

A SANITATION PROGRAM ALONG THE UNITED STATES-MEXICO BORDER

By GEORGE W. COX, M.D.

State Health Officer of Texas, United States

Of all the inter-American agencies working to bring about the diagnosis and clarification of mutual problems and the stimulation of good neighbor policies, the U. S.-Mexico Border Public Health Association has, by far, the most wholesome outlook in more ways than one. It operates on the basic assumption that only a healthy neighbor can be a really good neighbor. It is a truism that disease knows no barriers and that isolation and quarantine are only partial control measures. This, the United Nations recognized from its inception; and it may well be that if the world is so unfortunate as to witness another collapse of a worldwide organization of nations, the surviving agencies will again be those that strive for a disease-free citizenship and country. The League of Nations is just a memory, but the leadership it exercised in the field of public health survived its death in programs and policies which are still active. Undoubtedly, some future speaker will point with proud approval to the long and successful history of cooperation evidenced in the U. S.-Mexico Border Public Health Association.

The modern program of public health is living testimony to the ability and desire of numerous nationals to work together for the common good. It may be that this is simply because our enemy is a common one, but we would rather believe that it is the natural, though often subdued, expression of man's desire to subordinate himself to the welfare of others. There are many who believe that this desire, to work together for the common good, is simply an extension of the instinct of self preservation, which, we are told, is the first law of nature.

Lest we should become too complacent over our past accomplishments, it is in order that we consider what still remains to be done, and what specific actions we may take here—or as Voltaire said, "Cultivate our own garden". First of all, and in the not too distant future, there should be established a full time county health unit in every county in the border area. This, of course, will depend on how and when the funds and personnel can be obtained. And this will be based on the plans and actions which develop from this Association. Until these units can be established, we should concentrate on what can be done in the present, with the tools which we have on hand. Obstacles should not discourage us for it is not important how slim the chances may be. As the Chinese say, "The longest journey begins with the first step," and we have all had the experience of seeing tremendous and successful enterprises grow from what appeared to be acorns of insignificance.

The protection of water supplies, assuring safe domestic water for all the population is a fundamental first in all health programs since, un-

questionably, it is used by all of the population, both young and old. Much water of dubious quality is still being produced and distributed in many of the communities and cities along the border. The strengthening of the sanitation section, by establishing a school to train operators might profitably be considered, as well as the introduction of courses in sanitation in the elementary and high schools.

The necessity for adequate control of the water placed on rail and air carriers that cross the border was shown by an excellent survey made by the engineers from Mexico City and presented at the San Diego conference.

The authorities at Nuevo Laredo embodied good public health engineering principles and design in the construction of a water purification plant and a swimming pool located in that city. These sanitary facilities might serve as a pattern for others to be constructed.

Some thought can profitably be given to adopting standards, in line with other recognized standards, for water used in the manufacture of ice and water used in food processing plants.

The proper disposal of human waste is another *must* in a well balanced public health program. Water carrier sewer systems are now within financial reach of both of our countries and a fair start has been made in this direction. There are, however, still too many surface privies and other sanitation hazards. Treatment of sewage system discharges has also been given consideration by some of the border towns since the Rio Grande is becoming more valuable each year, by reason of increased irrigation and the increased use of water by the ever-growing municipalities.

In the history of public health, a recurring axiom has been that it is simpler to prevent the introduction of diseases carried by human beings than those carried across national borders by animals or insects. This is particularly true of malaria and typhus fever. It has been recognized that neither the mosquito nor the flea could be quarantined along this side of the U. S.-Mexico boundary, and at the meeting held here in Laredo last June by officials from both sides of the border, a program of malaria and typhus control was evolved; and a fair start has been made in activating the program.

The most heavily malarious area of Texas is the border section, and for almost a decade we have carried on a vigorous offensive against the two mosquito carriers—*Anopheles quadrimaculatus* and *A. albimanus*. In addition to some fairly large scale drainage projects of resaca areas, borrow pits, and irrigation canals, mosquito control efforts have gone further and more than 25,000 homes have been sprayed annually with DDT residual spray. As a result of this work, the incidence of this disease has been cut more than 25% during the past three years, and malaria mortality is virtually at the vanishing point. We have reason to believe that barring the reintroduction of malaria by virtue of another global conflict, malaria will disappear from Texas within the next ten

years, and will, no doubt, be as forgotten a plague as yellow fever. I am presupposing, of course, that our border sanitation program will increase in effectiveness as it increases in age—and on this point I have full confidence.

