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PATIENTS AND DISEASE IN AN ENLIGHTENMENT HOSPITAL:

SAN JUAN DE DIOS IN GUATEMALA CITY, 1788-1808

Lynda deForest Craig

Thesis presented to the School of Graduate Studies and
Research, University of Ottawa, in partial fulfillment of
the requirements for the degree of Master of Arts,
Department of History.

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Introduction

In recent years social, rather than institutional, concerns have guided the study of colonial Spanish America. Nonetheless, the new historiography has failed to explore all facets of social experience. Despite the fact that a society's well-being is often reflected in the health of its population, the medical history of the colonial period, for the most part, remains to be written. More importantly, the few available works on medical themes are inadequate for social historians as they do not address their interests.

This relative lack of social focus is particularly true for hospital studies but the difficulties in this case are not limited to the Latin American field. The same problems arise in European-oriented medical histories. The most important facility for the care of the sick, then as now, was the hospital. Until recently, however, the history of medicine has focused on the progress of institutions and their doctors. Studies of patients have been in short supply. And yet, as tending the sick is a principal concern of medicine, it seems natural that medical historians should turn their attention to the patient.

Writing patient-oriented histories has not been easy. The dearth of primary material on patients has created problems for those social historians who venture into the field, challenging them to use new approaches in seeking out and describing those who suffered. At first, faced with poor or non-existent patient dossiers from hospitals and doctors' records, historians turned to the writings of the educated upper and middle classes to discover what it was like to be sick. Few documents exist from the poor, however, for they did not keep diaries. And yet, the lower classes could not be ignored as hospitals catered almost exclusively to poor and common people until the end of the nineteenth century. This has prompted some historians to search for whatever remained of hospital patient records to describe the experiences of the institutionalized sick poor.

Notwithstanding the difficulties posed by this approach, the historiography of patients has grown since the mid-1970s and has tended to revise the standard yet controversial view that Old Regime hospitals were 'havens of last resort' and 'gateways to death'.¹ The classic expression of this is found in writings about the horrifying conditions in Paris's Hôtel-Dieu hospital in pre-Revolutionary France and has been perpetuated by authors like Michel Foucault (1975) who wrote "the [Old Regime] hospital creates disease by means of the enclosed pestilential domain that it constitutes."² Earlier, Thomas McKeown (1955), critical of the state of British hospitals in this era, argued that "... the chief

indictment of hospital work at this period is not that it did no good, but that it positively did harm."³

Some have accepted this interpretation and have accordingly turned their attention to the work of those trying to reform the Parisian health care system in the late eighteenth century. Louis S. Greenbaum, for example, has concentrated on the activities of hospital reformer Jacques Tenon and scientist Antoine Lavoisier who along with Du Pont, Condorcet, Vicq d'Azyr and Cabanis were proposing alternative systems of providing medical care for the country's poor and needy in the latter part of the century.⁴ Others, like Toby Gelfand and Michael Burke, have written about those surgeons who sought to upgrade their status within their profession and to revise medical school curricula to include clinical surgical experience.⁵ As a result of these efforts, surgical colleges which mirrored those in Leyden (1714) and Vienna (1754) were established under royal auspices in Paris and Cadiz in 1774.⁶ Surgical students received their clinical instruction at facilities associated with the colleges. The most notable of these was the Hospice of the Paris College of Surgery which "received patients whose ailments were comparable with the most formidable problems treated in the major hospitals."⁷ The hospice provided enlightened surgeons with an continuous institutional supply of patients and, as such, made it easier for them to gain clinical expertise.

In the last decade, revisionists have tended to incorporate details about patients and their hospital experiences into arguments which refute the traditional view. In his study of the British voluntary hospital movement, To Do the Sick No Harm (1974), John Woodward used hospital statistics about patients to stress the positive aspects of these institutions and to accentuate the fact that they provided genuine medical care.⁸ Arthur Imhof (1977) went one step further and used a sophisticated quantitative approach to analyze the dossiers of patients hospitalized in Berlin, Copenhagen and Kongsberg (Norway).⁹ He was one of the first to demonstrate the value of these records both in describing who came to hospital in the eighteenth century and in depicting changes in social attitudes towards institutional care. Parenthetically, Imhof also concluded, that mortality rates in this case were poor tests of the 'gateway to death' thesis. In comparing deaths in his Berlin hospital to those of an urban parish he found that they were the same and, therefore, suggested that hospitalization did not necessarily influence the overall mortality pattern.¹⁰

Sources other than patient dossiers are also available to the historian researching the experience of the sufferer. Michael McDonald in his Mystical Bedlam ... (1981), used the private casebook of Dr. Richard Napier to study the mentally disturbed in seventeenth-century England.¹¹ Since the publication of McDonald's

work, more emphasis has been placed on writing medical history from the patient's point of view.¹² In the past year, in fact, Roy Porter has edited an anthology which examines illness in pre-industrial society from the sufferer's perspective.¹³ Lastly, Guenter Risse's recent monograph focuses on the experiences of the sick poor in Edinburgh's Royal Infirmary.¹⁴ Risse's use of William Cullen's nosology is an innovative solution to the long-standing problem of classifying eighteenth century diseases and, as such, his work represents a watershed in patient-oriented histories. In following the patient from his admission, through treatment (be it medical or surgical), to discharge, Risse uses sources similar to all those described above to give us the most comprehensive picture to date of the experiences of those who entered an eighteenth-century hospital.

Patients in the Americas have not received as much attention as those in Europe. Some studies dealing with patients in pre-Confederation Canada have been published.¹⁵ Notably, François Rousseau, in his work on the sick in seventeenth and eighteenth century New France, examined diseases and ages of mortality of hospital patients to show that the population of Quebec City did not seem to regard institutionalization as posing an elevated risk to its health. He was also able to compare death rates in the colony to those in the Mother Country.¹⁶

As for Latin America, only colonial Mexico has been studied. Bradley Lewis Chase's dissertation makes use of patient information although the sporadic nature of his documentation forced him to compare care in four independent institutions in Mexico City in two different decades.¹⁷ Lastly, although recent slavery studies have discussed the diseases suffered by slaves in the New World, they deal more with those in the West Indies and U.S. than in Spanish America.¹⁸

The medical history of Latin America was cultivated for many years by John Tate Lanning who did pioneering studies on the regulation and practice of the medical profession in the Spanish Empire. Following his death in 1976, the final assembly and editing of his most valuable study of the Royal Protomedicato was left to a former student, John Jay TePaske, who published it in 1985.¹⁹ Donald Cooper's monograph on epidemic disease, namely smallpox, in Mexico City in the last half of the eighteenth century provided the impetus for many studies by historical geographers interested in both epidemiology and Latin America.²⁰ The seminal work on hospitals in New Spain (Mexico) was written by Josefina Muriel. Her two volume monograph, Hospitales de Nueva España (1960), is strictly institutional in nature and outlines in detail the management of all aspects of these hospitals in the colonial period.²¹ Also, two other studies on Mexico in this era done by David Howard and Cheryl Martin have produced institutional accounts of hospitals and hospitaler orders.²²

The history of medical care in other regions of the Spanish empire has been neglected and further study is required to reveal a more precise picture of the general health of the population in the late colonial years. In the case of Guatemala, nothing has been written on hospital patients in the eighteenth century. Some epidemiological studies on the devastating effects of smallpox and typhus on the Amerindian population in the late eighteenth century do exist but nothing as yet has been written on the hospitalized sick.²³

This thesis is an attempt to redress in part this deficiency in the Latin American and Guatemalan historical literature and to situate the resulting study within the main trends in the social history of medicine. As regards the former, it seeks to place the hospital experience within a distinctively Guatemalan context. Thus, this study addresses such aspects as the race and national origin of patients, elements of little concern in the European-oriented studies.

Yet, while it may be cogent to relate patients to the society in which they lived, their experience must also be understood in terms of the questions presently being posed by medical historians. Like the studies already mentioned, this thesis strives to demonstrate that social attitudes towards hospitalization were changing in the eighteenth century, that both

the purveyors and potential recipients of hospital services expected that these institutions would now emphasize secular medical care for the sick over providing spiritual succour.

Any attempt to document this change must of necessity include an examination of both the numbers of people entering hospital and the social diversity of the patients. I used figures for 1792 to 1796 published in the Gazeta de Guatemala to give me some understanding of how many individuals went to hospital and, later, to verify my sample patient population. Reliance upon these published hospital statistics, however, was not enough. It was only by determining who the individual patients were, thereby responding to Arthur Imhof's implicit challenge, that I could gauge the social origins of the hospital population. Indeed, as these are an excellent indicator of a society's attitude toward hospitalization, examining the institution's admissions books is an essential research procedure.

The purpose of this work is to focus on institutional care and the development of medicine and to provide hitherto unavailable information on the characteristics of the patient population. While Rousseau's work provided me with a basis for comparison, ie. another North American hospital but in the temperate zone, it was not particularly helpful in other respects. In looking at what people were suffering from, for example, his rudimentary lists of reasons given for hospital admissions were

neither as relevant or useful as the more sophisticated disease classification developed by Risse. It enabled me to gain a much clearer picture of what both doctors and patients encountered. Lastly, since the accent is placed on providing medical care to the ill, it is important to discuss the nature of the attending physicians and surgeons and their success at increasing the supply of hospital facilities available to the public. While my sources and discussion are not as extensive as those recent histories of the medical profession, such as Michael Burke's on surgeons in Spain, it is still possible for me to outline the desires and activities of Guatemalan medical personnel.

Yet, such an outline cannot be presented in a historiographical vacuum. The traditional view which has depicted eighteenth century hospitals as 'gateways to death' and 'havens of last resort' must be addressed. There are several ways for the historian to test this premise. One might, for example, attempt to demonstrate the point by showing that life expectancy of the sick was improved significantly with hospitalization. Thus, if the death rates for patients with specific diseases were lower than for individuals outside hospital, then one could, perhaps, conclude that these institutions were not gateways to death. Such a merely statistical "proof", however, is not only impossible in the case at hand (because of the deficiencies of the documentation), it would also produce profoundly misleading results for any case to which it might be applied.²⁴

Death rates tell us all too little about the care received in hospital. The probability of survival for any patient has much to do with the stage at which he is admitted and with the progress of his illness while hospitalized. Such elements are difficult to quantify. Similarly, the role assigned to hospitals within the overall health care system is important. If lying-in facilities, geriatric care or extended care are provided, or if the hospital is a clinical teaching institution such circumstances might well have to be considered in any evaluation of the significance of death rates. Lastly, hospital death rates are related to the progress of medicine. Scientific advances in surgery and diagnostics allow physicians and surgeons to attempt procedures on patients who previously might not have entered hospital. In this instance, increasing death rates would not necessarily indicate the hospital's failure to supply medical care but the contrary.²⁵

In short, if one wishes to establish that eighteenth century hospitals were not "gateways to death" it is not to mortality that one must look. Rather, the accent must be placed on the will to supply medical care and to make that the focus of all activity. Providing such care rather than performing charitable functions like relieving suffering or easing passage into the next life distinguish modern hospitals from older christian institutions. Yet, is the existence of this "will to provide medical care" merely to be assumed from enlightenment inspired reform projects

or from undoubted advances in eighteenth century medical education? Important as such indices are, they must be supplemented with practical evidence that hospitals shared in the new values. Here patient records, increasing admission rates and widespread use of the hospital lend suggestive evidence.

As hospital admissions were not static in Guatemala City, another major issue to be resolved is the reason for changes in the access to care. The first is that the demand for health care increased over time, perhaps due to demographic change, epidemics, altered expectations or other conditions. The second possibility is that there was an increased supply of facilities, that Guatemalan medical men and the Enlightened elites, who desired to bring about reform, perceived this to be progressive, and in doing so encouraged or compelled the sick to frequent hospital.

Still the dimensions of this project are limited. While public demand for care will not be neglected, it cannot be dealt with extensively because sources on the social and demographic characteristics of the city's population are entirely inadequate. There is no literature which addresses in specific terms the problem of living conditions in Guatemala even though as much as possible was gleaned from Inge Langenberg's demographic account of the capital city in this time period.²⁶ Thus, an examination of how representative those cared for in hospital were of the citizens as a whole is not possible. What is clear is that the

society accepted the elite's sponsorship of increased facilities and that they availed themselves of the most progressive medical care. Yet even though more people come to hospital in the later years of this study, this phenomenon seems secondary to the available facilities.

The changes which are documented herein are driven by governmental and elite desires. The Enlightened citizens and medical personnel in the capital were deeply interested in the reform of medical education and, as is shown in Chapter I, sought to extend its impact into the hospital. The elite who supported and later administered this institution expected that it would provide real services to the sick. To this end they cooperated with the Crown in its endeavours to alter the focus of hospital work from Christian piety to medical care.²⁷ Thus, pressure from the enlightened sector of the population clearly was responsible for making the Hospital de San Juan de Dios the most important health care facility in the kingdom. It was, in essence, an expression of enlightenment reform. Somewhat like the hospice to the Paris College of Surgery, the clinical ward for surgical teaching in the hospital provided an institutional supply of patients for the surgeons-in-training. The admissions registers are the empirical proof of what was taking place.

I shall use the patient registers of the Hospital de San Juan de Dios of Guatemala City to show that this emphasis on care was

more than academic and that the elite did not see the institution as one which performed simply custodial or social control functions. The characteristics of the patient population (age of patient, gender and marital status, race and legal status) described in the second chapter demonstrate that the hospital welcomed within its walls individuals from all social categories. It is only through these patient registers that one can begin to reconstruct the social characteristics of the patient population. Also, since it is unlikely that those with relatively high status, would have entered into such an institution simply to die, their presence in appreciable numbers militates against the view that this hospital was a haven of last resort.

Even more significantly, the medical information contained in the patient registers (particularly reason for admission and type of care), when supplemented by other indicators, testifies as to the depth of commitment of enlightened physicians and surgeons to providing the most progressive medical care available at the time. The "translation" of eighteenth century diseases typically based on symptomatic manifestations into terms understandable today posed a serious problem.²⁸ While the French historian, Jean-Pierre Peter has developed a methodology from which medical historians might work, he admits his model is a "function of the material at hand."²⁹ So many important clinical changes have occurred since the eighteenth century, however, that the retrospective translation advocated by Peter seemed unwise. With

that in mind, I chose to make extensive use of the scheme followed by Guenter B. Risse in his latest work on patients in Edinburgh's Royal Infirmary in Enlightenment Scotland. Risse explains that:

... [the] general scheme retained the eighteenth-century nosological terminology but redistributed disease entities according to their presumed contemporary nature and affected body systems. . . . Although far from perfect, the arrangement avoids doing violence to eighteenth-century names, explanations and meanings. In fact, each disease category was defined on the basis of Cullen's nosology [which was also available to, Guatemalan doctors], the guide routinely used by [Infirmary] practitioners in diagnosis and treatment.³⁰

The more exact descriptions of reasons for admission and the steady increase in proportion of surgical cases outlined in Chapter III clearly indicate the medical advances being made in the era under discussion, the years between 1788 and 1808.

These chronological limits were a matter of choice. They were not imposed by the documentation. Prior to being moved to the present capital the hospital was long established in another town now called Antigua, and the documentary series used for this study goes back to that earlier period. Similarly, it continues onward, well beyond Charles IV's reign. Practical considerations, relating

to available time and funds, however, compelled me to limit my attention to a comparatively narrow period, one characterized by a relative unity of political intent.³¹

The years of the reign of Charles IV were selected because of the homogeneity of purpose which characterized them. The time period was one in which the reforms started by the King's father, Charles III, came to fruition -- at least, in the area of health care. There was a more rational approach to medical education and public health problems in general, and to the maintenance of hospital institutions in the American colonies in particular. Lastly, as regards Guatemala, whose old administrative seat had recently been destroyed, these closing years of the colonial period were a time marked out for a new start. The relocated capital had novel needs which the hospital of San Juan de Dios would have to meet.

The account which follows is based upon a variety of primary and secondary materials, with the former drawn from the archives of both Spain and Guatemala. Use of the hospital studies mentioned previously allowed for some comparisons between those hospitalized in Guatemala and patients in other late eighteenth century hospitals. Nonetheless, pride of place undoubtedly belongs to a single homogeneous source: the admissions books (and related lists) of the hospital of San Juan de Dios in Guatemala City for the period between 1788 and 1808.

The admissions books used in this study are rather similar to records which are kept by hospitals today.³² Incoming patients were identified in terms which made sense to society and hospital, and a preliminary description or diagnosis of the complaint which brought them to the institution was duly noted. Further, these same books were also used to record some aspects of the patient's hospital experience, including bed assignment, type of care, length of stay, and death while under care -- if such were his fate. In the latter case, a cross accompanied by the date of death was placed in the space normally reserved for the discharge date. Of course, these records were drawn up by the administrators of the hospital and as such they reflect the people who were admitted. The registers were primarily a distillation of what existed outside the hospital and were not necessarily representative of all sickness suffered by the city population.

For late eighteenth and early nineteenth century Guatemala, identifying the patient meant writing down the name, gender, race, age, marital status, parents and spouse, and place of origin or residence, and the person who brought the patient to hospital. Unfortunately, not all of this information was invariably provided, and even if it was it might well be unreadable. Nonetheless, the documentation is complete. In addition, where appropriate, social quality (ascribed reputation, generally expressed through racial categorization, or the use of such

honorific titles as don) and legal status (such as being a slave, prisoner, or a member of a juridically privileged body like the church or the military) were also indicated.³³ As to the ethnic classification, it is generally recognized as a good indicator of social position in colonial Latin America. Lastly, illegitimate birth can occasionally be established.

