



# XIX PAN AMERICAN SANITARY CONFERENCE

## XXVI REGIONAL COMMITTEE MEETING

WASHINGTON, D.C., U.S.A.

September-October 1974

Provisional Agenda Item 37

CSP19/31 (Eng.)  
CORRIGENDUM  
26 September 1974  
ENGLISH/SPANISH

TEXTBOOK PROGRAM

### CORRIGENDUM

1. Page 3, paragraph 4, line 1: Please change "column" to read "line."
2. Please substitute the annexed pages, 11, 12 , and 13 (Tables V, VI, and VII), for those of same number in document.

Annexes

TABLE V

## CAPITAL REQUIREMENTS FOR MEDICAL TEXTBOOKS - SUMMARY 1974-1976

(Inventory plus purchases minus sales, at cost = Net capital required for inventory)

	1st Quarter		2nd Quarter		3rd Quarter		4th Quarter	
	Total number of books	Total textbook cost	Total number of books	Total textbook cost	Total number of books	Total textbook cost	Total number of books	Total textbook cost
Inventory	87,921	\$ 899,999						
Purchases	30,000	204,900	112,724**	\$1,063,370**	92,128**	\$1,211,893**	119,492	\$1,390,781
Sales	(5,194)	(50,324)	(21,819)	(194,365)	(22,636)	(222,013)	(45,955)	(441,630)
Net Cap. Req.	112,727	1,063,374	92,405	1,215,350	119,492	1,390,781	179,537	1,831,652
				1 9 7 4				\$
Inventory	179,537	1,724,882*	225,982	2,153,690	190,057	1,828,171	227,132	2,197,702
Purchases	72,500	666,570	7,500	57,750	80,500	765,800	-	-
Sales	(26,055)	(237,762)	(43,425)	(383,269)	(43,425)	(396,269)	(58,244)	(528,613)
Net Cap. Req.	225,982	2,153,690	190,057	1,828,171	227,132	2,197,702	168,888	1,669,089
				1 9 7 5				
Inventory	168,888	1,722,616*	259,004	2,637,283	211,417	2,162,189	256,548	2,620,421
Purchases	119,000	1,202,065	-	-	92,600	933,074	-	-
Sales	(28,884)	(287,398)	(47,587)	(475,094)	(47,469)	(474,842)	(66,290)	(668,238)
Net Cap. Req.	259,004	2,637,283	211,417	2,162,189	256,548	2,620,421	190,258	1,952,183
				1 9 7 6				
Inventory	190,258	2,268,339	290,350	3,441,431	234,700	2,798,130	276,550	3,290,269
Purchases	133,000	1,559,340	-	-	97,500	1,135,440	-	-
Sales	(32,908)	(386,248)	(55,650)	(643,301)	(55,650)	(643,301)	(76,510)	(900,620)
Net Cap. Req.	290,350	3,441,431	234,700	2,798,130	276,550	3,290,269	200,040	2,389,649
				1 9 7 7				

\* In order to simplify the projections, a weighted average of the purchase prices of existing year-end inventories and the new purchases during the year has been calculated separately for 1975, 1976 and 1977. This means that a single value for each year has been assigned to books in inventory, sold and purchased. As a result, the value of the books in stock changes once each year, at the beginning of the year. This explains why the figures for inventory value at the end of 1974 are different from the opening figures for 1975, etc.

The figure for 1975 is lower than the figure for 1974 because of the anticipated change in purchasing policy resulting in lower prices for books purchased in 1975. Thereafter, figures become higher than for the preceding year because of the effects of inflation.

\*\* Opening inventories in these quarters are lower than previous quarter closings because of lost and damaged books.







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ORIGINAL: ENGLISH-SPANISH

TEXTBOOK PROGRAMIntroduction

The purpose of this document is to report to the Pan American Sanitary Conference on the progress of the Textbook Program and to present proposals related to its future development. The policies of the Governing Bodies established at previous meetings are summarized below to facilitate consideration of this project.

