

Research Methods in Public Health (NOVA SE University PHP)

This is an intermediate level course that includes epidemiological research methodology such as design and analytical techniques for reducing or eliminating bias, study and report of effect modification and controlling for confounding variables. Bivariate and multivariate statistical data analysis by using Epi info and SPSS. This course also includes qualitative research methods as currently used in Public Health. Public Health Program, College of Allied Health, Nova Southeastern University 1996 - 2000.

Also taught in Spanish with the title " Métodos de Investigación Epidemiológica" at the School of Malariology and Environmental Health, Venezuelan Ministry of Health and Carabobo University, Maracay, Venezuela 1998 - 2000.

Research Methods in Dental Medicine (NOVA SE University PHP)

This is an introductory-intermediate level course that includes epidemiological research methodology such as measures of disease frequency and association commonly used in dental

research, observational and experimental study designs, unadjusted and selected multivariate statistical analysis, techniques for reducing or eliminating bias, study and report interaction of variables and controlling for confounding variables. This course also includes selected qualitative research methods as they may apply to research in dental medicine. College of Dental Medicine, Nova Southeastern University 1998 - 2000.

Computer Applications in Public Health (NOVA SE University PHP)

This course includes techniques of data entry, data editing, statistical analysis, and presentation or reporting of public health data. The course includes the computation of measures of disease frequency and association, evaluation of screening and diagnostic procedures, difference of two and more sample means by using the t test, ANOVA and non-parametric tests. Association of two continuous variables by using simple linear regression and correlation. Sample size to estimate a prevalence rate in surveys and comparison of two proportions in case-control and cohort studies. Sample power calculations and presentation of the results of an epidemiological study. Public Health Program, College of Allied Health, Nova Southeastern University 1995 - 2000.

Also taught in Spanish with the title "Informática Aplicada a la Epidemiología" at the School of Malariology and Environmental Health, Venezuelan Ministry of Health, 1996 - 1999.

Epidemiology (NOVA SE University PHP and University of South Florida SPH)

This course provides the graduate student, epidemiological methods used in research, epidemic investigations and surveillance systems. It includes measures of disease frequency and association, study designs for observational and experimental studies, outbreak investigations, screening programs and surveillance systems. Public Health Program, College of Allied Health, Nova Southeastern University 1995 - 2000. A web-based version was developed for online instruction. Public Health Program, College of Allied Health, Nova Southeastern University 1999 - 2000. This course was also taught at the Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida 1988 - 1995.

Medical Epidemiology and Biostatistics (NOVA SE University PHP and University of South Florida SPH)

This course provides the medical student with basic level concepts and skills of epidemiology and biostatistics used by health care professionals in the clinical setting. This course also provides the basis for better understanding of the medical literature. College of Osteopathic Medicine, Nova Southeastern University 1997 - 2000. This course was also taught at the Department of Internal Medicine, College of Medicine, University of South Florida 1988 - 1995.

Epidemiology of Diseases of Major Public Health Importance (University of South Florida SPH)

This course includes an overview of major epidemiological features of chronic and infectious conditions such as cardiovascular diseases, cancer, diabetes, injuries, AIDS, tuberculosis, dental caries, periodontal disease and nosocomial infections. Department of Epidemiology and

Biostatistics, College of Public Health, University of South Florida 1988 - 1995. This course was also taught at the Department of Epidemiology and Biostatistics, College of Public Health, University of South Florida 1988 - 1995.

Epidemiology of Infectious and Tropical Diseases (University of South Florida SPH)

This course includes a review of epidemiological research techniques used in infectious and tropical diseases and provides an overview of the epidemiology of selected infectious and tropical diseases such as AIDS, tuberculosis, leprosy, Ebola hemorrhagic fever, dengue, malaria, Chagas' disease, cholera, legionellosis, leishmaniasis, STDs, onchocerciasis, and trachoma. Department of Epi. and Biostat., College of Public Health, University of South Florida 1988 - 1995.

Epidemiological Surveillance of Vector Born Diseases (Carabobo State University Venezuela)

This course includes a comprehensive discussion of the concepts and definitions used in epidemiological surveillance, as well as a review of the modern computerized methods of surveillance for data gathering processing, statistical analysis and reporting. The course also includes demonstrations of computer-based surveillance systems such as those developed by the CDC in the United States, and those of the Ministries of Health from Brazil, Venezuela and other countries. During the course, the student develops a simplified computer-based surveillance system. Taught in Spanish at the Escuela de Malariología y Saneamiento Ambiental. Maracay, Venezuela 1998 - 2000.

Clinical Trials (University of Puerto Rico School of Medicine)

This course includes selected issues on the design and conduct of clinical trials. This course was given in Spanish as part of the "Medical Research Course Series" at the Recinto Medico, Rio Piedras, Puerto Rico. Course sponsored by the Universidad de Puerto Rico and Glaxo Wellcome Laboratories. January 1998.

Descriptive Biostatistics (Centers for Disease Control and Prevention (CDC))

This is an introductory course oriented to employees of local health departments to enable them to identify and characterize public health data, summarize data to assess the distribution and trends of disease in the population, and construct and interpret frequency distributions and graphs relevant to health related problems. The course includes a review of the measures of disease frequency and association, rate adjustment, and measures of central tendency and dispersion. The participants are trained in the use of Epi Info, as well as Power Point or Harvard Graphics software. Applied Statistics Training Institute (ASTI), National Center for Health Statistics, CDC, 1994 - 1996.

13. REFERENCES

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Revised and Updated September, 2008