Much of the information was put down as it was reported by the patient or his sponsor at admission, just as it is today. In other instances, as in the case of race, the perception of the admitting officer may well have played an important role. The area which seemed most problematical is that of the reason for admission. At times, this is no more than a description of the symptoms reported by the patient. On other occasions a preliminary diagnosis is recorded, indicating that some level of examination did, indeed, take place at the time of admission. In any event, there is nothing remarkable in such discrepancy, modern hospitals too will admit patients whose pain is obvious even if the nature of their ailment(s) is not.

The admissions books were used in two different ways: the number of entries was counted and their content was sampled. The counting was a relatively straightforward matter as each entry is clearly separated from the others. A total of 40,065 civilian patients were counted in this fashion. Because of the internal organization of the books, however, this procedure yielded more

details than the mere number of patients for the whole period. Indeed, totals by gender, by year and by month were generated without great difficulty. For some years, it was possible to count individuals receiving certain types of care. As in any hand-counting enterprise, some measure of error has to be expected. Nonetheless, checks and selected repetition were done to minimize errors.

The sampling was done in a much more elaborate fashion. Because of the large numbers involved and given the time constraints, total retrieval of the data was impossible. In consequence, I resolved to obtain a random sample of something over five percent of the total, a figure which seemed more than adequate statistically. Quite a number of pages of the documentation were illegible and had to be discounted. As this reduced the effective rate of sampling, I doubled the nominal rate to ten percent. In fact, the actual sample, 3121 cases, is about seven percent of total admissions, and is accurate to 2%, 95% of the time.

The actual research procedure was highly mechanized. The admissions books were read directly from the film copies obtained from McMaster University, using a microfilm reader. Sampling was done starting at the first entry of each reel, using a twenty-sided Dungeons & Dragons die. If the count fell on an illegible item, the whole page was ignored and the count resumed

from the top of the next readable page. Each entry was recorded in machine-readable format using data entry software running on a microcomputer. The data entry screen used had to be specially designed for this particular application, using the software's internal facilities. As the actual admissions books were strictly sequential, and began anew every year, problems arose in some instances of hospital deaths and in the case of individual patients who were carried over into a new year. Fortunately, there exist separate lists of the deceased, and carryovers were always reported at the start of each calendar year. The data base was amended with this additional information. After the entry of data was complete, a listing was produced on diskette through the built-in report writing facility. This listing was subsequently edited, uploaded to the University of Ottawa mainframe computer, and analyzed using SPSS.³⁴

Only the coding of the reasons for admission for SPSS analysis proved troublesome. Where ailments did not easily lend themselves to re-classification, they were arbitrarily assigned to a particular category. Also, some of the descriptions included more than one complaint. In those instances, the first in the list was taken to be the one primarily responsible for the patient's hospitalization and the complaint was re-classified accordingly.

In some cases it was difficult to obtain meaningful analyses. A crosstabulation for each disease category was done using racial

groups and marital status, with gender as the control.

Unfortunately, it produced a grid with too few cases in many of the cells to be of any use on its own.³⁵ The results of these more complicated statistical tests were presented in Table 16 to indicate why no further analysis was attempted.

To the degree possible, I have sought to introduce a more personal dimension to this myriad of numbers. Longer entries from the patient registers themselves provide interesting reading. The hospital libros show times could certainly be difficult for those sick enough to be hospitalized and some personal information was gleaned directly from this source. Yet the registers provide only minimal details of circumstances about which one wishes to know more. Other stories come to light if one examines the burial records for the hospital grounds. This poses a problem, however, in that the names in the burial registers then have to be matched with those in the libros de enfermos of the particular year in question, a frustrating task if records in either place prove, for whatever reason, to be unreadable. Dr. Esparragosa's case notes in his Diario de las observaciones por los años 1801 y 1802 (see AGCA, leg. 1865, exp. 12182), for example, were in this category.³⁶

Still none of these procedures imposed significant limitations on the worth of the work. The sample is large enough so that assertions made about the sample of patients are highly

likely to also be true about the hospital population in general. In addition, the documentary base and standard procedures of analysis permit the extension of this work by others and comparison with similar studies.

Lastly, certain technical difficulties should be mentioned. The nature of the documentation slowed research and imposed certain restrictions. Eighteenth century Spanish language and paleography are not particularly difficult, but a certain amount of self-training largely overcame this problem. The greatest problem was with legibility. Although the AGCA is one of the better preserved colonial archives in Latin America, Guatemala's tropical climate has damaged the documentation, which shows traces of the work of water and insects. Similarly the age of the recording media has had an impact. In some instances, the writing has faded, in others overly acidic ink has partially eaten through the paper, so that the words recorded on one side of a sheet show through on the other. This leaching problem was accentuated in the microfilming process. In addition, the staff which did the work was clearly inexpert -- documents which seem otherwise perfectly legible were filmed out of focus. Reading this material was not a straightforward task.

NOTES

1. Roy Porter, "The Patient's View: Doing History from Below," Theory and Society, 14 (1985), pp. 175-198. Guenter Risse, as recently as 1986, commented on the 'gateway to death' perception as being the standard contemporary judgment. See his Hospital life in Enlightenment Scotland: Care and teaching at the Royal Infirmary of Edinburgh (Cambridge, 1986), p. 4.

2. Quoted from Michel Foucault, The Birth of the Clinic, trans. A.M. Sheridan Smith, (New York, 1975), p. 18 in Risse, Hospital life, p. 386.

3. Quoted from T. McKeown and R.G. Brown, "Medical evidence related to English population changes in the eighteenth century," Population Studies, 9(1955-1956), p. 125 in Risse, p. 386.

4. See Louis S. Greenbaum, "'Measure of Civilization.' The Hospital Thought of Jacques Tenon on the Eve of the French Revolution," Bulletin of the History of Medicine, 44 (1975), pp. 43-56.

5. For information on Parisian medical reform, see Toby Gelfand, Professionalizing Modern Medicine: Paris Surgeons and Medical Science and Institutions in the Eighteenth Century (Westport,

Connecticut, 1980).

6. For France, consult Toby Gelfand's book and for Spain, see Michael Burke, The Royal College of San Carlos: Surgery and Spanish Medical Reform in the Late Eighteenth Century (Durham, 1977).

7. Toby Gelfand, "The Hospice of the Paris College of Surgery (1774-1793) 'A Unique and Invaluable Institution'," Bulletin of the History of Medicine, 47 (July-August, 1973), p. 380.

8. John Woodward, To Do the Sick No Harm, (London, 1974).

9. Arthur Imhof, "The Hospital in the 18th Century: For Whom?," Journal of Social History, 10:4 (June 1977), pp. 448-470.

10. Imhof, "The Hospital in the 18th Century," p. 462. Admittedly, the parish involved is in a different community.

11. Michael MacDonald, Mystical Bedlam: Madness, anxiety and healing in seventeenth-century England, (Cambridge, 1981).

12. Nonetheless, coverage remains uneven. Interest in the mentally disturbed continues to be more widespread than in patients in general. See Porter, "The Patient's View," p. 183, in which he contends that this is largely because of the polemics of the anti-psychiatry movement."

13. Roy Porter, ed., Patients and Practitioners: Lay Perceptions of Medicine in Pre-industrial Society, (Cambridge, 1986).

14. See Guenter B. Risse, Hospital life in Enlightenment Scotland: Care and teaching at the Royal Infirmary of Edinburgh (Cambridge, 1986).

15. In particular, note the following chapters published in S.E.D. Shortt, ed., Medicine in Canadian Society: Historical Perspectives (Montreal, 1981): Arthur J. Ray, "Diffusion of Diseases in the Western Interior of Canada, 1830-1850," pp. 45-73; Relief MacKay, "Poor Relief and Medicine in Nova Scotia, 1749-1783," pp. 75-92; Daniel Francis, "The Development of the Lunatic Asylum in the Maritime Provinces," pp. 93-114; and, Geoffrey Bilson, "Canadian Doctors and the Cholera," pp. 115-136.

16. See François Rousseau, "Hôpital et société en Nouvelle-France: L'Hôtel-Dieu de Québec à la fin du XVII^e siècle", Revue d'histoire de l'Amérique française, 31:1 (June 1977), pp. 29-47. See also, his L'oeuvre de chère en Nouvelle-France. Le régime des malades à l'Hôtel-Dieu de Québec (Quebec, 1983).

17. Bradley Lewis Chase, "Medical Care for the Poor in Mexico City, 1770-1810: One Aspect of the Colonial Beneficencia", (Ph.D., University of Maryland, 1975).

18. The most recent in the former category is Richard B. Sheridan's Doctors and Slaves: A medical and demographic history of slavery in the West Indies, 1680-1834 (New York, 1985). For Spanish America, see Colin A. Palmer, Human Cargoes: The British Slave Trade to Spanish America, 1700-1739 (Urbana, 1981), especially chapter 7; and David L. Chandler, "Health Conditions in the Slave Trade of Colonial New Granada," in Race Relations in Latin America, Robert B. Toplin, ed., (Westport, Connecticut, 1974), pp. 51-88, and his monograph, Health and Slavery in Colonial Colombia (New York, 1982).

19. See John Tate Lanning, The Royal Protomedicato: The Regulation of the Medical Profession in the Spanish Empire (Durham, North Carolina, 1985). Edited by John Jay TePaske.

20. Donald Cooper, Epidemic Disease in Mexico City, 1761-1813
(Austin, 1965).

21. Josefina Muriel, Hospitales de la Nueva España, 2 vols.
(Mexico City, 1960).

22. David Howard, The Royal Indian Hospital of Mexico City,
(Tempe, 1980); Cheryl Martin, "The San Hipólito Hospitals of
Colonial Mexico: 1566-1702", (Ph.D., Tulane, 1976).

23. W. George Lovell, "Old World Disease and Amerindian Mortality:
Smallpox and Typhus in the Cuchumatán Highlands of Guatemala,
1780-1810", unpublished paper presented at the Symposium on Native
American Historic Epidemiology, The Newberry Library, Chicago,
December 1983.

24. See Imhof, "The Hospital in the 18th Century," p. 462.

25. See Martin S. Pernick, A Calculus of Suffering: Pain,
Professionalism, and Anesthesia in Nineteenth-Century America (New
York, 1985).

26. Inge Langenberg, Urbanisation und Bevölkerungsstruktur der Stadt Guatemala in der ausgehenden Kolonialzeit: Eine sozialhistorische Analyse der Stadtverlegung und ihrer Auswirkungen auf die demographische, berufliche und soziale Gliederung der Bevölkerung (1773-1824) (Cologne, 1981), p. 104. No attempt has been made to write an urban history of colonial Guatemala City nor was it felt that that was required.

27. The structures created by the Hapsburg monarchs in the sixteenth and seventeenth centuries, as well as decisions taken by enlightened Bourbon administrations after 1700, affected those who were admitted for care. The political and educational reforms aided in the hospital's gradual transformation into a bulwark of the Guatemalan Enlightenment.

28. See Jean-Pierre Peter, "Disease and the Sick at the End of the Eighteenth Century," in Biology of Man in History, ed. Robert Forster and Orest Ranum (Baltimore 1975), p. 90. Even though another historian, Arthur Imhof, feels that historians must be cognizant of the problem he tends not to be "overly concerned by it." See his "The Hospital in the 18th Century," p. 458. In addition, see also his article, with Øivind Larsen, "Social and Medical History: Methodological Problems in Interdisciplinary Quantitative Research," Journal of Interdisciplinary History, 7:3 (Winter 1977), pp. 493-498; and Imhof's "The Analysis of

Eighteenth-Century Causes of Death: Some Methodological Considerations," Historical Methods, 11:1 (Winter 1978), pp. 3-35.

29. Peter, p. 112.

30. Risse, Hospital life, p. 121.

31. For a statement of the continuity characteristic of colonial policy in the reign of Charles IV, see: Jacques A. Barbier, "The Culmination of the Bourbon Reforms, 1787-1792," Hispanic American Historical Review (henceforth cited as HAHR), 57:1 (February 1977), pp. 51-68; "Peninsular Finance and Colonial Trade: The Dilemma of Charles IV's Spain," Journal of Latin American Studies, 12:1 (May 1980), pp. 21-37; and, with Herbert S. Klein, "Revolutionary Wars and Public Finances: The Madrid Treasury, 1784-1807," Journal of Economic History, 41:2 (June 1981), pp. 315-339.

32. The admissions records which were used came from the Archivo General de Centro America (AGCA) in Guatemala City. The colonial section of this archive was microfilmed in its entirety, and is now housed in Mills Memorial Library, McMaster University. These are numbered 572-A, 573-A, 574-A, 576-A, 577-A and 1007-A, in the Mills Memorial Library collection. Unless otherwise noted, all

tables and graphs in this thesis are based upon this film.

33. There is an extensive debate over a possible alteration in the importance of race as a determinant of social status in eighteenth century Spanish America. Yet, that importance is never questioned. See, Patricia Seed and Philip F. Rust, "Estate and Class in Colonial Oaxaca Revisited," and "Across the Pages with Estate and Class," in Comparative Studies in Society and History, 25:4 (October 1983), pp. 703-710 and 721-724. Also included in this series is an article by Robert McCaa and Stuart B. Schwartz, "Measuring Marriage Patterns: Percentages, Cohen's Kappa, and Log-Linear Models," Comparative Studies in Society and History, 25:4 (October 1983), pp. 711-720. See also, Robert McCaa, "Calidad, Clase, and Marriage in Colonial Mexico: The Case of Parral, 1788-90," HAHR, 64:3 (August 1984), pp. 477-501.

34. The microcomputer most heavily used was a Kaypro II. Data was entered and listed using "Perfect Filer", and the listings edited using "Perfect Writer". A Columbia VP running "AZPC2" was used to upload the files to the University of Ottawa mainframe.

35. Standard quantitative theory expects that each cell examined will have either a minimum of thirty entries per cell or a cell value of 5% to be considered significant.

36. The camera used in the microfilming was so badly focused that this document was virtually impossible to decipher.

Chapter I

Hospitals and Enlightenment in Bourbon Guatemala

Bourbon Guatemala in the Spanish Empire

Without warning, on a Sunday night in 1773, the disaster came, and the proudest city in the New World was forever humbled.¹

The earthquake of July 29, 1773 and its aftershocks devastated the Central American capital, Santiago de los Caballeros (today's Antigua). Convinced the site was unsafe, the Captain-General of Guatemala Martín de Mayorga ordered that the city be moved to another less vulnerable location.² It was not the first time, in the face of natural disasters, that the kingdom's flag city had been relocated. Nonetheless, traditionalists and vested interests fought the order, albeit to no avail. After much debate and to the consternation of some of the former capital's inhabitants, a new city was raised thirty miles away in the valley of Hermita. It was known as Nueva Guatemala de la Asunción, the present day Guatemala City.

From its official opening in 1778 to the end of the colonial period, the capital was the hub of the kingdom and the focus of the Enlightenment in Central America. The population of the new capital quickly grew to over 20,000 residents. Thereafter, however, it showed no demographic dynamism. Indeed, the population

data show the number of inhabitants to have decreased in those years from 23,434 to 22,985.³

The destruction of Antigua and the subsequent move of the capital offered reforming officials and progressive citizens a chance to put their new ideas into practice. The enlightened men^a of the city were able to take advantage of the void produced by the disaster and, guided by foreign ideas, began to rebuild and revitalize some of the fundamental institutions of the kingdom. Although they were opposed by a number of interest groups, led by ecclesiastics in general and the bishop in particular, the enlightened party, on the whole, prevailed.⁴ This reforming spirit was typical of the intellectual climate which prevailed in all parts of the Spanish Empire during this time.

Indeed, Spanish Americans were eager to avail themselves of the more practical applications of the ideas imported from England and France via Spain. These attempts at reform permeated every sector of society in both the Mother Country and her colonies yet with the promise of the new thought came some very real obstacles to change. Nowhere was this more evident than in the kingdom of Guatemala. As has been amply demonstrated in the historical literature, this distant province was surprisingly aware of European currents of thought.⁵ As in other Spanish colonies, the Enlightenment entered Guatemala with official sanction, and its influence was sustained by a number of important institutions like

the Economic Society, the consulado de comercio, or merchant guild, the Gazeta de Guatemala and the University of San Carlos.

The Guatemalan Economic Society founded in 1794, had as its mandate publicizing new theories and practices in agriculture and mining. More importantly, for the purposes of this study, many of its early members were to serve on the board of directors of the Hospital de San Juan de Dios when it was secularized in 1800. Closely linked to the Economic Society was the consulado de comercio established in 1793 "to protect and advance business interests, to administer mercantile justice and to aid in developing the economy."⁶ The Gazeta de Guatemala, although it was relatively short-lived, provided the literate public with information on current innovations and advances in economics, commerce and medicine. Lastly, the University of San Carlos was recognized throughout the Spanish Empire as one of the most progressive institutions advocating reform.

The ambitions of the Guatemalan elite developed in a somewhat unlikely setting (see Figure 1). The area did not have great mineral wealth like Mexico or Peru, nor did it have the intensive tropical agriculture of a region like Cuba. Until the eighteenth century, the colony was engaged in what proved to be an unsuccessful search for a single produit moteur, to use the expression of Murdo MacLeod, to drive its economy.⁷ Throughout the period, Guatemalans were primarily dependent upon an

Figure 1: Guatemala and Central America in the Eighteenth Century



Source: Navarro Garcia, Luis Intendencias en Indias (Seville, 1959), lamina 3.

underdeveloped Honduran silver mining industry, cattle ranching and the export of specialized agricultural products (indigo and cacao for example) for their revenues.⁸ The latter, in particular, created an unstable economic situation as its profits were directly related to European demand.