In 1966 the XVII Pan American Sanitary Conference approved Resolution XV, which recognized the value and importance of this Program for the professional training of future physicians, its potential for extension to other health professions, and the possibility of including other teaching materials. The Pan American Sanitary Conference resolved to commend the initiative of the Director and authorized him to negotiate with the Inter-American Development Bank to finance the program and instructed the Executive Committee to approve the loan agreement if it was satisfied that the terms were the best available.

In 1967 it became obvious that PAHO would have to demonstrate the feasibility of the Program before a loan would be approved. The Directing Council at its XVII Meeting approved Resolution XXI reaffirming the importance of the Program, and endorsing action of the Executive Committee approving a demonstration program.

By 1969 the demonstration program had created more favorable prospects for a loan. The Directing Council at its XIX Meeting approved Resolution XXXVI, instructing the Director to continue his negotiations with the Inter-American Development Bank and supporting the activation of the Pan American Health and Education Foundation to receive the loan to finance the Program.

In 1970 the loan was provisionally approved by the Inter-American Development Bank. The XVIII Pan American Sanitary Conference approved Resolution XXIX, expressing its satisfaction with the arrangements, including the undertaking of necessary financial obligations and support. It authorized the Director to obtain a letter of credit to guarantee PAHEF's repayment of the loan, as required by the Inter-American Development Bank.

The Loan Agreement was signed on 5 February 1971. In October the Directing Council at its XX Meeting approved Resolution XVIII congratulating the Director on the Program, and thanking the Inter-American Development Bank for the loan and PAHEF for its cooperation in the joint Program.

#### Medical Textbook Program

After several years of moderate and steady growth, the Medical Textbook Program has shown a sharp increase in sales during the first half of 1974. Current sales rates are beginning to reach the high levels originally anticipated in the loan application to the Inter-American Development Bank, and it is expected that they will even surpass the original projections. As a result of the expected increase in volume and the rising costs, it will be necessary to obtain additional capital if an adequate and equitable distribution of textbooks to students in all participating countries is to be attained.

Certain key indicators mark the rapid program growth. When sales started in 1969, only four titles were offered (see Table III). Now in September 1974, 17 separate titles in 14 different subjects are available, with projections for 1976 of 27 titles and 22 subjects. Even more important, the number of actively participating schools has jumped from an original 60 to a current total of 109. This signifies an increase in students enrolled from approximately 50,000 to over 150,000. The inclusion of Argentina, which recently signed the agreement to participate in the Program, will swell this total to over 175,000. Another important aspect to consider is the increasing enrollment within the individual schools of medicine. Organization figures have shown an increase of 13,000 students per year between 1967 and 1971, about 15% per year. At this rate, the Textbook Program will be selling in a total market of over 200,000 students by 1977.

Not only will the size of the market increase rapidly, but the portion of that market reached through the Program will also grow considerably. Recent studies have indicated that the Program could be better known at certain universities. A medical education consultant is now visiting faculties of medicine and will recommend a plan to supplement promotional activities already being carried out. Frequently, sales levels have been held down because of the slowness of book production and shipping. A new Organization policy provides for obtaining from

participating publishers the rights to produce books under our supervision by a suitable central printing plant, thus ensuring rapid, high production and timely shipping to schools. This measure will have the added effect of lowering production costs and thus indirectly contributing to higher sales by passing on even greater savings to students.

Table I shows sales history to date. It is important to note that receipts for only about 30-35% of annual sales are received in the first half of the year.

Table II indicates sales projections for the next three years, while Table V projects the amount of capital required during each quarter to ensure full program operation. The anticipation of rapid increase of sales during the balance of 1974 reflects the fact that most sales are reported to the Organization late in the year. Part of the equally rapid rise during 1975 is due to the fact that more titles will be available, and that others, available during only part of 1974, will be available during the entire year. For future years, reasonable increases in market size and the Program's share thereof are reflected. The purchases indicated in Table V are those which would allow maintenance of reasonable inventory levels and the projected sales.

