THE PAN AMERICAN SANITARY BUREAU
AND ITS COOPERATIVE WORK IN THE
IMPROVEMENT OF MILK SUPPLIES

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The Pan American Sanitary Bureau and Its Cooperative Work in the Improvement of Milk Supplies

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As an introduction to the subject matter of this paper, it may be well to explain what is the organization which I have headed since 1920, its scope, duties, activities, and accomplishments.

To those accustomed to the smooth, efficient, and comparatively uniform working of quarantine operation, it may be hard to realize that even in the early part of this century arbitrary and often drastic procedures were practically the only methods used to prevent the introduction of disease in the various ports. Long detention and harsh restrictions handicapped commerce among nations and proved costly when not paralyzing all trade. Acting with wisdom and true foresight, a number of public health statesmen of all our republics decided to put an end to this embarrassing and awkward situation. As a result of their combined efforts, the Pan American Sanitary Conferences and the Pan American Sanitary Bureau came into existence. It is because of the continued activities of these two bodies that the old and faulty systems have been gradually discarded, scientific and fairly standardized quarantine measures established on our continent, and new developments made the subject of conference and discussion among health authorities in order to determine whether changes or new interpretations are required in our quarantine regulations. The benefit of this arrangement to international trade and commerce among nations can hardly be overestimated and is apparent every day.

ORGANIZATION

The Pan American Sanitary Bureau, an independent official public health organization, was created by the Second International American Conference (1901-02), organized by the First Pan American Sanitary Conference (1902), and reorganized by the Sixth (1920). It is governed by a Directing Council elected, together with the Director, at each Pan American Sanitary Conference, and supported by annual quotas contributed pro rata by all the American republics. On this Council, all the republics are represented by rotation at each Conference.

In point of time, our Bureau is the oldest of the great international health bodies, it having come into existence several years before the International Office of Public Hygiene of Paris, and two decades before the Health Section of the League of Nations. Another point worthy of note is that, while the two organizations named have performed work of the highest value, neither of them has been able to enlist in its membership all the countries included in its field of activities. On the contrary, the Pan American Sanitary Bureau is actively supported by all the American republics, and all of them share in its work and achievements. Perhaps the best evidence of its effectiveness is that an increase in its maintenance funds was approved in the Tenth Pan American Sanitary Conference, promptly ratified by the majority of the Governments concerned, and favorably recommended in the others as well as by the Eighth International Conference of the American States, which met in December, 1938 in Lima.

In addition to the staff in Washington, including an Assistant Director, Secretary, Editor, legal assistant, translators, etc., the Bureau maintains in the field a force consisting of four traveling representatives,
two sanitary engineers, and one epidemiologist. Trips to the different countries are also made from time to time by members of the Washington staff. All the field work is pre-eminently on a co-operative basis with the National Health Departments.

Under the provisions of the Pan American Sanitary Code (1924) the Bureau has become the center of coordination and information in the field of public health in the American republics. It also acts as a consulting body at the request of national health authorities, carries on epidemiological and scientific studies, and publishes a monthly Bulletin as well as other educational material. While primarily interested in the prevention of the international spread of communicable diseases, it is also naturally concerned in the maintenance and improvement of the health of the people of the twenty-one American republics.

Adjustment of quarantine matters long remained the main subject in sight for Pan American health co-operation. For nearly two decades, the Bureau itself was more or less a paper organization, showing hardly any signs of life between conferences. It is a source of some gratification for me to recall that, starting with my election as Director at the Sixth Conference in 1920, the Bureau began the most active and useful period of its life. A few dates will make this clear:

1920. Complete reorganization, and increase of appropriation from $5,000 to $20,000 a year. Only one employee on the staff.
1922. Offices established and publication of Bulletin started.
1923. Officer detailed to visit South American countries.
1924. Appropriation increased from $20,000 to not less than $50,000. Seventh Pan American Sanitary Conference held at Havana, at which the Pan American Sanitary Code (first treaty to be ratified by all the American Republics) was approved.
1926. A full-time Assistant Director appointed. First Conference of National Directors of Health held in Washington.
1927. Eighth Pan American Sanitary Conference held in Lima. Four employees on Washington staff.
1928. Full-time editor appointed, additional personnel retained, and scope of Bureau enlarged.
1929. First session of Directing Council held in Washington. First field employees (one Traveling Representative and one Epidemiologist) appointed for duty in the campaign against plague initiated on the western coast of South America.
1930. Mailing list of Bulletin vastly increased.
1937. Sanitary Engineers retained by the Bureau and assigned to duty in Latin America.

The original raison d'être of the Bureau was, as pointed out before, standardization of quarantine procedure. This was the outstanding sanitary problem at a time when yellow fever ravaged periodically in both the countries South of the Rio Grande and our own Southern States; when plague had just gotten a foothold in the Western Hemisphere; when memories of the last epidemic of cholera were still fresh in the minds of the people; when the benefits of smallpox vaccination still failed to reach hundreds of thousands; and the cause of typhus fever remained unknown.

As each of these scourges was gradually being brought under control, as public health organization began to get better rooted and expanded from mere defense against epidemics to actual and constant prevention work, the Bureau was
called upon to act and furnish advice on
many different subjects, all of them re-
sulting from the development and growth
of health activities throughout Latin
America, which, in its turn, the Bureau
was also helping to expand and organize
on a solid basis.

Article 56 of the Pan American Sanita-
tary Code grants all necessary powers in
this direction. As information and ad-
vice as to methods of combating disease
and maintaining health was solicited and
furnished, consideration naturally had to
be given to epidemiological features, in-
cluding vectors and vehicles of disease
and, of course, insects, water, food, milk,
etc.

MILK WORK

The awakened interest in such prob-
lems as infant mortality, child welfare,
and better nutrition necessarily led both
health authorities and physicians in Latin
America as elsewhere to an earnest and
careful consideration of questions con-
necting with milk from various stand-
points. The most complete food man
has at his disposal, and almost essential
in childhood, milk also involves positive
risks when not properly produced and
handled.

The Pan American Sanitary Bureau had
also begun of its own accord a series of
efforts along the same lines. Beginning
in 1928, papers have been published from
time to time emphasizing the value of
milk as a food, especially in childhood,
and methods to be used in order to insure
a safe supply. The translation into Span-
ish and general distribution of the Standard
Milk Ordinance (now Code) of the
United States Public Health Service have
exerted an influence on the movement for
an increased consumption of milk and
improvement of this product. In this
connection, the work of the Pan American
Committee on Nutrition, appointed by
me in 1936, in accordance with resolu-
tions approved at previous Sanitary Con-
ferences, will undoubtedly prove to be of
the greatest usefulness through the influ-
ence which its activities and reports have
exerted and will continue to exert.

At a number of the recent Pan Ameri-
can Sanitary Conferences the subject has
been fully discussed and resolutions on
milk approved. The Eighth Conference
(1927) recommended attention to modern
scientific methods for production of safe
milk and the need of a modern milk or-
dinance; the Ninth Conference (1934)
expressed the need of cooperation among
national and local authorities as well as
with private bodies and individuals in
order to secure an increased and better
milk supply; the Tenth Conference
(1938) recommended measures aimed at
increasing the production and consump-
tion of safe milk and milk products.

The activities of the Pan American Sanitary Bureau in this direction have led
to frequent inquiries on the part of health
authorities and others interested on a
number of technical points, including con-
struction of dairy barns, bovine tuber-
culosis, pasteurization methods, tests of ef-
fectiveness of pasteurization, organization
and equipment of milk distributing sta-
tions, milk examinations, etc. Even on
more than one occasion, drafts of laws or
ordinances on milk have been submitted
to the Bureau for advice.

A glance at conditions regarding milk
in different Latin American countries may
prove of interest.