During the last century of colonial rule, the search for an economic panacea continued. A series of fiscal reforms under the Bourbons concentrated wealth and power in the hands of Guatemalan merchants. These reforms not only encouraged the merchants to invest in and thus stimulate the silver mining industry but over the years and as their profits increased, allowed them to siphon off power from the regional elites. Although Guatemala might have been regarded as a poor colony, the merchants of the capital city were nonetheless able to gather considerable financial and human resources for their disposal. These resources were mobilized through a socio-economic system that was unusually exploitative, even by Latin American standards. Not only did the periphery suffer at the hands of the centralizing tendencies of the powerful capital city elite, the Amerindian population was forced, through labor drafts, to work in the mines, to extract indigo, to re-build the capital, and to supply the colony with foodstuffs and clothing.⁹

If building the new capital provided this merchant elite with unexpected opportunities, it also created some very special

problems. Indians who had been forced to migrate to the city to partake in its construction were numerically reinforced by black and mulatto artisans. The presence of these coloured castes and impressed Indian workers, some from a considerable distance away, implied the growth of social welfare and public health problems. The elite was compelled to react to these difficulties and in doing so it paid particular attention to medical concerns, an area where eighteenth century thought promised great improvements.

In many ways, the medical plans of the Guatemala City patriciate were founded upon its privileged position in the capital. The upper echelons of the society were deeply involved in both the day-to-day administration of Nueva Asunción and of its major institutions. Those men participating in municipal government were also members of the important Enlightenment organizations in the capital. Their concern about adequate medical services for the urban poor was perhaps not entirely divorced from the need to keep the population calm and may well have derived from the Spaniards' fear of the urban Indians and mulattos.¹⁰ Whatever their motivation, however, they did provide the kingdom's population with the most progressive hospitals and medical practitioners available at the time. The focus of their policy was prevention and care. The elite's interest in public health, however, fueled Church-State conflict in the colony.¹¹

Church, State and Enlightenment

Hospitals and health care in the New World were important to a succession of Spanish kings from the time of the conquest to independence. As in Spain, these hospitals were administered by the Church because only the latter could provide the structures needed to guarantee continuity and the staff required for proper operation of these (even then) complex institutions. More often than not, this task was entrusted to special hospitaller orders.

Supervision of religious foundations, however, belonged to the state by virtue of the Patronato Real, a series of papal concessions giving the Spanish monarchs extensive jurisdiction over church administration in the Indies, in return for the Crown's efforts to christianize the New World.¹² Through its financial contributions and regulatory support, the Spanish crown nurtured the growth of the hospital system in the Indies. "The institutional transfer of hospitals [to the New World] came as early as 1502 when ... medical care was employed as a tool for Indian conversion to Christianity."¹³ Proof of the Crown's concern that quality medical care be available to the inhabitants of its colonies may be found in the Recopilación which dealt extensively with questions of hospital administration, taxation, funding and licensing of physicians, surgeons and pharmacists.¹⁴

One must not conclude on this basis, however, that the Church was in passive partnership with the State where hospitals were concerned. The Church not only played an active part in providing care to the poor but also laid down stringent regulations to be followed by hospital staff and patients alike. The Third Mexican Council (1585), whose orders were still applicable in eighteenth century Guatemala, was most explicit in its three decrees relating to hospitals.¹⁵ Not only were bishops encouraged to found more hospitals but they were exhorted to establish special rules for each institution at the local level. Rules of conduct for administrators, hospital workers and patients alike were, by all accounts, followed fairly rigorously.¹⁶

The decline which Spain experienced during the seventeenth century left the country and its colonial possessions in dire need of reform. Until the Bourbons' enlightened rule most facets of care of the poor and needy had been left in the hands of the Church with seemingly minimal Crown interference. In both Spain and the colonies the regular clergy had administered the hospitals and succored the sick.

One of the most highly respected orders to be charged with caring for the sick poor was that of San Juan de Dios. Its reputation for charity was recognized first in Spain and then throughout Europe long before its members were sent to Spanish America in 1603. The order, under the Augustinian rule, was

established by papal bull in 1571, a formal acknowledgement of the good works performed by the juaninos under the supervision of their patron, Juan de Dios.¹⁷ By the end of the sixteenth century there were twenty-one hospitals run by the Order in Spain alone and the brothers were readying themselves for a call to the colonies.¹⁸ As the Spanish Hapsburg state crumbled in the seventeenth century, however, many colonial institutions, including hospitals and hospitaler orders, deteriorated.

Building upon the modest economic revival of the later seventeenth century, renewal was to come with the ascension of the Bourbons to the Spanish throne early in the eighteenth century. The new royal house interpreted the Enlightenment philosophy imported from France as the way "to raise [the country] to a level of economic, scientific, and technical achievement comparable with that of other European nations."¹⁹ With these objectives in mind, they created an environment conducive to social and commercial reform in the Peninsula as well as the colonies. Many of the changes were implemented during the reign of Charles III (1759-1788) when the revisionists and the central government circumvented the traditional agencies for the diffusion of knowledge, ie: the universities, and sponsored from 1774 onward their own economic societies (sociedades económicas de amigos del país), to disseminate new ideas. The pace of renewal in the colonies, however, quickened as early as 1750 when existing social welfare institutions, including hospitals, began to be reformed.

Inevitably, as in Europe, this reform movement led to a conflict between church and state for control over these old and new foundations.

Both peninsular circumstances and the pliable nature of the Enlightenment itself conditioned its reception in Spain and her colonies. The principal characteristic of the European Enlightenment was its secular spirit with explicit emphasis on reason and implicit rejection of revelation. While such attitudes may have attracted some Spaniards, the clericalism of their milieu made open espousal of such values a potentially dangerous thing. Political circumstances, however, favoured a measure of accommodation to the new thought. The Bourbon succession to the Spanish throne in 1700 opened the country to French influence as never before, as did the new dynasty's commitment to reinvigorate its inheritance. Inevitably this Crown sponsorship cast the Spanish variant of the Enlightenment in a practical and conservative mold.²⁰

As R. J. Shafer has pointed out, the purveyors of the Spanish Enlightenment "were moderate reformers, not revolutionaries or heretics, . . . most of the important revisionists held some sort of official position."²¹ Indeed, royal patronage for their ideas and careers was vital to the success of these progressives, the medium for change often being Crown-sponsored "specialized

institutions formed on foreign models" designed to streamline society and deliver services in a more efficient fashion.²²

Despite the limitations imposed by dependence on a fundamentally conservative state, the reforming mandate encompassed a surprisingly broad base.

As Michael Burke has noted, the practical nature of the Spanish ilustrado, or Enlightenment, allowed for the use of the "new" sciences as concrete tools with which to improve human life:

The Spanish Enlightenment reflected the utilitarian thrust of the later Enlightenment throughout Europe, but it largely ignored the more idealistic concerns with rationalism and natural law that also characterized that intellectual movement elsewhere on the continent.²³

As long as the interests of the reformers and the Spanish Crown coincided, significant "progress" was made. In fact, the proposed changes helped to increase royal power at the expense of traditional, autonomous institutions. For its part, the monarchy was willing to offer support to those who did not threaten its objectives nor unduly menace the existing social order.²⁴

The role of the state was not as evident elsewhere in the Western World. A different situation as regards hospitals prevailed in many other parts of eighteenth-century Europe where

many institutions were maintained by individuals who felt an obligation to care for the sick poor. In England, for example, there was a vast London and provincial movement to found voluntary hospitals to meet the needs of the poor from 1719 onwards.²⁵ Dublin's Lying-in Hospital for Poor Women was established in 1745 and allowed doctors and nurses to develop skills in obstetrics and midwifery.²⁶

In this regard, Catholic countries, such as France and Spain, were more fortunate because many health care institutions were already in place, managed by the various hospitaller orders both at home and in their colonies. On the other hand, Church doctrine involved certain potential obstacles to modernization. }

Catholic hospitals were predominantly places where the faithful might find an outlet for their charitable impulses, as encouraged by the special relationship in Church doctrine between selfless acts and the saving of one's soul. In consequence, these institutions responded, at times, as much to social as to medical needs. In Madrid, for example, both the Refugio and the Foundling Hospital of the Inclusa responded to the needs of eighteenth century society during times of famine and disease.²⁷ These tendencies are clearly reflected by the rules of the order which administered the hospital under study. Again and again, the sick are simply referred to as 'the poor', as if their social circumstances predominated over their medical ones.²⁸ This, in

turn, meant that the hospital was as much a site for the good work of the friars as for the medical care of the ill, with the former perhaps enjoying a certain superiority. As Juan Santos, chronicler of the order, declaimed "one can have charity without a hospital but not a hospital without charity."²⁹ The same tendency can be seen in the great attention the rules devoted to the sacramental care of the terminally ill and in its easy assumption that physicians, surgeons and barbers would be hired help rather than members of the order.³⁰ While the Church had residual control over much of what happened within these settings, one of the more significant outcomes of reform during this period was the gradual relinquishing of those powers to governments bent on centralizing decision-making and secularizing society. Given the new climate of opinion, institutions guided by Catholic precepts no longer seemed inherently adequate. While the state did not wish to forget the sacraments, it did wish to place the emphasis on medical care.

Medical reforms in Spain exemplified these absolutist tendencies. The governing Council of Castile listened to the reformers because it saw in the proposed changes a way to centralize its control over already existing bodies, as well as the means by which it could destroy interest groups traditionally not under its jurisdiction.³¹ Special interest groups like the Church and the protomedicato opposed the reforms. Religious officials interpreted this as an insidious invasion into their affairs. Yet, while Church organizations may have had nominal

authority over hospitals, as early as the fifteenth century the medical profession had been governed by a royal protomedicato established under the auspices of the Crown.³² Likewise, the protomedicato had been able to operate under the guise of an independent organization. It was evident that both groups would lose control over their affairs when these reforms were instituted.

Medicine and Enlightenment in Guatemala

While news of European medical advances spread throughout Spain and her colonies, doctors in the New World were eager to avail themselves of the new information. In Guatemala, the training of physicians and surgeons at the local University of San Carlos became increasingly important as the colony attempted to fill its need for qualified medical personnel. Guatemalan medical personnel were as aware of Enlightenment developments as their foreign counterparts and those who served at the university during the eighteenth century kept abreast of European innovations and showed imagination and initiative of their own, calling into question the traditional view that Guatemala was a backwater of the Spanish Empire.³³

Together with other enlightened colleagues throughout the colonies medical men in Guatemala recognized the importance of

up-dating surgical education and the necessity for increased concentration on anatomical studies.³⁴ In this regard they were following in the footsteps of their counterparts in Europe who had been critical of Spanish medicine since the late 1600s because of its "lack of emphasis on observation . . . and the almost total ignorance of human anatomy."³⁵ Through outside agencies and direct appeals to the King, reformers were gradually able to effect some reasonable change. By 1701, public demonstrations of anatomy had been re-instated at Madrid's General Hospital.³⁶ In Peru and Mexico, Hipólito Unanue and José Dumont were instrumental in having anatomy play an increasingly important role in medical education by the end of the eighteenth century..

On both sides of the Atlantic, surgeons, who had similar objectives for reforming education and restructuring the profession, depended primarily on royal support to overcome established interests. In Spain, as elsewhere, they were anxious to upgrade their status and cooperated with the Crown officials to accomplish their objectives. They managed to gain the support of one of the King's ministers, Pedro de Campomanes, who advocated "a new brand of surgical education" in 1771 and obtained approval for an independent college of surgery under royal auspices in 1774.³⁷ As Burke states in his book on surgical reform in Spain, "the case of surgery would seem to suggest that the scientific and educational [reforms] of the eighteenth century occurred in similar fashion throughout the Spanish empire."³⁸ Between Crown

attempts to reform medical schools and the abundance of new information available to enlightened doctors throughout the realm, aspiring medical men at the end of the century were much better informed than in earlier generations.

The key figures involved in the reform of medicine and surgery in Guatemala were José Flores (1751-1824) and Narciso Esparragosa y Gallardo (?-1819). Flores, physician and chief of staff at the hospital from 1774 to 1796, was the foremost medical professor at the University of San Carlos. In 1774, he published instructions on the precautions to be followed in the case of typhus outbreaks and outlined the relevant patient care. These policies served as the basis for the kingdom's first public health department created forty years later. When he began his inoculation campaign in response to a smallpox epidemic in 1780, it became evident that the medical community in Guatemala was able to devise coherent programs for the population under its care.³⁹

Familiarizing a generally skeptical population with the practice of inoculation served a long-term purpose. By 1803 when Jenner's findings on the effectiveness of vaccination had reached continental Europe, Flores was physician of the King's Chamber. At the urging of Charles IV, he submitted a report to the Council of the Indies which called for a scientific expedition to introduce the vaccine to the overseas Spanish world.⁴⁰ The Francisco Xavier Balmis expedition left La Coruña on November 30, 1803. When his

assistants arrived in Guatemala in 1804, they met a population which was more receptive to its goals than in other parts of the Empire.⁴¹ The public was already cognizant of epidemic control guidelines and the new Jennerian vaccination procedures.

Flores was a member of the Economic Society in the capital and sat on the ayuntamiento or town council.⁴² The Gazeta de Guatemala published the patient statistics of the Hospital de San Juan de Dios and Flores' hospital reports.⁴³ Once the university re-opened in the new capital, he was able to incorporate many of his ideas on medical education both there and at the hospital into an up-dated curriculum which was published by the Economic Society. That notwithstanding, his major contribution to the university was in the form of an anatomical wax figure that could be taken apart and re-assembled organ by organ. Flores was honored for his work on June 21, 1793 when he became head of the first Central American Protomedicato.⁴⁴ By establishing a regional regulatory body headed by an acknowledged enlightened individual, the Crown further strengthened its hand in its on-going dispute with local bishops over jurisdictional matters. The move also allowed more direct royal control over medical practice and gave Flores more power to influence education.⁴⁵ The faculty of medicine, under Flores' leadership, was able to train a number of physicians who were a credit to their country in the eighteenth century.⁴⁶

While Flores was the last to receive his medical degree from the university in Antigua, his successor, Esparragosa y Gallardo graduated in 1789 from the newly-opened institution in Nueva Asuncion.⁴⁷ He was a skilled and able surgeon and in 1797 he became the first in Central America to remove cataracts using the Daviel extraction procedure rather than the depression method.⁴⁸ He also developed a model of elastic obstetrical forceps in 1798.⁴⁹ Esparragosa was instrumental in the creation of the vaccination board in the capital in 1814 and he published a pamphlet one year later on the control of smallpox which "revealed a good grasp of the problem of contagion."⁵⁰ Inside the surgical rooms of the hospital, he carried out experiments with urinary catheters and removed stones from the bladder.⁵¹

Flores and Esparragosa were able to apply many of the eighteenth century medical reforms instituted in Europe to the Guatemalan milieu at the same time as those changes were influencing the practice of medicine in the rest of colonial Spanish America. By 1785 authors from France, England, Scotland, Prussia, Italy, Holland, Spain and Portugal were likely to figure in any up-to-date library in Madrid, Mexico, Guatemala and Lima.⁵² Guatemalan medical students were encouraged to use treatises by Benjamin Bell (1746-1806), an Edinburgh authority on the treatment of tumors and ulcers, and Felix Fontana (1730-1805), an Italian physiologist noted for his work on wounds and complications of

poisoning. They were also familiar with the works of the Royal Infirmary of Edinburgh's William Cullen.⁵³

Flores and Esparragosa were also aware of the dynamic role of surgery in progressive European medicine and, by March of 1798, the University of San Carlos gave its first examination in the subject. By this time, Flores had left Guatemala for Madrid and Esparragosa had replaced him as chief médico at the hospital. He became the principal spokesman in favor of the construction of a dissection room for teaching when the hospital underwent expansion in 1800 and was a major force in obtaining permission to open a college of surgery.

A Secular Hospital in a New City

The pressure exerted by enlightened Guatemalans for better hospital facilities gave the Crown the ammunition it needed to continue its struggle with the Church for control of health care institutions in the colony. Whether the problems occurred in as dramatic a manner in other New World centers is not yet known because very little work has been done on colonial hospitals or the orders who staffed them.⁵⁴ The friars who travelled to the New World in the years following the conquest, however, ran afoul of the Crown in a dispute over jurisdiction and fiscal irregularities in hospital administration in New Spain late in the sixteenth century.⁵⁵ In response, the government requested the juaninos to

assume responsibility for providing hospital care in the colonies after 1603.⁵⁶ Initially they managed the bankrupt Hospital de Nuestra Señora de los Desemparados as well as the Royal Indian hospital in Mexico City.⁵⁷ Once there, they, in conjunction with the hipólitos and the bethlehemitas, played a major role in caring for every component of the multi-racial society which they encountered. Within thirty years of the juaninos arrival, they had either established or assumed control of several hospitals in the viceroyalty.⁵⁸

When the brethren of the Order of San Juan de Dios came to Antigua in 1636,⁵⁹ three of the capital's five hospitals were to come under their control: Santiago for Spaniards and mulattos, San Alexo for the Indians, and San Pedro for the ecclesiastics. By 1685, the Santiago and San Alexo had been combined to cut administrative costs and the San Pedro was left intact.⁶⁰ When the reputations of all the orders fell into disrepute in the mid-1700s, however, reform-minded kings and officials, obviously intent on centralization of their authority, moved to wrest control of hospitals away from Church officials.⁶¹ Yet, as the state moved to place these institutions more stringently under its control, its motives were more regalist than anti-clerical in nature.⁶²

As part of the overall reform movement and in response to complaints of corruption and fiscal mismanagement by colonial

Church officials, the Crown ordered that a general visita be undertaken throughout the Indies from 1772-1774.⁶³ Central authorities of the Order of San Juan de Dios in Spain conducted this inquiry into the activities of the colonial regular clergy and did find some irregularities. The cases of Mexico and Santa Fé (Colombia) serve to indicate the magnitude of the problem faced by royal officials.⁶⁴ In both instances, the visitadores investigated all workings of the hospitals and found that, from a religious standpoint, the care given to the sick was of high quality. Audits of the financial records, however, showed either that proper accounting procedures had not been followed or gross errors in the orders' favor had been made in summations of the accounts. The Crown's response to the improprieties exposed by the visita was to take direct control of the hospitals.