The key figures are in the net capital requirements column for each quarter. These represent the total amount of capital needed to keep the Program operating, given the sales and purchase levels projected. They indicate that the current revolving fund capital of \$2 million will be insufficient to finance the necessary purchases as early as the first quarter of 1975. Since books must be purchased in the first and third quarters of each year in order to ensure delivery to the schools at the beginning of the next semester, we anticipate a cash flow bind at these times for succeeding years also. The growth in market size and share in 1976 and 1977 will further exacerbate the problem, as the respective capital requirement figures point out. In summary, a net capital requirement of \$2.2 million is anticipated for 1975, with requirements of \$2.7 million for 1976 and \$3.4 million for 1977. These figures assume a total for increased market growth and market share of about 20% per year, an inflation factor of 15%, and the addition of several new titles to the Program.

It should also be noted that the figures referred to above assume the benefits of lower production costs and greatly reduced delivery times that the new system of purchase of rights rather than books entails. If for some reason, the Organization should be forced to resume purchase of finished books from publishers, prices would increase, and a substantial additional capital requirement would arise. This effect would not become apparent immediately since under the book purchase system only 40% of the total price is due upon signing a contract. Thus, for the last quarter of 1974 and the first quarter of 1975, about \$200,000 less would be required in net capital than under the new system. However, no books would be delivered during this time, and this would result in a serious loss of sales during the period, with corresponding loss of revenues. By the time delivery and final 60%

payment become due in the second quarter of 1975, a capital requirement of \$2.3 million would be needed, increasing to \$3.1 million by the third quarter. Under the new system, on the other hand, 1975 capital requirements would not exceed about \$2.2 million.

The differences become even more pronounced in succeeding years. In 1976 the maximum requirement under the new system is \$2.6 million, as compared with \$4.1 million if finished books are purchased instead of rights. By 1977 the respective figures are \$3.3 million and \$5.2 million. The differences are attributable to lower production costs and faster turnover under the new system.

#### Nursing Textbook Program

As mentioned in the introduction, the XVII Pan American Sanitary Conference recognized the value of extending the Textbook Program to other health professions. Accordingly, the Nursing Textbook Program was started in 1972, using funds derived from the sale of medical textbooks during the pilot program.

Although the process of promoting this Program and obtaining letter-agreements from eligible schools has been going on for nearly two years, the actual sales history of the available books is much shorter, making it difficult to make projections and draw conclusions as to the Program's real potential. To date, four books have been selected for sale through the Program, but only two have actually been shipped to the schools. "Enfermería Medicoquirúrgica" by Smith has been available at a limited number of schools for about nine months, while the second text, "Enfermería Pediátrica" by Jeans, has been at an even smaller number of schools for only four months. Two new books, "Enfermería Práctica" by Kozier and "Principios Científicos Aplicados a la Enfermería" have just been printed for the Organization, but have not yet reached the schools.

The Program is expected to grow considerably over the next year, as additional schools sign agreements and as more schools already in the Program appoint local administrators and begin to submit orders. To date, slightly more than half the eligible schools have signed agreements (see Table VI), and the majority of these have appointed administrators. Slightly fewer than half have ordered textbooks.

Anticipating future sales and inventory levels for this Program is far more difficult than in the case of Medicine. Accurate data on the size of student enrollments is not easy to obtain, and the course of studies varies far more widely from school to school. The total number of nursing students is estimated to be somewhere in the neighborhood of 30,000, but the portion of these students who would use a given text in a given year is unknown. In the case of the one text where a significant sale history is available, receipts for 776 books have been received during the first half of 1974. If experience with the Medical Textbook Program is any indicator,



this would imply sales of about 2,200 books for the first year of operation. On the other hand, on the basis of orders received, projected sales of about 3,500 to 4,000 books per year could be anticipated, a not unlikely figure considering that the Program is really still just getting started.