Consumption of milk. It is a fact on
which we have often commented in our
Bulletin that milk consumption in Latin
America is far below the amounts recom-
manded in the United States as conducive
to health. Consumption in Argent-
a is higher than in any other country
represented in the Pan American Sanitary
Bureau, namely, about 137 cc. a day per
capita. In Buenos Aires itself it is more
than twice as high, about 333 cc. In none
of the other Argentine cities in this pro-
portion reached, Santa Fe, with 200 cc.
being probably the highest in the scale.
In Chile, consumption is much lower,
not more than 82 cc. per capita, although
here again it is higher in the two largest
cities, namely, Santiago (200 cc.) and
Valparaiso (133 cc.). Consumption in
Brazil is much lower, even Rio and Sao
Paulo barely reaching 150 cc. per capita.
Among other Latin American cities, Havana probably has the highest consumption (above 250 cc.), Quito (220 cc.), Mexico City and Asuncion (about 200 cc.). Lima (133 cc.), Caracas (110 cc.), and Bogota (100 cc.), all have much lower figures and at that higher than those belonging to the smaller communities. Of course, these data must be considered as merely approximate, but they may also be accepted as suggestive of a phenomenon widely deplored by local physicians and health workers, namely, an inadequate consumption of milk, especially at the age when this food is most needed.

Diseases affecting cattle. Among diseases affecting cattle and therefore the quantity and quality of milk, tuberculosis occupies the foremost place. A number of surveys have been made in several countries to determine the extent of this problem. Partial studies have shown a 30-35 percent infection rate in Chile as a whole, and 20 percent in Santiago and the neighborhood. In Argentina, positive rates of 8-17 percent have been found in different areas. In Brazil, rates varying from less than 1 percent to over 20 percent have been reported; and in Venezuela from less than 1 percent to more than 50 percent. Figures for Puerto Rico and Jamaica have been less than 3 percent. The real menace lies in the fact that previously free areas have been infected after the importation of foreign breeds, and as open air pasture is abandoned for stables. Authorities in cattle-raising countries are, however, alive to this danger, and are gradually putting into effect plans for detecting and controlling the disease in animals.

Another condition, the presence of which was formerly unsuspected, has now been found in practically every American country. I refer to infectious abortion. The seriousness of this problem is being realized, and preliminary surveys have revealed prevalence rates as high as 80 percent in some herds in Chile. Active measures have been taken against this disease in a number of countries, especially Argentina. In Mexico, a Congress on undulant fever was held only a few months ago. Mastitis is also a prevalent condition, 39 percent of the cows examined in the Province of Santiago showing the disease. An even more serious condition is foot-and-mouth disease. Perhaps its worst danger consists in its occasional exacerbations. A recent epizootic in Chile has caused losses amounting to hundreds of millions of pesos and a decrease in milk production estimated as high as 50 percent.

Pasteurization. Properly performed, pasteurization will safeguard against the spread to man of diseases affecting cattle. The measure, however, is still fighting its way slowly into recognition in many places in Latin America. The pasteurized proportion of the total milk consumption is estimated at 85 percent in Rio, 75 percent in Santiago, less than 50 percent in Habana, about 40 percent in Buenos Aires, 10-40 percent in other Argentine towns, and 8 percent in Asuncion. As pointed out by the Bureau, however, on more than one occasion, inefficient pasteurization is worse than no pasteurization, since it creates a sense of false security. Much can be said in behalf of the practice of double boiling, so common in Latin America, with a view to preventing souring of milk.

Advance. Rules aiming to raise the sanitary quality of milk have been promulgated in practically all Latin American countries. A congress on milk has been held recently in Venezuela at which means for encouraging the raising of cattle and the upbuilding of the milk industry were discussed, and similar action has been taken or is being considered in other countries. While much still remains to be done, and the solution of the problem may prove difficult because of the many factors involved, the advances already achieved in Latin America deserve recognition and encouragement. We find everywhere a real desire to improve conditions and help the cause of health. In this field, milk sanitation has a definite and important place of its own, which is being increasingly recognized.