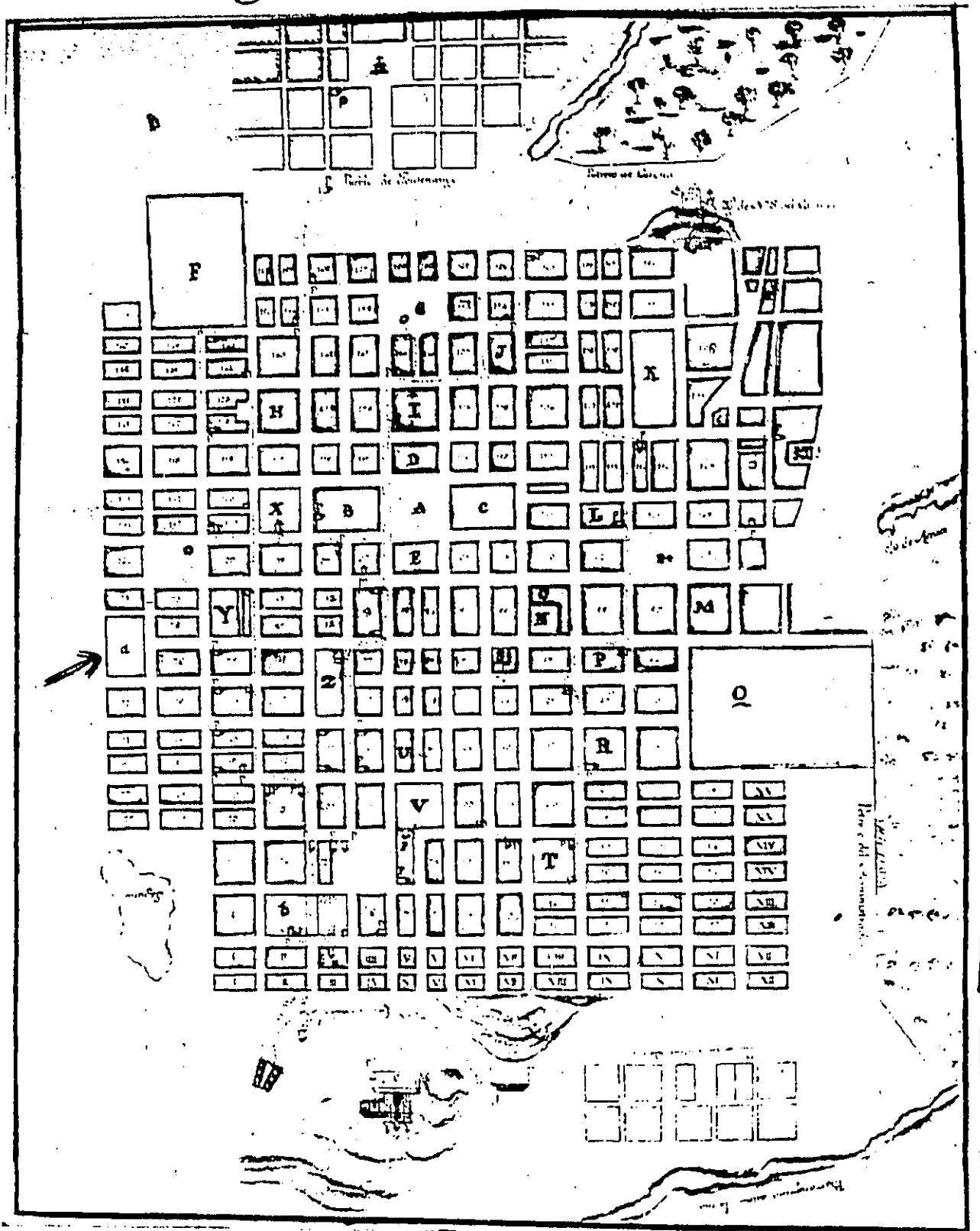
In the case of Guatemala, however, even the distrust shown by enlightened officials for the clergy's control of social welfare institutions did not lead to striking changes in hospital policy.⁶⁵ When the new Hospital de San Juan de Dios opened in the west end of the new capital in 1778 (see Figure 2), the previously outlined thorny issues of Crown jurisdiction and ecclesiastical privilege in health care issues remained unresolved. While the traditional agencies argued over jurisdictional matters, the elite, intent on reform, pursued its goals. The squabbling continued until the end of the eighteenth century with the parties concerned undaunted by natural disaster, royal orders and local

Plano de la Nueva Ciudad de Guatemala: Explicación de el

- A. Plaza Mayor
- B. Real Palacio
- C. Catedral
- D. Cabildo
- E. Real Aduana
- F. Recolección
- G. Parroquia de San Sebastián
- H. Monasterio de Santa Catarina
- I. Monasterio de la Concepción
- J. Monasterio de Santa Teresa
- K. Convento de la Merced
- L. Beaterio de Santa Rosa
- M. Beaterio de Indias
- N. Real Universidad
- O. Colegio Seminario
- P. Monasterio de Capuchinas
- Q. Convento de Santo Domingo
- R. Convento de Belén
- S. Yglesia de N. Sra. del Carmen
- T. Beaterio de Belén
- U. Monasterio de Santa Clara
- V. Convento Nuevo de San Francisco
- X. Escuela de Expósitos.
- Y. Colegio de Niñas
- Z. Convento de San Agustín
- a. Hospital de S. Juan de Dios
- b. Convento Provisional de S. Francisco
- c. Yglesia del Santo Calvario
- d. Matadero
- e. Yglesia de Señor S. José
- f. Tanques de labaderos públicos

Nota: que en las manzanas donde se encuentre la letra P son caxas de agua de repartimiento

Figure 2: Nueva Guatemala de la Asuncion, 1787



Source: AGI, Mapas y planos, Guatemala 265. The arrow indicates the location of the hospital.

discontent. At the heart of the dispute was the future of the Hospital de San Juan de Dios and, as such, the quality of medical care in Guatemala.

Increasing problems over the years with mismanagement by the juaninos and the seemingly anti-clerical mood of many of the reformers challenged the government to establish a hospital that would be administered by secular authorities. Mere discussion of the idea created difficulties. The government, in order to achieve a more efficient service, made various attempts to fuse the often empty hospitals for ecclesiastics with those already established for the general populace. The informe, or report, dated 1 February 1782, outlined the first proposal by the administration to unite the Hospital de San Juan de Dios and the Hospital de San Pedro in order to provide a general hospital for the new capital.⁶⁶ Mere discussion of the idea created difficulties. The report of June 1782 was more specific in its description of a unification scheme, originally proposed by Bernardo Ward and now put forward by Campomanes, to better serve and benefit the public. The general hospital would treat men and women of all classes, including those in the military, the priesthood and the jails, thus combining existing facilities into one larger, more efficient unit.⁶⁷ To this end, the central government needed access to the funds accumulated by the Hospital de San Pedro "to help build a large enough structure and to provide sufficient maintenance funds to

care for all the sick of both sexes that might present themselves."⁶⁸

This may have seemed a good idea to the officials in charge of the construction of the new city but the Church continued to agitate for hospital re-construction in Antigua. The juaninos resisted the fusion of the two salas or rooms. As is usual in these matters, the argument had more to do with money and the maintenance of ecclesiastical fueros, than an interest in providing facilities for the sick. The debate, which could not help but involve Church and state officials on both sides of the Atlantic, continued for fifteen years with unification being achieved only by the proclamation of a royal cédula on June 21, 1795.⁶⁹ In the mid-1790s, when the financing of other welfare activities became burdensome, the Economic Society suggested that the royal portion of a projected fund-raising venture go to the Hospital de San Juan de Dios "at least until other means of succoring the indigent might be found."⁷⁰

The final victory of the enlightened party came in May of 1801 when a lay Hermandad de Caridad (hereafter referred to as 'brotherhood'), composed of the elite of Guatemalan society, including representatives of the dominant Aycinena family, took over the management of the hospital.⁷¹ The members of the brotherhood were charged with both the fiscal administration of the hospital and the well-being of the patients.⁷² Although any

expenditure was subject to Crown scrutiny, it was due to the work of many of these men, in conjunction with medical reformers such as Esparragosa y Gallardo, that the university in Guatemala City received permission to open a college of surgery in 1804.⁷³ The benefit of a change in administration was most poignantly illustrated by the more efficient organization of the patient records after 1801.

In the early years of the nineteenth century, the junta managed a five room hospital, four rooms for the men and one for the women: San Pedro for medicine, Santo Domingo for the poor, San Juan de Dios for surgery, and Nuestra Señora de Guadalupe for the wounded. The women were housed in San Rafael which was divided into separate areas for medicine, surgery and wounded.⁷⁴ Unfortunately there does not appear to be any record of the number of beds available to the sick. The hospital which had been destroyed in Antigua had 96 beds in 1744 and the provisional facilities created during the moving of the capital had 32.⁷⁵ In a census done on May 20, 1801 there were thirty-five surgical and sixty medical male patients plus fifty-five female patients, or a total of one hundred and fifty, receiving care.⁷⁶ The brothers continued in sub-administrative posts at the hospital once the secular board assumed control of the overall management of the institution.⁷⁷

Authorization for the Royal College of Surgery at the hospital came in 1804 and the new wing was completed one year later.⁷⁸ Less than twenty years after the creation of a similar institution in Spain then, Central America was able to claim a surgical college of its own. These improvements allowed for the treatment of a wider range of illnesses while expanding the physical size of the hospital to accommodate more patients. The new college also helped fill the colony's need for licensed surgeons who would practice in the rural rather than urban areas of the kingdom. The trainees who were aware of current surgical techniques would be equipped to offer the most innovative methods of treatment to their patients. The Surgical College at the hospital became the clinical teaching institution for the University medical school and, as such, was the focal point for the instruction of contemporary medical and surgical theory and practice.⁷⁹

Conclusion

The Crown's determination to create a new and efficient hospital system would have been merely of administrative interest if it had not been for the climate of reform which dominated Guatemalan intellectual circles. The upper class and "enlightened" men of Guatemala, who both supported the hospital's work and came to administer it, expected the hospital to provide real services to the sick. The institution's administrators were challenged to

provide care in the midst of a city in full construction and to take advantage of the opportunities which the earthquake offered them. During the reign of Charles IV the leading medical practitioners of the colony were closely associated with the hospital and through these individuals the movement for medical and hospital reform was closely tied to other key institutions agitating for change, such as the economic society and the merchant guild.

At the same time, however, and in spite of all the emphasis on reform, the social condition of the guatemalteco population had hardly changed. The great inequality of wealth meant that health problems were accentuated by the poverty of much of the population. In addition, Guatemala was a multi-racial society where color vied with gender and age as a differentiating factor in illness. Irrespective of these conditions, however, the sick and indigent of late colonial Guatemala had available in their hospital medical men trained according to the best standards of contemporary medical thought and practice. It is to these patients that we now turn.

NOTES

1. William Eleroy Curtis, The Capitals of Spanish America (2nd edition; New York, 1969), p. 73.

2. Domingo Juarros, A Statistical and Commercial History of the Kingdom of Guatemala, trans. J. Baily (reprint edition; New York, 1971), p. 417. According to Juarros, the decision to move was made by the Royal government in January 1774 and confirmed by a royal cedula dated 21 July 1775. See also Wilbur Eugene Meneray, "The Kingdom of Guatemala during the Reign of Charles III," (Ph.D., University of North Carolina, Chapel Hill, 1975), p. 20-21.

3. Juarros, A Statistical and Commercial History, p. 497. See also Langenberg, p. 104.

4. Arguments against moving the main hospital to the new site continued into the next decade. See Archivo General de Indias (henceforth cited as AGI), Guatemala 532 which includes documentation used by the Crown in its assessment of conditions in Antigua after the earthquake. The informe of 5 Nov 1777, denied the Bishop's request for a permanent hospital to be built in Antigua because the decision to move the entire center had already been made. Nearly four years later, the President of Guatemala, now Máthias de Gálvez, was still trying to enforce the original

order to move. In an informe of 7 Sept 1781 he again ordered that the move to new capital must continue.

5. Miles Wortman, Government and Society in Central America, 1680-1840 (New York, 1982), p. 136. "The University of San Carlos reached its height in the years following (the expulsion of the Jesuits) as a center of Enlightenment and absolutist ideals."

6. Robert S. Smith, "Origins of the Consulado of Guatemala," HHR, 26:2 (May 1946), p. 155, 157. See also, Ralph Lee Woodward, Jr. Class Privilege, p.xiii, 7-10.

7. See Murdo J. MacLeod, Spanish Central America: A Socioeconomic History, 1520-1720 (Berkeley, 1973), p. 47-48, 97, 153, and 375 for a discussion of these attempts throughout the colonial period.

8. See Murdo J. MacLeod, "Ethnic Relations and Indian Society in the Province of Guatemala ca.1620-ca.1800," in Spaniards and Indians in Southeastern Mesoamerica: Essays on the History of Ethnic Relations, Murdo J. MacLeod and Robert Wasserstrom, editors (Lincoln, 1983), p. 189-214.

9. Wortman, Government and Society, p.116. See also Wortman's "Government Revenues and Economic Trends in Central America, 1787-1819," HAHR, 55:2 (May 1975), pp. 251-286; and, "Bourbon Reforms in Central America: 1750-1786," The Americas, 32:2 (October 1975), pp. 222-238.

10. Christopher Hayden Lutz, "Santiago de Guatemala, 1541-1773: The Sociodemographic History of a Spanish-American Colonial City," (Ph.D., University of Wisconsin-Madison, 1976), p. 7-9. They were, after all, in a distinct minority. See also, p. 608 where Lutz concludes that the Spaniards were able to maintain some degree of goodwill through "kinship ties and a hierarchical patron-client system."

11. Jacques A. Barbier and Lynda deForest Craig, "Lepers and Hospitals in the Spanish Empire: An Aspect of Bourbon Reform in Health Care," Ibero-Amerikanisches Archiv, 11:4 (November 1985), pp. 283-406.

12. Clarence H. Haring, The Spanish Empire in America, p. 167, 173.

13. Guenter B. Risse, "Medicine in New Spain: Institutions and Practice, 1570-1621", published in Proceedings from the 27th International Congress of the History of Medicine, 1981, volume 1, pp. 207-211.

14. The Recopilación de leyes de los reynos de las Indias was a four volume work published in Madrid in 1681, the most comprehensive effort to codify the laws governing Spanish America. The regulations specific to hospitals are found in libro I, título IV, ley 1; lib. I, tít. VI; lib. V, tít. VI, ley 7.

15. Directório del Sancto Concilio Provincial Mexicano celebrado este año de 1585. Handwritten manuscripts in the Metropolitan Archives, Mexico City, lib. III, tít. XIV, decrees 3-5. My thanks to Father Stafford Poole who kindly translated the decrees from the original Latin and made his work available to me.

16. Directório, decrees 3, 4 and 5.

17. The specific guidelines for the operation of the Order were laid down in Reglas del Bienventurado Padre San Agustín, y constituciones de la Orden de Juan de Dios, (Madrid, 1612). A concise biography of Juan, patron saint of hospitals, was published by Grace Goldin. See her "Juan de Dios and the Hospital

of Christian Charity", Journal of the History of Medicine and Allied Sciences, 33:1 (1978), pp. 6-34.

18. Juan Santos, Chronologia hospitalaria y resúmen historical de la sagrada religion del Glorioso Patriarca San Juan de Dios, (2 volumes; Madrid, 1721), 1, pp. 56-61; 2, p. 594.

19. Jaime Vicens Vives, Approaches to the History of Spain, trans. Joan Connelly Ullman (2nd edition; Los Angeles, 1970), p. 117.

20. Richard Herr, The Eighteenth Century Revolution in Spain, (Princeton, 1958), p. 3.

21. Robert J. Shafer, The Economic Societies in the Spanish World (1763-1821), (Syracuse, 1958), p. 19.

22. Shafer, p. 20.

23. Michael Burke, The Royal College of San Carlos: Surgery and Spanish Medical Reform in the Late Eighteenth Century (Durham, 1977), p. 5. His study of the Royal College is the first attempt by an English-speaking academic to delve into the state of Spanish medicine in the late eighteenth and early nineteenth centuries.

The work is significant in that it deals with the age of reform from the peninsular perspective and offers a means by which to compare Spain with other European centres.

24. Burke, p. 15.

25. See John Woodward, pp. 147-148. The author lists seven hospitals in the London area and twenty-eight in the provinces which fall into this category. In addition, he provides information on five similar institutions operating at this time in Scotland.

26. See A. E. Clark-Kennedy's The London: Volume I, 1740-1840, (London, 1962) and The Radcliffe Infirmary, (London, 1926) by Alexander Gibson.

27. The work of the Hermandad del Refugio as an example of corporate charity in old regime Spain is detailed in William J. Callahan's article, "Corporate Charity in Spain: The Hermandad del Refugio of Madrid, 1618-1814," Histoire sociale/Social History, 9:17 (May 1976), pp. 159-186. Joan Sherwood's dissertation, "Abandoned and Illegitimate Infants in Eighteenth Century Spain: A History of the Foundling Hospital of the Inclusa", (Ph.D., University of Toronto, 1978), is one of the few pieces which

attempts to integrate patients and society with the economic forces acting upon them.

28. See Reglas, especially Rule 69, folio 40r.

29. Santos, p. 594.

30. Reglas; Rules 20, 76 and 77 on folios 25v. and 41v. respectively.

31. Burke, p. 69 and 196.

32. Burke, p.28. Its major function was to license all physicians, surgeons, barbers and pharmacists as well as to define the requirements of study and privileges of each group. The protomedicato was one of many institutions transferred to the new world from Spain after the conquest.