Table VII indicates approximate capital requirements for the Program as new books are added. Given the assumptions of a steadily growing market and market share, with an estimated sales growth of 20% per year, an inflation factor of 15%, and the addition of several new titles, it is anticipated that the net capital requirements will be in the neighborhood of \$200,000 for 1975, \$280,000 for 1976, and \$400,000 for 1977.

#### Program to Provide Basic Diagnostic Equipment for Medical Students

The Organization introduced this program in July 1973, on the basis of Resolution XV adopted at the XVII Pan American Sanitary Conference, and of the experience acquired with the Medical Textbook Program and requests from countries. The purpose of the program is over a period to enable medical students in Latin America to purchase at cost price the basic diagnostic equipment they need for their training and work in hospitals, centers, urban and/or rural health posts, and at home. As a result of the scheme, the commercial price of the equipment has been reduced by 50 to 60 per cent.

After consulting the associations of faculties of medicine, the faculties themselves, hospitals and health centers, PAHO/WHO defined basic diagnostic equipment as covering the following:

- a) Stethoscopes and tensiometers for students at the clinical studies stage; and
- b) Stethoscopes, tensiometers and oto-ophthalmoscopes for students at the internship rotation and social service stages.

To implement the scheme, in accordance with the interests of the countries, the requests submitted, the cost of the equipment, and sources of financing, it was decided to cover the Region in successive stages: the first, exploratory in character, from January 1973 to December 1974; the second, January to December 1975; the third, January to December 1976; and the fourth, January to December 1977.

During the first stage, January 1973 to September 1974, based on interinstitutional cooperation between the ministries of health, the universities and the Pan American Health Organization, an initial fund was set up enabling the program to be started in nine countries, with local management organized through a national administrator, the procedure being roughly the same as for the Medical Textbook Program. Table VIII summarizes the present status of the program, covering the first stage.

On the basis of the contacts established with national authorities, the following countries are scheduled to take part in the second stage in 1975:

- Brazil
- El Salvador
- Jamaica
- Haiti
- Guatemala

For the third stage, in 1976, the program is scheduled to cover:

- Uruguay
- Colombia
- Surinam
- Dominican Republic
- Paraguay

And for the fourth stage, in 1977:

- Argentina
- Mexico

Table IX summarizes the program projections by stages, equipment needs and cost, including an additional 10 per cent to cover rising prices.

#### Summary

The objectives set by the XVII Pan American Sanitary Conference in 1966 to improve the training of future physicians and other health professionals have proven feasible. Their fulfillment now depends on the availability of capital. If the Conference, after study of the progress reported in this document, reconfirms its approval of the Program, it may wish to express its support for obtaining the needed capital. More specifically, the Conference may wish to:

- (a) Instruct the Director to negotiate with the Inter-American Development Bank or other organizations or agencies to obtain additional loan capital for the Program, either directly or through the Pan American Health and Education Foundation (PAHEF).
- (b) Authorize and instruct the Executive Committee to approve such loans as may be negotiated, provided they are satisfied that the terms are the best available; and to take such measures as may be required to provide guarantees by PAHO of the repayment of such loans.