The ultimate, complete eradication of murine typhus fever in the border area is a more serious problem from the public health point of view. Our year-around dusting with DDT powder, combined with poisoning of rats with 1080, gives us hope that we can continue to reduce the incidence of this rat- and flea-borne plague. On December 27th of last year, our morbidity reports showed that there had been 610 cases of typhus fever during the preceding 12 months. Comparing this to the previous years of 1945, which had a total of approximately 1,900 cases, and with 1944, with 1,790 cases, we see that recent scientific advances in the insecticide and rodenticide fields have tipped the fortunes of disease warfare in our favor, although we must take into consideration the flank attack in West Texas—as rats and wildlife threaten us with the menace of bubonic plague.

Industrial wastes from food processing plants have been the source of many complaints, and justify further comprehensive studies in order to bring about satisfactory and economical treatment methods. Similarly, the study of irrigation water, a project which is being sponsored by the School of Mines in El Paso, should certainly be endorsed by this Organization, and other parallel studies should be encouraged elsewhere.

Increased attention is being paid to food sanitation by some of the border cities, and excellent abattoirs and public markets have been constructed and are being maintained by several Mexican cities. These cities should be commended for having taken the initiative, and a similar program should be encouraged all along the border.

Seafood sanitation, especially the certification of oysters as practiced along the Atlantic Seaboard, could well be undertaken. A uniform code, so that these seafood products could have free flow in both directions, would have a most favorable effect in encouraging the expansion of this particular industry.

To the limits of its financial ability, Texas is pledging to undertake an expanded sanitation program in water, waste disposal, food, and rodent and insect control. We are indirectly informed that the other Border States are likewise favoring this program. The tempo of this program can be increased with full support of this Organization, the helpful assistance of the Pan American Sanitary Bureau, and the Institute of Inter-American Affairs.

In order to prevent interest from lagging, it is suggested that a committee of health officials from each one of the states along the Border, together with the Surgeon General of the U. S. Public Health Service and the Dirección General de Sanidad of Mexico, be resolved into a committee to meet at least once a year, and possibly in connection with the Annual meeting of this Association, in order to make continuous in-

ventories as to the progress being made and in order to stimulate further the work where it might be encountering obstacles. As a beginning program for this Committee, it is further suggested that at least one sanitary engineer be assigned from each of the Border states to survey the problems and to supervise and promote a complete sanitation program as aforementioned, with liaison maintained through the Pan American Sanitary Bureau. It would be highly desirable if one sanitarian could be assigned to each county along the Border to activate the program. The present lack of trained personnel necessitates that consideration be given to the establishment of schools for this purpose. The dividends of an effective, mutually cooperative long-range program among all the States on both sides of the Border will far outweigh the cost of the effort.

In conclusion, may I express my thanks for the fine friendship that has developed with our Latin American neighbors in Mexico. We have enjoyed their visits to our office in Austin, their courtesy and hospitality. Let us set an example to the rest of the world by continuing to carry on a cooperative health program; and dedicate ourselves to further cementing the friendship of our two Countries.

PROGRAMA DE SANEAMIENTO DE LA FRONTERA ESTADOS
UNIDOS-MÉXICO (*Sumario*)

De todas las Agencias Interamericanas que laboran en la obtención del diagnóstico y esclarecimiento de problemas mutuos y en la promoción de políticas de buen vecino, la Asociación Fronteriza Mexicana-Estadounidense de Salubridad es la que posee la perspectiva más razonable, y tiene como teoría básica que sólo un vecino sano puede ser un buen vecino. Es sabido que la enfermedad no reconoce barreras y que el aislamiento y la cuarentena sólo representan medidas parciales de control, lo que ha sido reconocido desde su comienzo por las Naciones Unidas. Si desdichadamente ocurriera otro colapso de una organización mundial de naciones, seguramente sobrevivirían aquellas que luchan por la existencia de ciudadanos y países libres de enfermedades. La Liga de las Naciones es sólo un recuerdo, pero a través de sus programas y su política aún se siente su influencia en el campo de la salud pública. Indudablemente, algún futuro orador señalará con orgullo la cooperación eficaz de la Asociación de Salud Pública de la Frontera Estados Unidos-Méjico.