33. This traditional view is refuted by Burke, p. 37; see also, Wortman, Government and Society, p. 136 and Lanning's work on the eighteenth century. See specifically, Lanning's major work, The Eighteenth Century Enlightenment in the University of San Carlos in Guatemala, (Ithaca, 1956), pp. 207-303, for an in-depth

discussion of academic medicine.

34. John Tate Lanning, Academic Culture in the Spanish Colonies, (2nd edition; New York, 1940), p. 107-108.

35. Burke, p. 37-38.

36. Burke, p. 38.

37. Burke, p. 61 and 69-73. Much later, at the urging of Bernardo Ward and Campomanes, changes in the format of surgical training led to the creation of an independent college of surgery in 1787 and to the autonomy of the surgical profession outside the jurisdiction of the Protomedicato but still under Crown control.

38. Burke, p. 64.

39. The result of that campaign was the publication of his instructions on the method of inoculation. See José Flores, Instrucción sobre el modo de practicar la inoculación de las viruelas, y método para curar esta enfermedad, acomodado a la naturaleza y modo de vivir de los Indios del Reino de Guatemala, impreso de orden del supremo gobierno (Guatemala, 1794).

40. Michael M. Smith, The 'Real Expedición Marítima de la Vacuna' in New Spain and Guatemala, (Philadelphia, 1974), p. 13.

41. Smith, p. 51. Sherburne F. Cook's earlier articles on the same topic are also worthy of note. See Dr. Cook's, "Francisco Xavier Balmis and the Introduction of Vaccination to Latin America, Part 1," Bulletin of the History of Medicine, 11:5 (May 1942), pp. 543-560. Part 2 was published in the same journal, 12:1 (June 1942), pp. 70-101.

42. Carlos Martínez Durán, Las ciencias médicas en Guatemala, (3rd edition; Guatemala, 1964), p. 314.

43. The Gazeta was published in Guatemala City from 1797 to 1810. See the Gazeta de Guatemala, 31 (February 27, 1797), p. 23 for a resume of admissions, discharges and deaths from 1 Jan. 1792 to 31 Dec. 1796.

44. Lanning, Eighteenth Century Enlightenment, p. 233; and, Henry E. Sigerist, "Medical History in Central and South America," Bulletin of the History of Medicine, 9:3 (March 1941), pp. 354-355.

45. A royal cédula of that date created the body free of Mexico City's control. A protomédico had in fact been in Guatemala and all audiencia seats since the mid-sixteenth century with jurisdiction over examinations and licensing from 1579. Prior to that time, the cabildo or town council had controlled medical practice. In 1570, Philip II created the Protomedicato in America and sent royal physicians there to act as protomédicos. At that time their basic job was to write a natural history of the area to which they were assigned and to inform the Crown of all herbal cures used by the native population. See Lanning, Academic Culture, p. 113-114. The creation of the body in Guatemala came after a series of protomedicatos had been established in Peru and Buenos Aires as early as 1777.

46. Lanning, Eighteenth Century Enlightenment, p. 208.

47. Martínez Durán, p. 287.

48. See Lanning, Eighteenth Century Enlightenment, p. 278. Jacques Daviel (1696-1762), an oculist, was the originator (1752) of the modern treatment of cataracts which involves the extraction of the crystalline lens.

49. Burke, p. 127-128; and, Lanning, Eighteenth Century Enlightenment, p. 277. See also, Esparragosa's personal account, Memoria sobre una invención fácil y sencilla para extraer las criaturas clavadas en el paso sin fiesgo de su vida, ni ofensa de la madre, y para extraer la cabeza que he quedado en el utero separada del cuerpo (Guatemala, 1798).

50. Lanning, Academic Culture, p. 122.

51. Lanning, Eighteenth Century Enlightenment, p. 278.

52. Lanning, Eighteenth Century Enlightenment, p. xvi and 344.

53. Lanning, Academic Culture, p. 133.

54. See the works of Josefina Muriel, David Howard, Bradley Lewis Chase and Cheryl Martin.

55. A letter dated 4 February 1587 from Viceroy Alvaro Manrique de Zuñiga to Philip II described the dreadful state of hospital administration in New Spain. Some supposedly royal hospitals were operating without the required licenses while those in charge practiced fiscal irresponsibility. The result was a confrontation

between the Crown and the colonial episcopal bureaucracy. More detailed attention to this is given in Martin, p. 212-213.

56. See Chase, p. 51 and for information on the juaninos see Muriel, volume 1, p. 236-240 and 255.

57. They were eventually given ownership of the Hospital de Nuestra Señora de los Desemparados at which time they changed its name to Hospital de San Juan de Dios. Chase, p. 18 and 29.

58. See Muriel, volume 2, p. 81 and 144; Domingo Juarros, Compendio de la historia de la ciudad de Guatemala, 2 volumes (3rd edition; Guatemala, 1936), volume 1, p. 170-173; and Miguel Larreynaga Prontuario de todas las Reales Cédulas ... de 1600 hasta 1818, (Guatemala, 1857), p. 152 listing lib. I, tit. XIV, ley 24 of the Recopilación. See also José Villacorta Calderón, Historia de la capitania general de Guatemala, (Guatemala, 1942), p. 224-25.

59. See Martin, p. 46. The Order was appointed by the Audiencia of Guatemala to manage the hospital of Santiago once the hipólitos relinquished their control in 1626.

60. Juarros, Compendio, 1, p. 170-172. The Order managed the two units for ninety years.

61. See Martin, p. 280. For a discussion on the same government-sponsored activities and goals as regards hospitals and the Church in Spain itself, see William J. Callahan, "The Problem of Confinement: An Aspect of Poor Relief in Eighteenth-Century Spain", HAHR 51:1 (February 1971), pp. 1-24, taking special note of his conclusions on p. 23. Callahan is in agreement that the state was able to supplant the Church in performing charity-related acts.

62. Meneray, p. 274. The attacks upon the Church were politically motivated to weaken the "Crown's strongest competitor for power over the people."

63. Chase, p. 31.

64. For Mexico, the results of the inspection carried out by Caballero were published in two volumes out of Mexico in 1945 under the title, Visita y reforma de los hospitales de San Juan de Dios de Nueva España en 1772-1774 [ed. Rómulo Velasco Ceballos, 2 vols. (Mexico, 1945)]. As discovered during the Santa Fé inspection, the problem was a financial one. See AGI, Indif. 3078

for a complete transcription of the visita in Santa Fé.

65. While the records of the visita in Guatemala are not available, a similar response as regards control came later than in Mexico. The Laws of Consolidación were policy throughout Spanish America by 1804 and the debate among scholars of colonial Latin America over their impact continues. As relating to Guatemala, however, the only work done on this subject is an article by Geoffrey Cabat, "The Consolidación of 1804 in Guatemala," The Americas 28:1 (July 1971), pp. 20-38.

66. AGI, Guatemala 532. In addition, see Martínez Durán, p. 345.

67. AGI, Guatemala 532. Informe of 7 June 1782.

68. AGI, Guatemala 532. Informe of 24 October 1783.

69. Martínez Durán, p.346.

70. Shafer, p. 207.

71. Shafer, p. 518. Although the junta accepted responsibility for the hospital's administration at this time, the regulations governing its activities were not published for another five years. Larreynaga, p. 154, cites a cédula of 9 March 1805 as the one which outlined the constitution of the brotherhood.

72. The members of the first hermandad were Don José Isasi, Don José Aycinena, Don Gregorio Urrula, Don Juan Antonio Araujo, Don Blas Rodríguez y Zea, Don Manuel Palacios, Don Sebastián Melón, and Don José Gil. Its head was Señor Don Pedro Aycinena y Larragón and the controller was Don José Palencia. McMaster microfilm reel 577-A, AGCA, exp. 12184, leg. 1865.

73. Lanning, Eighteenth Century Enlightenment, p. 296 and Martínez Durán, p. 513-514.

74. Martínez Durán, p. 518.

75. Martínez Durán, p. 284 and 324. Once the decision to move was finalized José Flores was left in charge of transferring the hospital from Antigua to its new location at the west end of the new city, leaving the juaninos to administer a provisional unit until the move's completion and to continue to work in the Hospital de San Pedro for sick priests.

76. McMaster microfilm reel 573-A, AGCA, exp. 12131, leg. 1850. This of course was before the addition of the surgical wing in 1805. On census day in 1794 in Mexico City there were 100 patients, 44 men and 56 women in the Hospital de San Juan de Dios. See Chase, p. 92.

77. Salary records indicate that the juaninos never held medical posts, save in the case of nurses. See AGCA, exp. 14450, leg. 2063 for 1786 records.

78. Esparragosa began teaching in the Sala de San Pedro, the medical room, until April 1805. Martínez Durán, p. 514 and Lanning, Eighteenth Century Enlightenment, p. 296. He remained as head of the College until his death in 1819.

79. This was not unlike practices in Europe at the same time. See Risse, Hospital life; and Gelfand, "The Hospice of the Paris College of Surgery, pp. 375-393.

Chapter II

The Patients of the Hospital

The Patient Admission Registers

The patient registers from the hospital in Nueva Guatemala are surprisingly similar to modern hospital admission forms in both organization and detail. There are separate lists of male and female admissions to the Hospital de San Juan de Dios, each one covering a single year divided into twelve monthly periods. Each entry begins with the bed number assigned to the patient along with the date and reason for admission. Social information, including the patient's name, next-of-kin, marital status, place of birth or residence, race and age, is also provided. In the libros, or admission books, of the earlier years, the date of discharge is given. As recording became more precise, the length of time which each patient spent in hospital was also entered. A uniform method of identifying those who died in the hospital was used throughout the documentation. In some cases, the burial records of the hospital were sufficiently legible to allow cross-referencing with the entries in the libros.

The degree of detail contained in these admission books is very much in keeping with the bureaucratic mentality pervading Spanish colonial life and also reflected an internal need to document the hospital's activity to periodic auditors and investigators. Other early modern hospitals in Europe and colonial settings kept similar records.¹

It is difficult to assess the type of care received by individual patients after their admission to the hospital. By 1808, the sick were placed in one of three existing departments for medical, surgical or injury cases (departamentos de medicina, de cirugía, de heridos) after initial assessment. In the 1790s, however, the lists did not designate whether the patient was in need of medical or surgical attention. It is true, of course, that as early as 1791 attempts were made to distinguish patients admitted with injuries from those with other complaints. There exist lists of heridos (injured or wounded) for the years 1791 to 1795.² Unfortunately these are not complete, nor is it certain what they signify, as the departmental structure of later years did not exist. From 1803 onwards a distinction was made between admissions to the medical and surgical departments of the hospital. Patients who had sustained injuries and required admission were registered in the surgical lists. In 1806 a further complication was introduced as the hospital began to keep formal libros de heridos, thereby distinguishing, administratively at least, between the traumatic and general surgical cases.³ Inherently, of course, the care given the wounded fell within the purview of the surgeon. Thus, the system became increasingly bureaucratized and presumably more efficient during the period under review, a success in Enlightenment terms.⁴

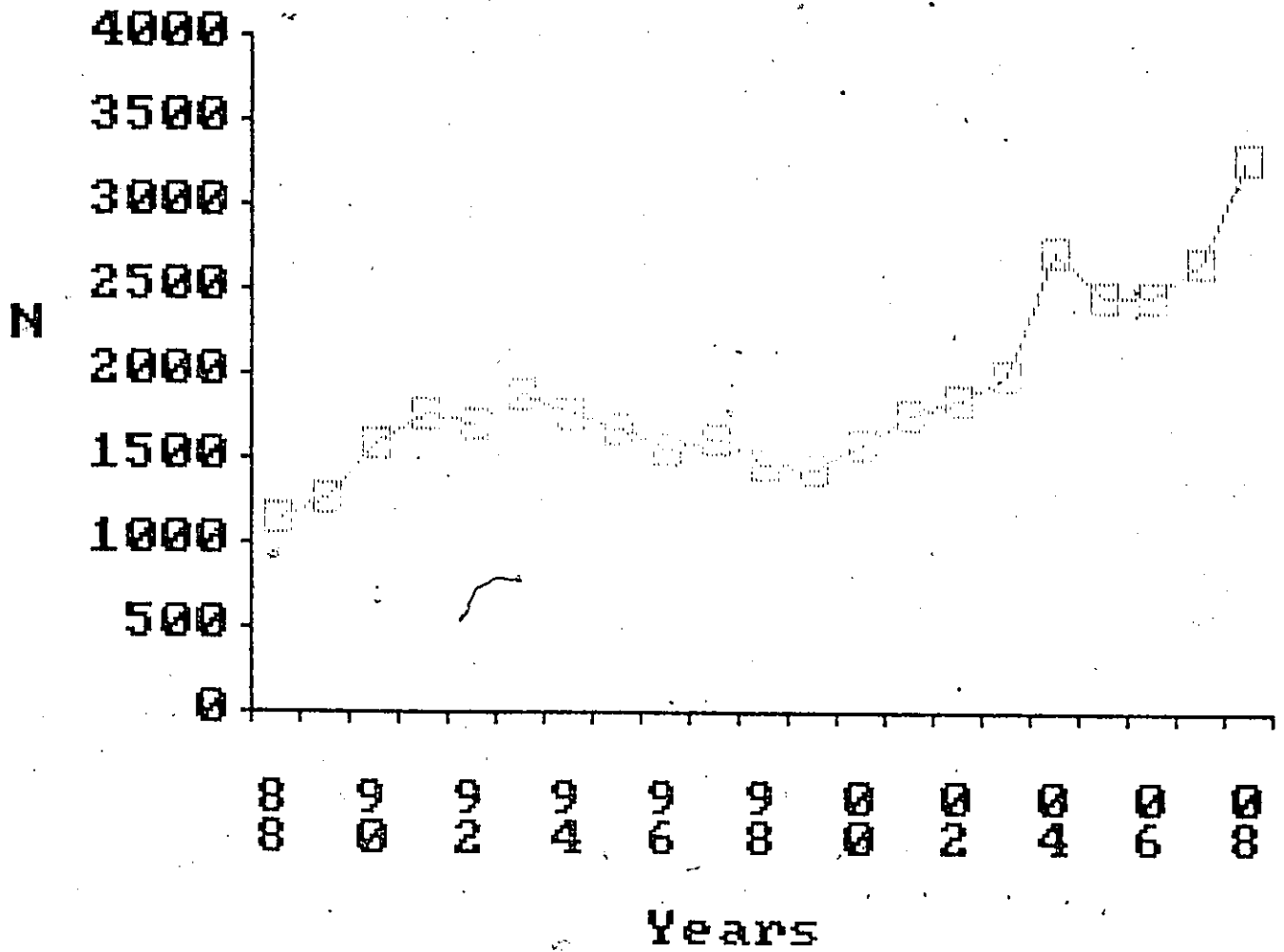
The Patient Population

A total of 40,065 civilians were admitted between 1788 and 1808 (see Appendix Table 1).⁵ While the average number of patients entering the hospital per year was around 2000, that figure is deceiving. For fifteen of the twenty-one years covered the actual number of admissions was below the mean. There was clearly a growth in admissions over time (see Graph 1).

In part, the phenomenon can be explained by the slow start of the institution. Thus for 1788 and 1789 total entries numbered less than 1300. From 1790 to 1802, however, admissions were relatively stable although epidemic years (1790, 1793) lent to the early 1790s a somewhat greater weight than the latter part of the decade. On the whole, however, the high mean figure is simply the result of the great increase in patient admissions from 1803 onwards, peaking at 3295 persons in 1808. Forty percent of all patients admitted over the entire period entered in those final six years (approximately 30% of the time period under study).

This increase in hospital admissions after 1803 does not correspond to a growth in Nueva Guatemala's population. On the contrary, the population apparently declined, at least slightly, between 1795 and 1805. Over that period, available census data

GRAPH 1: PATIENT ADMISSIONS, 1788-1808



shows the number of inhabitants in the city to have decreased from 23,434 to 22,985.⁶ As the alteration in patient population was not due to demographic growth, the most plausible explanation for the high number of admissions in those final years is likely to be found in the administrative changes which occurred between 1801 and 1803. The most salient of these is undoubtedly the consolidation of the institution's role as the capital's General Hospital. It is true, of course, that 1804 and 1808 were epidemic years. Nonetheless, admissions for 1805-1807 were well above previous norms. The increase in patient population was structural and not accidental.

Nor can economic circumstances be blamed. Although the grinding poverty of the lower classes might be considered a factor, it was a constant feature of colonial life and the poor of the capital were less susceptible to its effects than those in outlying areas. Indeed, the capital held a disproportionate share of the colony's charitable institutions and the city's elite had a clear stake in keeping want from becoming a socially disruptive factor.

The junta which took over the hospital in 1801 gradually established firmer control over the institution's operations and the physical extension of its facilities. By 1803, its members were encouraging the sick to present themselves at the hospital for treatment. This dynamic policy in part reflected more adequate

funding levels. More importantly, however, the institution now had a new philosophical orientation. As the general hospital offering multiple medical services in the new capital, its administrators were less concerned with Christian charity and more pre-occupied with public health. Getting the sick off the streets and out of the homes was a preventive measure against contagion, as well as a means of providing even the non-contagious with professional care.⁷

A more problematical explanation of the increase in hospital population is that the gender ratio became more evenly balanced. In fact, near the end of the period women, hitherto under-represented, flowed into the hospital in even greater numbers. Of total admissions, 25,850 were male and 14,215 were female (see Appendix Table 1). Yet, the standard demographic history of late colonial Guatemala City written by Langenberg shows that males were a minority in the capital's population. It is not at all clear why there should have been so few men in the city. Nonetheless, while males made up 39.7% of the population in 1805, they comprised 63.3% of hospital patients. In contrast, even though females were numerically dominant (60.3%), they only represented 36.7% of admissions to the hospital in that same year.⁸ Nor can this under-representation be explained by the existence of other institutions. There were no gender-specific facilities, such as lying-in hospitals, where women could go.