TABLE I

SALES HISTORY BY TITLE - MEDICINE

<u>Title</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u> *
						(1st semester)
Anatomía - Gardner	-	-	-	1,014	2,133	1,854
Bioquímica - Laguna	4,129	3,510	3,920	4,676	3,245	1,168
Bioquímica - Harper	-	-	-	-	-	-
Embriología - Langman (Span.)	-	-	-	1,243	2,324	1,657
Embriología - Langman (Port.)	-	-	-	661	792	328
Farmacología - Kuschinsky	27	5,603	2,750	3,573	4,256	2,442
Fisiología - Houssay	1,230	3,901	2,482	2,660	3,008	2,130
Fisiología - Ganong	-	-	-	-	-	-
Ginecología - Novak	-	-	-	-	2,172	2,209
Histología - Ham	-	-	-	778	4,710	1,706
Medicina Interna - Cecil-Loeb	-	-	-	3,574	5,479	3,060
Medicina Interna - Harrison	-	-	-	-	-	-
Microbiología - Jawetz	-	-	-	1,930	3,525	1,508
Obstetricia - Williams (Span.)	-	-	-	-	-	1,969
Obstetricia - Rezende (Port.)	-	-	-	-	1,694	838
Parasitología - Craig & Faust	-	-	-	-	-	12
Patología - Robbins	4,540	4,670	5,935	4,005	5,387	2,823
Patología - Pelayo Correa	-	-	-	-	-	-
Patol. Quirúrgica - Sabiston	-	-	-	-	-	97
Pediatría - Nelson	-	-	4,695	4,575	5,181	3,127
Compendio de la Enseñanza Integ. de Med. - Passmore	-	-	-	-	-	-
Psiquiatría**	-	-	-	-	-	-
Total	9,926	17,684	19,782	28,689	43,906	26,928

\* About 35% of anticipated 1974 sales.

\*\*The exact book to be purchased is unknown.

TABLE II

SALES PROJECTION BY TITLE\* - MEDICINE

<u>Title</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Anatomía	7,496	10,000	11,000	13,000
Bioquímica - Laguna	5,837	5,000	6,000	7,000
Bioquímica - Harper	-	7,000	8,000	10,000
Embriología - Langman (Span.)	4,734	8,000	10,000	11,000
Embriología - Langman (Port.)	937	1,200	1,400	1,600
Farmacología - Kuschinsky	6,978	10,000	11,000	13,000
Fisiología - Houssay	8,084	6,000	7,000	8,000
Fisiología - Ganong	-	8,000	10,000	11,000
Ginecología - Novak	6,312	10,000	11,000	13,000
Histología - Ham	4,874	10,000	11,000	13,000
Medicina Interna - Cecil-Loeb	8,742	12,000	14,000	16,000
Medicina Interna - Harrison	-	6,000	7,000	8,000
Microbiología - Jawetz	7,361	8,000	10,000	11,000
Obstetricia - Williams (Span.)	5,625	10,000	11,000	13,000
Obstetricia - Rezende (Port.)	2,344	3,500	4,000	5,000
Parasitología - Craig & Faust	4,000	10,000	11,000	13,000
Patología - Robbins	8,044	12,000	14,000	16,000
Patología - Pelayo Correa	650	6,000	7,000	8,000
Patología Quirúrgica - Sabiston	4,650	10,000	11,000	13,000
Pediatría - Nelson	8,935	11,000	13,000	14,000
Compendio de la Enseñanza Inte- grada de Medicina - Passmore	-	5,000	6,000	7,000
Psiquiatría**	-	5,000	6,000	7,000
<b>Total</b>	<b>95,603</b>	<b>173,700</b>	<b>200,400</b>	<b>231,600</b>

\* Does not include figures for preventive medicine and clinical specialties.

\*\* The exact book to be purchased is unknown.

TABLE III

TITLES AVAILABLE AND SUBJECTS COVERED - MEDICINE

	<u>Titles available</u>	<u>Subjects covered</u>
1969	4	4
1970	4	4
1971	5	5
1972	10	10
1973	12	12
1974	17	14
1975	21	16
1976	27	22