A fin de no enorgullecernos demasiado de lo hecho, debemos pensar en lo que falta aún por hacer. Lo primero de todo, sin dejarlo para un futuro muy lejano, debería ser establecer unidades sanitarias de tiempo completo en todos los condados de la frontera, de acuerdo con los fondos y personal disponibles. Hasta entonces deberíamos limitarnos a lo que podamos hacer con los instrumentos de que disponemos, sin dejarnos desanimar por los obstáculos. Como dicen los chinos: "La jornada más larga comienza con el primer paso" y todos hemos visto surgir de lo que en principio pareció insignificante, empresas de gran éxito.

En todo programa de salubridad es fundamental la protección de los abastecimientos de agua para asegurar agua pura para el consumo; la disposición adecuada de los desperdicios humanos es otro de los pasos primordiales en todo programa de salubridad bien equilibrado.

Sabido es que resulta más fácil evitar la introducción de enfermedades transportadas por seres humanos que las propagadas a través de las fronteras nacionales

por animales o insectos, especialmente en el caso de la malaria y el tifo. Se ha reconocido que ni el mosquito ni la pulga pueden ser sometidos a cuarentena en esta parte de la frontera Estados Unidos-Méjico, y en la reunión celebrada en Laredo durante el mes de junio por funcionarios de ambas fronteras, se desarrolló un programa de control de malaria.

La sección más densamente malárica de la zona de Texas es la de la frontera, habiéndose sostenido durante más de un decenio una campaña contra los mosquitos portadores—*Anopheles quadrimaculatus* y *A. albimanus*. Además de algunos proyectos de drenaje en gran escala de las zonas de resaca, de la excavación de huecos y de los canales de irrigación, los esfuerzos para el control de mosquitos se han extendido hasta pulverizar anualmente 25,000 viviendas con DDT residual, habiendo disminuido en 25% la incidencia de la enfermedad durante los últimos tres años y casi desaparecido la mortalidad por malaria.

Desde el punto de vista de la salubridad, es más importante la erradicación completa del tifo murino en la zona de la frontera. La pulverización durante todo el año con polvo de DDT, así como el envenenamiento de las ratas con 1080 hacen esperar la reducción de esa peste causada por pulgas y ratas. El 27 de diciembre del año pasado se comunicaron 610 casos de tifo durante los 12 meses anteriores, comparado con un total de aproximadamente 1,900 casos en 1945 y 1,790 en 1944.

Los desperdicios de las plantas de envase de alimentos han sido origen de quejas y merecen estudios de métodos de tratamiento satisfactorios y económicos. Igualmente debía ser apoyado por este Organismo el estudio de las aguas de irrigación, proyecto propiciado por la Escuela de Minas de El Paso.

En algunas ciudades de la frontera se está prestando mayor atención al saneamiento de alimentos y se han construido excelentes mataderos y mercados públicos, sostenidos por algunas ciudades de Méjico que merecen encomio por haber tomado la iniciativa, debiendo estimularse un programa semejante a todo lo largo de la frontera.

También debería atenderse la inspección de los mariscos, especialmente el certificado de ostras, como se hace en la costa del Atlántico.

Texas se compromete, hasta el límite de su capacidad económica, a emprender un programa de saneamiento de agua, disposición de aguas servidas, alimento, y control de roedores e insectos, programa que es favorecido por otros Estados de la Frontera, y que podría ser acelerado con el apoyo de esta Organización, la valiosa ayuda de la Oficina Sanitaria Panamericana y el Instituto de Asuntos Interamericanos. A fin de evitar pérdida de interés, se sugiere que una comisión de funcionarios oficiales de los Estados fronterizos, junto con el Cirujano General del Servicio de Sanidad Pública de Estados Unidos y la Dirección General de Sanidad de Méjico, se reúnan por lo menos una vez al año, posiblemente al mismo tiempo que la reunión anual de esta Asociación, a fin de hacer inventarios continuos en cuanto al progreso que se realiza y estimular la labor donde ésta tropieza con obstáculos. Como programa inicial para ese Comité se sugiere que se asigne por lo menos un ingeniero sanitario de cada uno de los estados fronterizos para estudiar los problemas e inspeccionar y promover un programa completo de saneamiento según se menciona más arriba, manteniéndose contacto a través de la Oficina Sanitaria Panamericana. Sería muy conveniente asignar un sanitario a cada condado a lo largo de la frontera para activar el programa. La falta de personal adiestrado requiere que se dé consideración al establecimiento de escuelas para este fin.

En conclusión, deseamos expresar las gracias por la buena amistad desarrollada con nuestros vecinos latinoamericanos de Méjico. Sentemos un ejemplo para el resto del mundo continuando un programa de salubridad cooperativo y cultivemos más aun la amistad de nuestros dos países.