The dynamics of the hospital and the city populations were very different. The proportion of males to females in the new capital was almost static from the start. Although Langenberg does not have statistics for the entire city for 1796, her figures for three highly representative neighborhoods (barrios) show females outnumbering males by a ratio of 3:2.⁹ This continued to be the case. Three-fifths of the population was female from 1805 to 1824.¹⁰ The same was not true of the hospital population. Whereas 29.8% of hospital patients were women in 1788 they accounted for 41.5% of the total twenty years later, 1.4 times the previous level (see Appendix Table 1). The propensity of women to enter hospital increased and consequently the number of admissions rose. It is clear that this higher rate of admissions of women is not of itself an adequate explanation for the overall rise in hospital population. Indeed, the number of male patients also increased spectacularly.

It may well be that the increase in patient population was due to different factors in the case of men and women. One might suspect that an increase in injuries due to a heavier construction schedule in the capital would lead to a rise in admission of males to hospital. This was not the case, however, as injured men accounted for around 20% of the hospital's male admissions from 1796 onwards. There was a slight increase in 1800 when admissions due to injury reached 24% but by 1804 they had declined to previous levels..

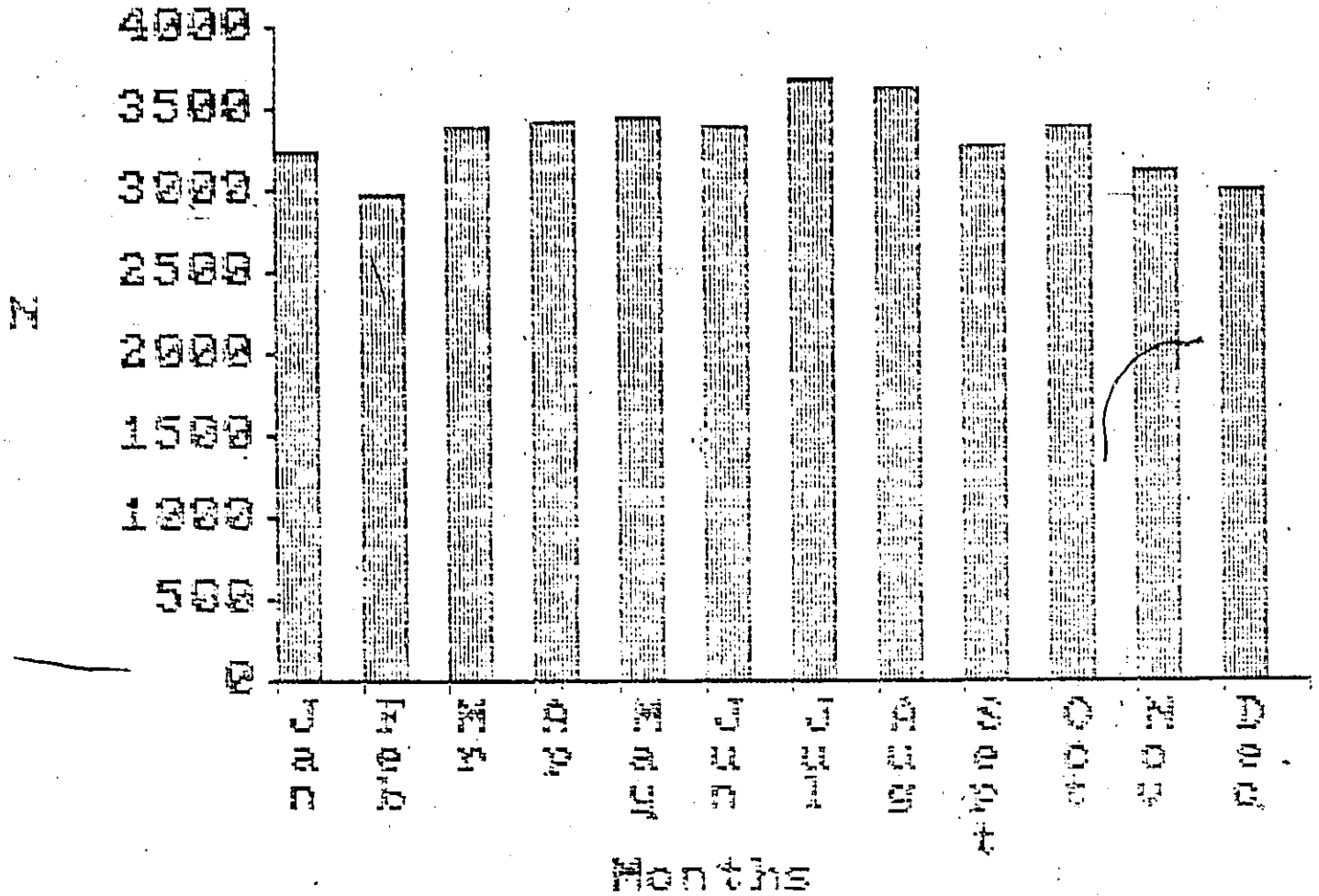
Changes in hospital administration after 1801 seem to have been responsible for the increased admissions. It is striking, for example, that members of the brotherhood charged with running the hospital patrolled the streets to find men who needed medical attention. There is, however, no indication that they were as eager to receive afflicted women although their numbers rose even faster.

The increase in female admissions may have been due to altered social patterns. One might argue that society discouraged women from going to hospital. Sample evidence, however, tentatively suggests this was not a serious factor. If it were one would expect females to be more ill than males on admission. Yet, in comparing the length of stay of females prior to death to that of males in similar circumstances, one finds that women die at only a slightly lower rate than men (42% to 47%) in the first week of hospitalization, presumably the acute phase of their illness. If one includes those who die during their second week of confinement, the difference is even less significant, 63% of the women and 65% of the men die. Thus, females do not seem to have come to hospital in a more critical state than males. Overall women did die at a consistently higher rate, about 17%, than men, whose death rate fell from 15% (1792-1796) to 12% (1802-1808).¹¹ This is not likely, however, to reflect their state of health on admission.

An examination of admissions on a seasonal basis does not yield any clear differentiation either. Although the country, known as the land of eternal spring, is located in the tropics, Guatemala City its capital lies in the tierra templada, 1500 metres above sea level in the central highlands of the Sierra Madre mountains.¹² Still, its year-round moderate climate is characterized more by seasonal differences in precipitation than in temperature. There is only a 5 C variation between rainy (May through October) and dry (November through April) months and as one would expect under these conditions, there is little fluctuation in admissions based on climatic change (see Graph 2).¹³ Rainy season admissions were only five per cent higher than dry season ones, a moderate variance at best.¹⁴

In an attempt to determine what differences might in fact exist, the admissions from an even number of rainy and dry seasons (20) were compared.¹⁵ In fourteen instances, more persons did enter hospital in the rainy season. In two others the numbers were virtually identical (see Appendix Table 2). As expected, slightly more were admitted with fevers, inflammations and gastrointestinal complaints in the rainy seasons whereas traumatic causes were more prevalent in the dry.¹⁶ Still in both instances, fevers and traumatic injuries were the most numerous. This certainly is different from what one finds in temperate zone hospitals. People there were just as susceptible to epidemics as in Guatemala. In

GRAPH 2: MONTHLY ADMISSIONS, 1788-1808



addition, however, in winter months they also came in with frostbite, bronchitis or influenza, more common to colder temperatures.¹⁷

Another element is the seasonality of food supplies. While one might speculate on the relationship between this factor and illness requiring hospitalization conclusive evidence cannot be presented. It was normal for city governments in Spanish America to guarantee supplies for the urban population through a complex system of municipally-regulated slaughterhouses, granaries and markets and through forced deliveries of Indian labor and produce.¹⁸ City dwellers seldom starved.

Social Characteristics of Patients in the Sample

Before examining the characteristics of the sample hospital population, attention must be directed to the function of the hospital. Did it provide active medical care or was it more concerned with other forms of welfare, and at the limit, social control? In principle, all Spanish hospitals aspired to be medical institutions. As early as 1585, the Third Mexican Council decreed that the people admitted to hospitals were to receive medical attention.¹⁹ The eventual secularization of the hospital did nothing to alter that. The institution bore some responsibility to the state, accepting prisoners and soldiers as patients. Yet this

was a question of service to the community. Social control did not seem to be the primary function of the hospital.

Nonetheless, it is clear that it served as a workhouse for some individuals. On May 13, 1794, for instance, Sebastina Ropel, a thirty year old single woman, registered at the hospital to serve a sentence of seventeen months for an unspecified crime.²⁰ Members of the brotherhood also made nightly rounds to find and bring to hospital individuals who had been hurt as part of the capital's nocturnal activities. These searches were somewhat similar to the welfare patrols in eighteenth century Madrid which provided an ambulance service to transport the seriously ill to hospital.²¹ Yet provision of emergency medical care and not temporary pauper housing was clearly the aim of the Guatemalan patrols.

Similarly, the hospital did not provide the type of long-term care which is sometimes a cover for social welfare needs. There is nothing in the files to indicate that patients remained for a protracted period beyond the acute phase of their ailments. Although the average time spent in hospital was three weeks, the patient turn-over was relatively rapid. The largest group in the sample (one hundred and forty-three persons) stayed for only five days. Over fifty per cent were hospitalized for less than two weeks (see Table 1).²² Nine per cent were chronic cases, staying

longer than fifty days. It appears that admissions and discharges were made on medical grounds irrespective of social conditions.

Table 1: Length of Time Patients Spent in Hospital (from sample)

Time in Hospital	Number	%
1 to 7 days	771	25.92
8 to 14 days	809	27.19
15 to 21 days	483	16.24
22 to 28 days	296	9.95
29 to 35 days	197	6.62
36 to 42 days	98	3.29
43 to 49 days	54	1.82
50+ days	267	8.97
Total	2975	100.00

The patients in the sample were from varied backgrounds, represented several racial groups, and came into hospital with over four hundred different complaints.²³ Their admission forms provide unique information on the characteristics of the hospitalized sick in the late eighteenth century. Seven attributes (variables) provide insight into the social make-up of the hospital's population: race, marital status, and age of the patient, mortality rate, length of stay, place of birth or residence and reasons for admission to hospital. In special cases, the legal status of the patient was recorded: thirty prisoners, usually transferred from the city's jail, and one priest are included in the sample population.²⁴

The eight racial groups originally identified in the sample were españoles, mestizos, castizos, ladinos, mulatos, pardos, negros and indios.²⁵ The numbers in four of these were so small,

however, that they were re-grouped according to the presence of Indian or negro blood into the more comprehensive classifications of mestizos and mulatos respectively (see Appendix Table 3) and together with Spaniards and Indians make up the categories retained for analysis. Spaniards and mestizos were admitted in relatively low and equal numbers (307 and 347, respectively) while over forty-five per cent of the patients (1351) were mulatto. Mulatos and indios combined, representing as they did the lower levels of the racial hierarchy, made up over three-quarters of the hospital population.²⁶

As those of African and Amerindian origins were dominant demographically in colonial Latin America and as they traditionally had been cared for in crown approved but ecclesiastically operated institutions, this is not particularly remarkable. For the most part, this general pattern is confirmed by Langenberg's figures for Nueva Guatemala in which a 'mixed' group includes the mestizo and mulatto elements. The white upper echelons of the society accounted for a small and decreasing percentage of the population in the new capital and were under-represented in the hospital setting (see Table 2). Mixed race representation in San Juan de Dios was characteristic of the importance of these groups in the city while indios were certainly over-represented. As one can associate race and social condition, the poorer and more transient elements of the population were more likely to come to hospital than the white and the rich.

Table 2: Racial Components of Hospital Patients (1788-1808) and City Population (1782 and 1820) (in %)

	Hospital	City	City
Combined Categories	1788-1808	1782	1820
Spanish	10.24	20.0	15.0
Mestizo	11.58 ---	- 67.0	60.0
Mulato	45.08 ---		
Indio	33.09	13.0	25.0
Total	99.99	100.0	100.0

Source: For racial components of the city population see Langenberg, p. 247. She gives approximate figures for a mestizo-mulato group, referred to as 'mixed'.

Notwithstanding this, the most surprising results relate to the proportion of Spaniards, particularly Spanish women, in the hospital population. Race was highly correlated with socio-economic status in Spanish American society and, given the reputation of hospitals of that era in the historical literature, it is unexpected that any proportion of the patients should have come from the upper classes. Nonetheless, after 1800, eighteen men who referred to themselves as Don were admitted to the hospital.²⁷ In addition, over the entire period, no less than 11.7% of all males and 7.8% of all females were classified as being Spanish (see Table 3). The number of white women is particularly surprising given the protectiveness of Latin American society. One even finds Doñas in the sample -- 2 in 1795 and 3 after 1800.

Table 3: Patients by Race and Gender, 1788-1808 (in %)

Race	Male	Female
Spanish	11.7	7.8
Mestizo	10.1	14.0
Mulato	44.6	45.9
Indio	33.6	32.3
Total	100.0	100.0

The relationship between status, race and wealth in these eighteenth century Latin American societies was complicated. In general, status was accorded on the basis of race and within each racial group by wealth. Prejudices were such that it was difficult to believe that a person who was poor was white and that one who was rich was anything but, unless the visual evidence was overwhelming. If some members of rich white families became poor, a discrepancy arose between status and wealth. Thus, in some cases the honorific title Don was still accorded even though economic circumstances did not justify it. On the whole, however, there was a tendency for families to sustain their poorer members so as to avoid the shame of having destitute relations. Further, political authorities often attempted to improve the economic circumstances of families of high racial status who had fallen on hard times.

This point is particularly poignant as regards women because of the protectiveness colonial society showed towards females of high racial status. The vagaries of family life were such that women who had once had prominent fathers or husbands to provide

for them could find themselves without those advantages due to the death of the male, a barren marriage or lack of a local extended family. To the society as a whole they might continue to be known as Doña even though wealth) and relations would have vanished. Such people who enjoyed high social status tended to benefit from a hidden social safety net, however, friends of the former head of their household and church and political authorities, who together conspired to maintain social decorum.

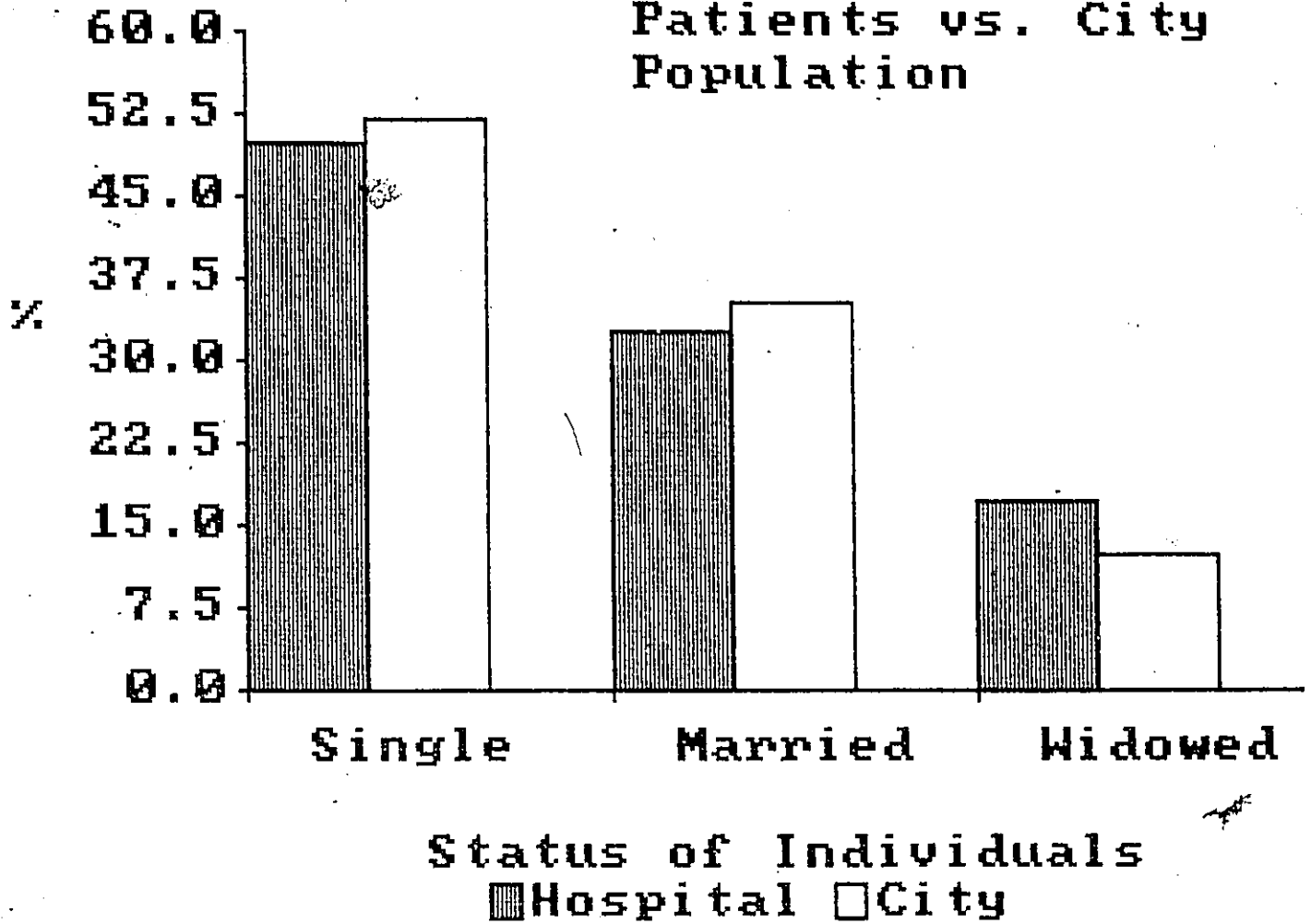
On the basis of the above then, the presence of whites and nobles in the hospital seems to demonstrate that they valued the care that the institution provided. Some may have had sufficient funds to consult a physician or surgeon privately but, given the lack of direct evidence about the economic condition of Spaniards in the hospital population, this is mere speculation. Nonetheless, one can assume that the Gazeta de Guatemala which publicized both medical advances and availability of new techniques had some impact on the way hospitals were viewed by the elite. Upper class Spaniards were involved with the daily management of the city and its premier institutions. As a matter of course they met the physicians and surgeons of the hospital who also sat on the various administrative boards of the capital. Certainly, with the advent of an Enlightened secular administration at San Juan de Dios, Spaniards had good reason to go there for treatment.