TABLE IV

NUMBER OF MEDICAL SCHOOLS ACTIVELY PARTICIPATING IN PROGRAM

<u>Country</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u> 1st (semester)
Bolivia	2	2	2	2	3	3
Brazil	22	50	61	60	64	62
Chile	5	5	5	5	3	4
Colombia	8	8	9	9	9	9
Costa Rica	1	1	1	1	1	1
Dominican Republic	-	1	1	1	2	2
Ecuador	3	3	3	4	5	3
El Salvador	1	1	1	1	1	1
Guatemala	1	1	1	1	1	1
Honduras	1	1	1	1	1	1
Mexico	4	7	6	7	8	8
Nicaragua	1	1	1	1	1	1
Panama	-	1	1	1	1	1
Paraguay	1	-	1	-	1	-
Peru	3	4	4	4	4	5
Uruguay	1	1	-	-	1	1
Venezuela	6	6	6	7	6	6
<b>Total Faculties:</b>	<u>60</u>	<u>93</u>	<u>104</u>	<u>105</u>	<u>112</u>	<u>109</u>









TABLE VIII

SUMMARY OF THE PRESENT STATUS OF THE PROGRAM "PROVISION OF  
BASIC EQUIPMENT FOR MEDICAL STUDENTS" - 1 August 1974

## Stage I

Country	PAHO/Country agreement	No. of faculties incorporated	Equipment requested and potential market (PM)			Financing		Total
			Stethoscopes	Tensiometers	Oto-ophthalmoscopes	PAHO/Country	National	
1) Ecuador	6210	5 (third year students until social service) PM I-V-74 - 30-VIII-75	1,283 (1)	770 (1)	485 (1)	\$12,445.00	\$12,511.00	\$24,956.00
2) Peru	6101	6 (internships and social service students) PM VI-74 - VI-75	300 310	300 310	200 310	15,000.00	---	15,000.00
3) Costa Rica	6200	1 (third year students until internship) PM VI-74 - VI-75	156 250	156 250	156 149	3,800.00	3,800.00	7,600.00
4) Nicaragua	6200	1 (third year students until internship) PM VI-74 - VI-75	158 200	158 200	50 70	4,000.00	---	4,000.00
5) Chile	6200	2 (third to seventh year students) PM VI-74 - VI-75	332 350	332 350	200 200	10,000.00	4,000.00	14,000.00
6) Honduras	6200	1 (fourth to seventh year students) PM first-year program	150 170	150 170	80 105	3,000.00	3,000.00	6,000.00
7) Panama	6200	1 (third to sixth year students) PM first-year program	79 200	79 200	50 95	2,500.00	2,500.00	5,000.00
8) Venezuela	6210	6 (third to six year students) PM first-year program	540 2,890	540 2,890	100 870	12,000.00	36,000.00	48,000.00
Totals 8 Countries		23 Faculties	2,998 PM 6,680	2,465 PM 6,230	1,321 PM 2,329	\$62,745.00	\$61,811.00	\$125,556.00

Explanations: (I) PM = Potential market, i.e., number of purchasers anticipated.  
(II) Additional requests will be made for Panama and Venezuela when the "National" contributions for these countries have been received.

TABLE IX

SUMMARY OF THE PROGRAM PROJECTIONS BY STAGES, COUNTRIES,  
STUDENT NUMBERS, EQUIPMENT NEEDS, AND FINANCING, 1975-1977

Stage	Country	Number of students	Demand for equipment	Cost**
II Stage 1975	Brazil	21,475	10,000	500,000
	El Salvador	1,328	650	32,500
	Jamaica	304	150	7,500
	Haiti	324	160	8,000
	Guatemala	1,050	500	25,000
III Stage 1976	Uruguay	1,870	900	49,500
	Colombia	2,470	1,200	66,000
	Surinam	50	30	1,650
	Dominican Republic	2,700	1,300	71,500
	Paraguay	220	110	6,050
IV Stage 1977	Argentina	13,000	6,500	393,250
	Mexico	23,000	11,000	665,500
		<u>67,791</u>	<u>32,500</u>	<u>1,826,450</u>

\*Demand for equipment: approximate number of stethoscopes, tensiometers and oto-ophthalmoscopes, 50%

\*\*Cost of equipment: stethoscopes, tensiometers, oto-ophthalmoscopes -  
1975 = USA\$50.00  
1976 = USA\$55.00  
1977 = USA\$60.50