A further refinement of the ethnic analysis is provided by examining the racial composition of the hospital's population in terms of gender (see Table 3). The most significant comparison involves Spanish and mestizo gender ratios. The similarity between the percentages of Spanish and mestizo males lends credence to the supposition that upward racial mobility was possible, at least within the upper echelons of Guatemalan society. Indeed, although these two groups of males were rather similar the equivalent female groups were very different. It remained difficult for anyone other than a Spanish woman to declare herself as such. The likelihood is that brothers of mestizas were passing themselves off as Spanish.

Race and gender are major elements in social differentiation. Another is marriage. It is particularly interesting to compare the marital status of the hospital population with that of the city as a whole (see Graph 3).²⁸

They are quite similar, with the exception of the widowed who made up a greater percentage of hospital admissions than of city residents.²⁹ If widowed status is considered in terms of gender the differences are even more striking (see Table 4 and Graphs 4 and 5). Indeed, widowers are found more than twice as frequently in hospital than in the city as a whole, while the contrast is far less marked in the case of widows.

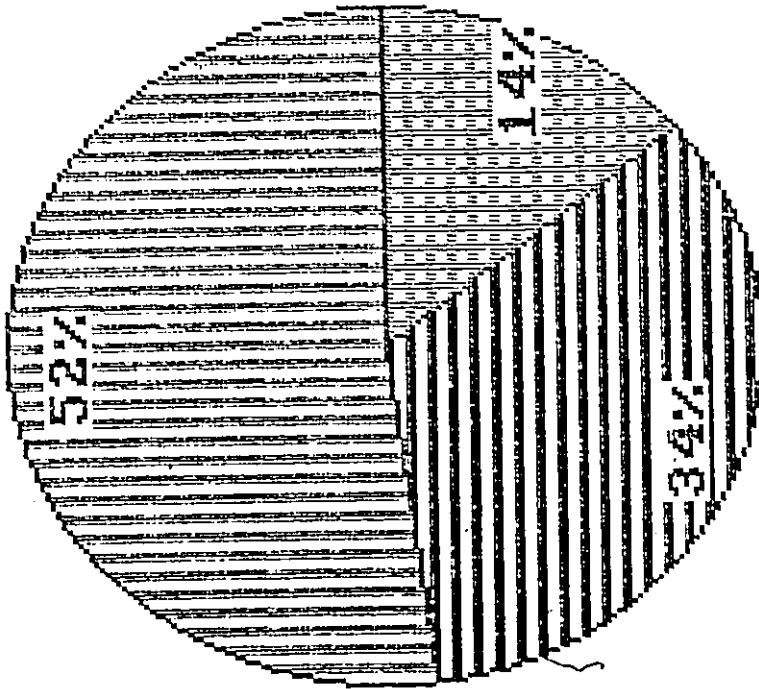
Graph 3: Marital Status of Patients vs. City Population



Graph
4A:

Males in Hospital

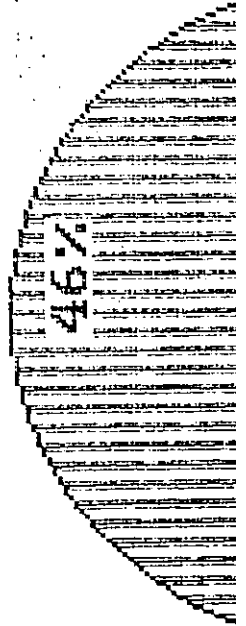
Status
Single
Married
Widowed



Graph
4B:

Males in City

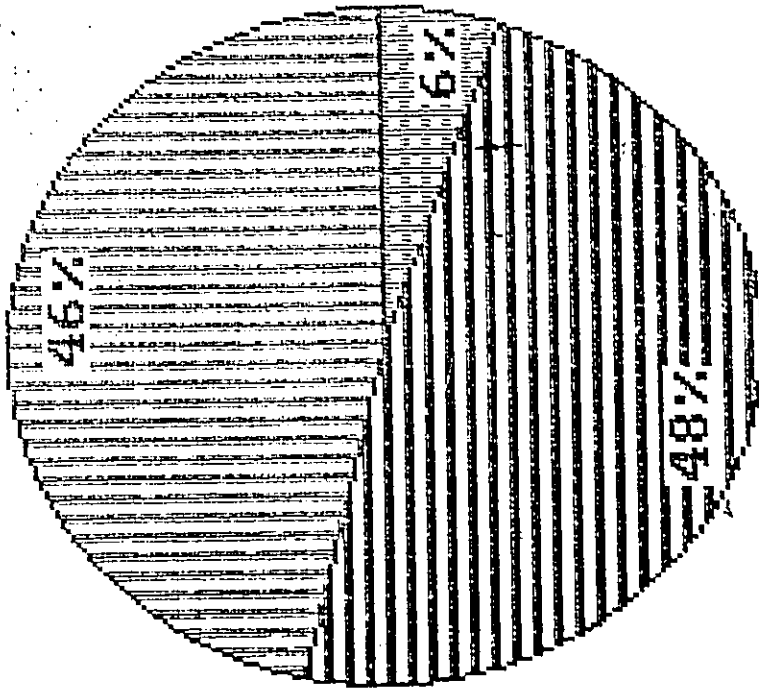
Status
Single
Married
Widowed



Graph
4B:

Males in City

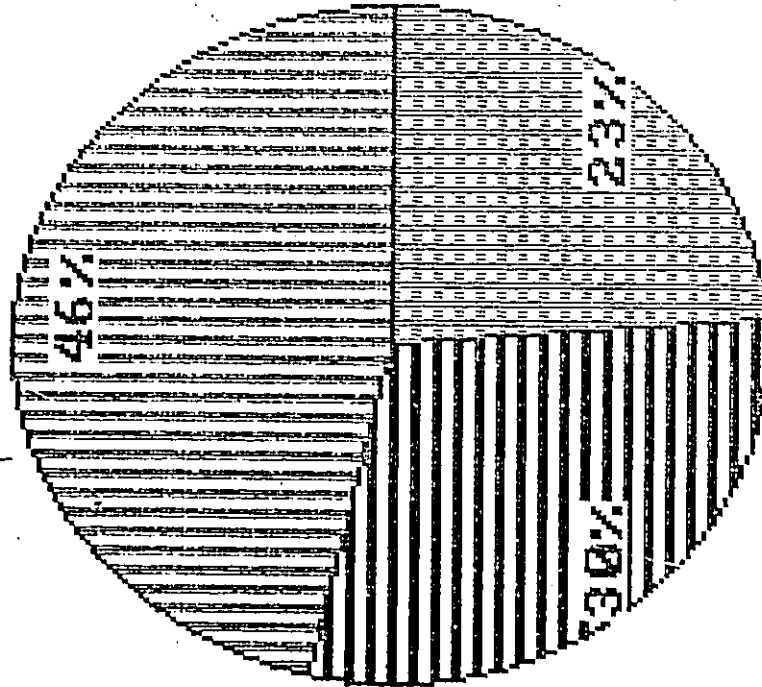
Status
Single
Married
Widowed



Graph 5A:

Females in Hospital

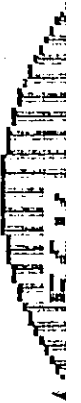
Status
Single
Married
Widowed



Graph 5B:

Females in City

Status
Single
Married
Widowed



Females in City

Graph 5B:

Status
Single
Married
Widowed

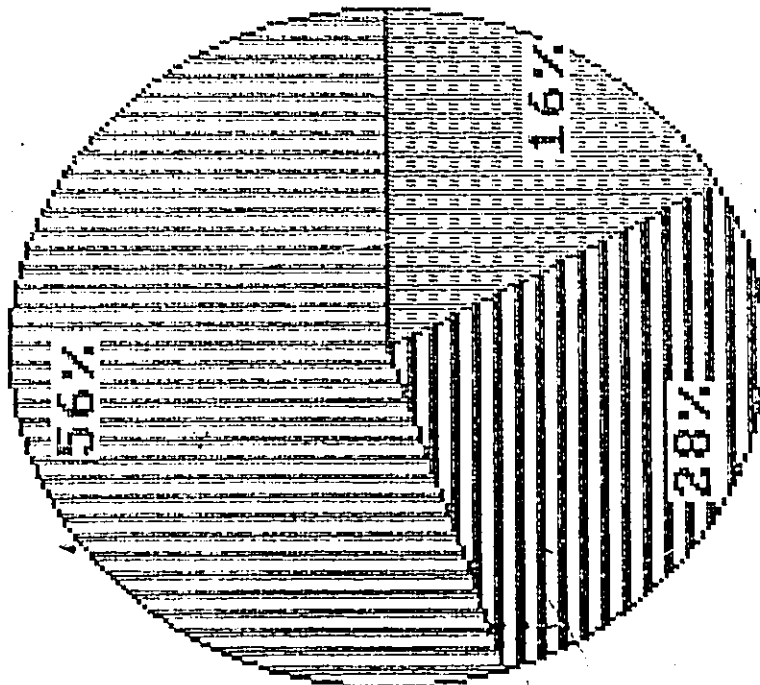


Table 4: Marital Status of Patients(1788-1808) and Barrio
Population (1796) (in %)

	Male		Female	
	Hospital	Barrio	Hospital	Barrio
Single	52.2	45.9	46.3	55.6
Married	34.1	48.4	30.3	28.0
Widowed	13.7	5.7	23.4	16.4

Source: The 1796 'barrio' figures are taken from Langenberg, p. 118. It is assumed that, as the 'barrio' figures for 1824 are representative of the total city population for that year, the same holds true for 1796 where no city figures are available.

N.B. These figures are the basis for Graphs 4A, 4B, 5A, and 5B and include only those persons fourteen years and over.

Single males entered hospital more frequently than one might have expected. This is no doubt related to the immigration of unattached men into a city where they were less likely to have family that could care for them. It may also be due in part to their high propensity to suffer injury in a capital under construction. Single females on the other hand, are under-represented, probably because of their traditional dependence on male relations and on employers. Unattached women often lived within a family context and were thus likely to receive some level of immediate attention in the event of illness.

Similarly, married males were also under-represented. Such men would look to their wives and children for care. There are more married women in the hospital than one might expect given the lack of obstetrical services (see Graph 5). Indeed, they are

present in San Juan de Dios in proportion to their demographic weight in the city population, the only marital status/gender group to show this characteristic. This is most unusual given prevailing social values.

One cannot not discount the injury factor as a logical explanation for the high number of admissions, especially as regards single men. Those with traumatic wounds represented nearly 19% of the cases sampled.³⁰ Of those, 40% were single men. It is unclear whether the hospital saw itself as a trauma care center but those with injuries did stay a shorter time than other surgical patients. Thirty-one per cent of the injured, as opposed to 17% of other surgical cases, left hospital within seven days.³¹ Only 5% of those with injuries were hospitalized for protracted periods (over seven weeks) compared with 17% in the other group.

If one examines marital status by gender in terms of race an even more refined analysis emerges (see Tables 5 and 6).³² Single mulatos were the largest group of men in the hospital, followed by single Indians. In addition, half of the widowers were Indian, and a third were mulatos. Unattached males of lower status racial stock were very prominent in the hospital population.

Table 5: Marital Status of Males by Race, 1788-1808

Row Pct Col Pct Tot Pct	Single	Married	Widowed	Row Tot
Spanish	57.6	32.7	9.7	11.7
	12.5	11.7	8.5	
	6.7	3.8	1.1	
Mestizo	57.4	31.4	11.2	10.1
	10.8	9.7	8.5	
	5.8	3.2	1.1	
Mulato	59.2	31.2	9.5	44.6
	48.9	42.6	32.1	
	26.4	13.9	4.3	
Indio	44.9	35.1	20.0	33.6
	27.9	36.0	50.8	
	15.1	11.8	6.7	
Column Total	54.0	32.7	13.2	100.0

Chi Square= 49.53244 with 6 degrees of freedom
Significance= 0.0000

The picture for women is less clearly marked, but is nonetheless substantially the same. Single mulatas were by far the most numerous females, with their married counterparts and single Indians as the next two largest groups. Again, two-fifths of the widows were Indians, and over a third were mulatas. Strangely, mestizas, like mestizos, were almost evenly distributed between the three marital status groups.

Table 6: Marital Status of Females by Race, 1788-1808

Row Pct Col Pct Tot Pct	Single	Married	Widowed	Row Tot
Spanish	49.4 8.1 1.9	23.6 6.4 3.9	27.0 9.5 2.1	7.9
Mestiza	50.6 14.7 4.0	28.5 13.8 7.1	20.9 13.0 2.9	14.1
Mulata	52.7 50.1 24.2	29.5 46.5 13.5	17.8 36.4 8.2	45.9
India	40.8 27.1 13.1	30.3 33.3 9.7	28.9 41.1 9.3	32.1
Column Total	48.4	29.1	22.5	100.0

Chi Square= 20.06018 with 6 degrees of freedom.
Significance= 0.0027

Another interesting element is that of age. The population of Guatemala City was relatively young, whereas that of the hospital was distinctly more mature. The average age of the patients on admission was thirty-three. The youngest to be admitted was four years old, the oldest, ninety-eight. Many males and females were between twenty and twenty-four and thirty and thirty-four years of age on admission, as the majority of cases fell into the fifteen to forty-four year age group (see Figures 3, 4 and Appendix Table 4).

Figure 3: Population Pyramid Representing Hospital Patients (N)

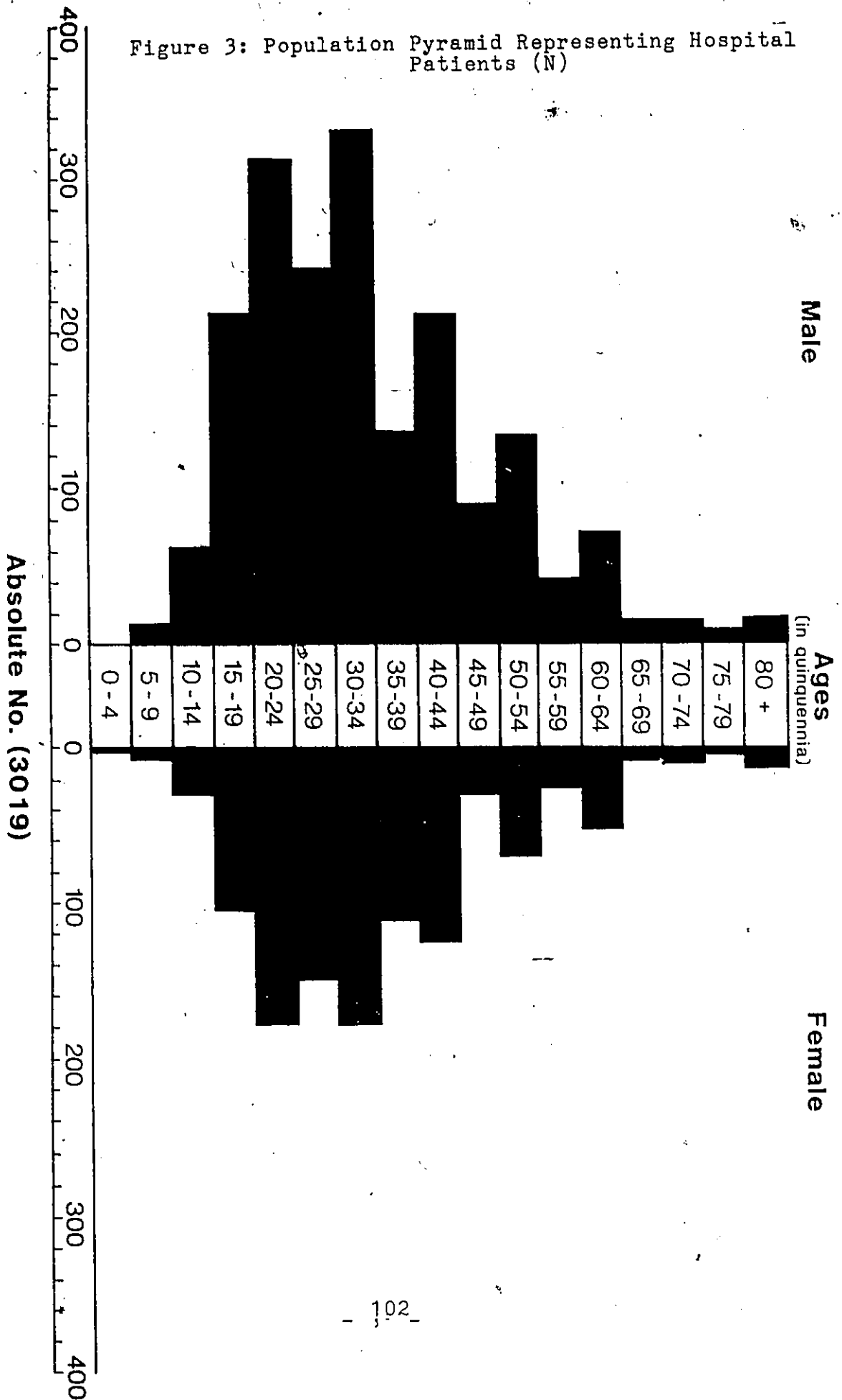
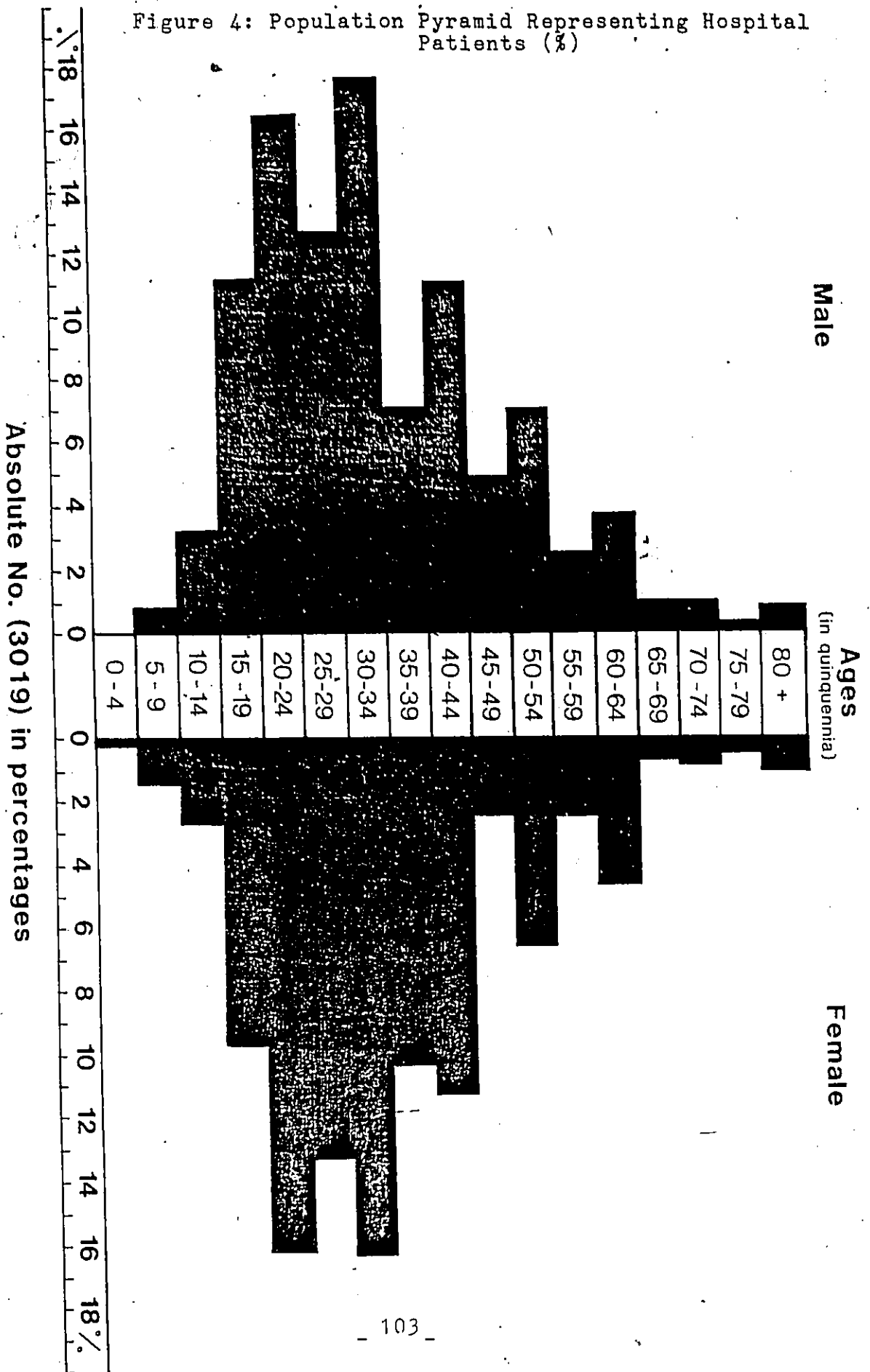


Figure 4: Population Pyramid Representing Hospital Patients (%)



The most common age reported was thirty years, and there are clear clusters at the decade marks. In an area where many were illiterate and would not have known their precise ages, it is not surprising that large numbers appear at the demarcations for twenty, thirty, forty and fifty years. A cursory glance at a population pyramid for the sample population over the twenty-one year period confirms the above.

For the men, anyway, that particular pattern appeared to hold true at different intervals during the period. By 1805, the hospital patients as a group were beginning to be represented in the fifty-plus category, an indication of the broadening of the patient base. Over the years, the women deviated only slightly from the norm established by their male counterparts. At various stages, older women outnumbered elderly males although the final figures indicate that both sexes in all age groups were present in the hospital. In the final year of the study, the majority of both male and female patients were between the ages of twenty-five and twenty-nine (see Appendix Table 5).

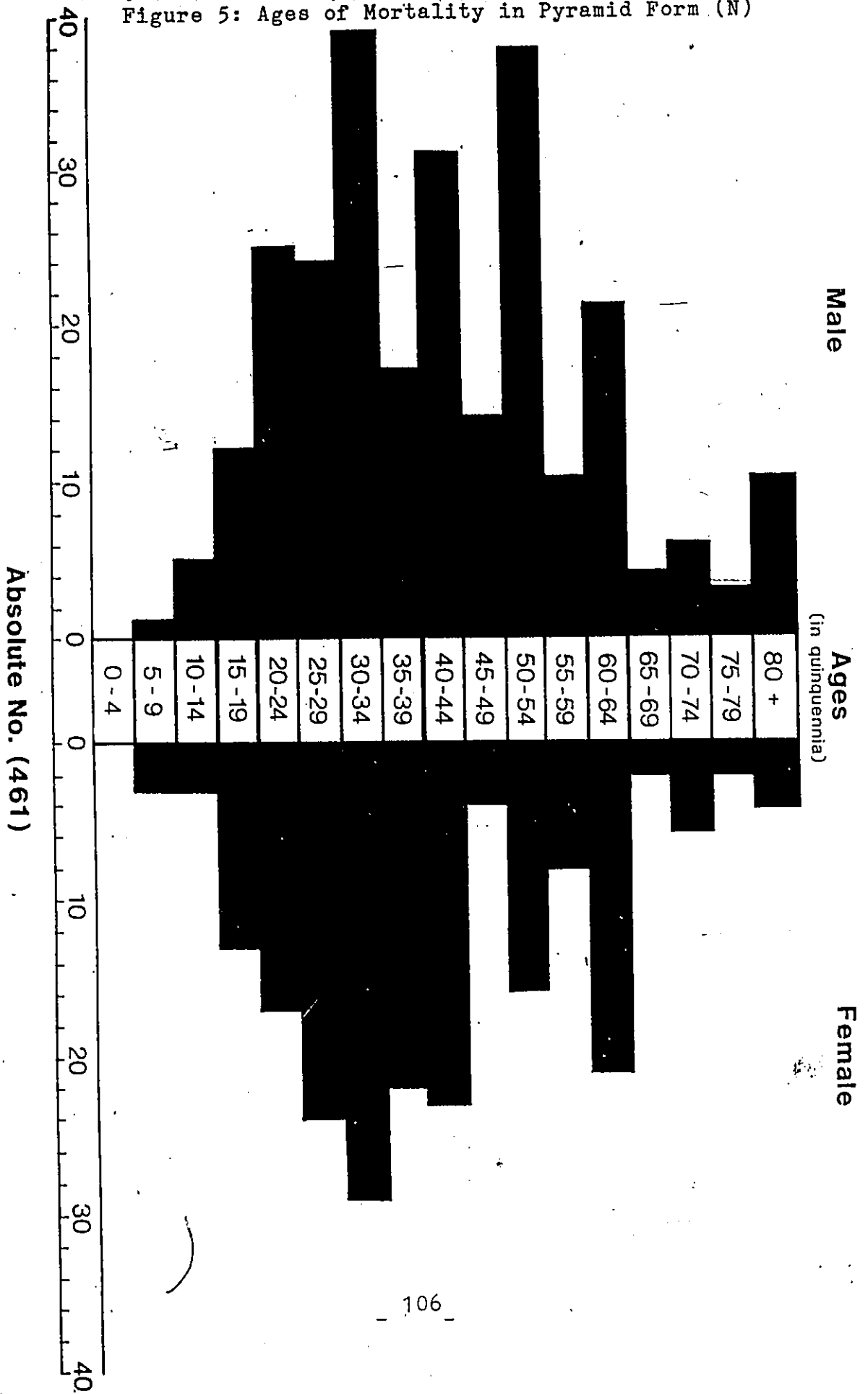
As indicated, the city population was younger than that of the hospital. In 1796, 26% was between four and thirteen years of age.³³ A further 36% of the inhabitants were between fourteen and thirty-three.³⁴ Thus the city's youngest elements were seriously under-represented in the hospital. Those between four and thirteen only accounted for 3.9% of the patient population. Fifty-six per

cent of the patients in the hospital, however, were between fifteen and thirty-four years old.³⁵

Those who met their demise in the Hospital de San Juan de Dios were easily distinguished from those who were ultimately discharged. Of course, it was impossible to gauge the condition of this latter group who could easily have died shortly after their release from hospital. In some cases the information regarding a death could be corroborated by a search of the libros de fallecimientos, or lists of deaths, at the back of each of the libros de enfermos. Of the admissions considered in the sample, four hundred and eighty-seven, or 15.6% of the total sample population, died in hospital. In the latter years, 1802-1808, the death rate was 13.9%.³⁶ From 1792-1796, however, it was 15.8%, in keeping with figures released for those years by José Flores in the Gazeta de Guatemala. The published report showed that 15.3% of the hospital population had died.³⁷ That same issue of the Gazeta also indicated ratios of deaths by race. The deaths in the sample population for the entire period are representative of these ratios.³⁸

In the Guatemala City hospital, men died at a slightly higher average age than the women (see Figure 5 and Appendix Table 6).³⁹ These figures, however, are deceiving. If one looks at the breakdown of mortality by race and gender, it becomes obvious that Indian males died at a much higher rate than other males. Also

Figure 5: Ages of Mortality in Pyramid Form (N)



among those who died, mulatas represent a higher proportion of females than mulatos do of males (see Table 7). The death rate of male mulatos stayed constant even though they made up a substantially greater portion of the hospital population in the latter years of the study.⁴⁰ The later years also produced a 5% decrease in the number of Spanish deaths.

Table 7: Mortality by Gender and Race, 1788-1808
(Distribution of all Deaths in N and %)

Race	Males		Females	
	N	%	N	%
Spanish	27	10.5	14	6.8
Mestizo	21	8.1	20	9.7
Mulato	91	35.3	88	42.7
Indio	119	46.1	84	40.8
Total	258	100.00	206	100.00

While women may not have died in hospital as soon as men (see Tables 8 and 9), they died at a substantially higher rate.⁴¹ There is one exception. The mestizas tended to die in near equal proportions to their male counterparts. This in itself is an interesting statistic and one might offer a class explanation for the phenomenon. As members of a flourishing middle sector, the mestiza element may, in fact, have been the most fortunate females in the society in social terms. Mestizas on the whole would have been the operators of the many small shops, and as such, might have had more independence than their Spanish counterparts when it came to decision-making. It might be posited that, as a group,

this class would be healthier than the rest of the mixed blood population.

Table 8: Length of Time Patients Spent in Hospital Prior to Death

Time in Hospital	Males		Females	
	N	%	N	%
1 to 7 days	128	47.2	89	41.8
8 to 14 days	50	18.5	46	21.6
15 to 21 days	31	11.4	18	8.4
22 to 28 days	22	8.1	15	7.0
29 to 35 days	16	5.9	12	5.6
36 to 42 days	3	1.1	10	4.7
43 to 49 days	3	1.1	5	2.4
50+ days	18	6.6	18	8.4
Total	271	99.9	213	99.9

Table 9: Mortality by Race and Gender, 1788-1808
 (% of Admissions who Died in each Category)

Race/Gender	%	Average % per Race
Spanish Males	12%	13.3%
Spanish Females	16%	
Spaniards		
Mestizo Males	11%	11.8%
Mestizo Females	12.5%	
Mestizos		
Mulato Males	11%	13.2%
Mulato Females	17%	
Mulatos		
Indian Males	19%	20.4%
Indian Females	23%	
Indians		

That said, the tendency to die in hospital does appear to be inversely related to the class and race of the patients: the higher the class, the less the likelihood of dying (see Table 9).

*This appears to be contradicted by the relatively high percentage of Spanish deaths. But, in fact, the latter can be accounted for almost entirely by the high death rate of Spanish women, one of the major anomalies in the picture. The high death rate among Indians is probably due to their living conditions. Working away from home and without the traditional support systems as well as being employed under conditions of forced labor after forced relocation, it is not surprising that they would die at the rates the sample suggests.⁴²

The junta responsible for the reorganization of the record keeping system at the turn of the century also established different priorities as regards the description of the patients' origins. Until 1802, in many cases, the entries specifically delineated the place of birth of each patient.⁴³ Once the administrative reforms were instituted, the emphasis moved from "place of birth" to "place of residence"⁴⁴ After 1803, many of the notations of origin refer to residence, or citizenship, and birthplace is not mentioned. In only one case is there a combination of birthplace and residence status. In May 1805, a fourteen year old Indian girl was admitted with a high fever. She stated that she had been born in Antigua Guatemala but now resided in the new capital.⁴⁵ Naturally, many of the patients came from the area around the nueva ciudad even though the first formal notation to that effect does not appear until 1794, sixteen years after its opening. More than twelve hundred were either from the

old capital or the new and the majority of the others originally came from areas to the west and south-west of the city. There were people presenting themselves at the hospital who came from the outer reaches of the kingdom: El Salvador, Honduras, Nicaragua, Chiapas (see Appendix Table 7). Farther afield, twenty-eight admissions from Mexico, nine from other American locations such as Lima and Santiago de Chile, complete the list for Spanish America. Over thirty Spaniards, ie: from Spain, and slaves from Guinea and Jamaica were also identified in the sample. Identification of slave origins, however, was often unsatisfactory. Although three black slaves were brought to the hospital by the foremen of the haciendas on which they worked no further information was provided. The most difficult locations to situate adequately were those of the many Indian communities scattered throughout the countryside.⁴⁶ It made any rational analysis for regional illness virtually impossible.

Conclusion

The most striking feature of the admission figures is the continual rise in the number of patients entering the hospital, particularly from 1803 onwards. This phenomenon was clearly due to an increasing willingness on the part of the citizenry to be hospitalized. Year by year an ever greater proportion of the sick were prepared to place themselves in the hands of the physicians and surgeons of San Juan de Dios. It is particularly interesting

that this change was most marked for women, who had previously been grossly under-represented.

The idea that Guatemalans became more and more willing to enter hospital may seem problematical, but no alternative explanation is viable. There was no direct relationship between hospital admission and the number of beds available, nor could there be where administrators were prepared to admit more than one patient to a bed. Similarly, as epidemics were most significant in the 1790s, and demographic and economic conditions were largely stagnant, the increased admissions from 1803 have to be seen as an indication that the capital's population was becoming more willing to avail itself of health care opportunities. The Hospital de San Juan de Dios, with its connection to the University of San Carlos was truly becoming a general hospital in its medical and professional functions.

Changing attitudes toward hospitalization may have been responsible for the increasing number of patients who presented themselves for treatment. Indeed, the success of the institution was probably related to the impact of the Enlightenment on Guatemalan public opinion. The enthusiasm for the new knowledge which characterized the capital's small but influential elite, led its members to support medical advances, encourage admissions, and (in some cases) even to serve the hospital directly as officers of its secular administration. This example, teamed with the obvious

fact that San Juan de Dios was dedicated to public health needs rather than to social control, could not help but break down resistance to hospitalization. The therapeutic nature of the institution encouraged people to attend who would have otherwise stayed away. And people did get well enough for discharge. Only the most timorous would see admission to this hospital as a last resort.

In summary, those who suffered from illness in Guatemala City received care in a facility which was indeed a general hospital not only in terms of conditions treated but in catering to all sectors of society save for the very young. Indeed, the composition of the patient body reflected the characteristics of the city's citizens as much as the circumstances of medical care in that era. This is evident if one compares San Juan de Dios with other hospitals.

In certain regards, of course, the Guatemalan hospital was fairly "normal". Like the Charité in Berlin and the Hôtel-Dieu in Quebec City, it was involved primarily in the treatment of adults aged twenty to forty. Admissions to the hospital were mostly comprised of individuals over fifteen and under forty-four. Even with similar age groups, however, the hospital experience could be rather different. In general, the Guatemalans spent less time in hospital. They stayed an average of three weeks compared to the

Berlin patients who usually spent one to two months in the Charité.⁴⁷

In other respects, however, the experience of San Juan de Dios was very different from what one encountered elsewhere. While urban centers like Havana, Cartagena and Santo Domingo were garrison towns, similar to Quebec City, Guatemala's capital was not. Instead, it resembled such other Spanish colonial cities as Santa Fé de Bogotá and Guadalajara. Any fighting which occurred took place to the east on the Mosquito coast, far removed from the capital. Thus, soldiers were present in San Juan de Dios in very limited numbers.⁴⁸ This is in contrast to the Hôtel-Dieu in Quebec City where the military, which was especially important in war time, accounted for 32.5% of the hospital's male population.⁴⁹

The most striking area of difference, however, was that of ethnicity. Unlike eighteenth century hospitals outside the Latin American milieu, San Juan de Dios catered to a population differentiated on the basis of race. Moreover, unlike other Spanish American towns, Guatemala City did not maintain racially separate hospital facilities. For this reason, it is difficult to compare Guatemala's hospital statistics to those of the four hospitals, each catering to a specific racial group, studied by Chase in Mexico City. From early times, Guatemalans strove to create a truly multi-racial society, albeit within the context of inequality and oppression. Such local conditions were reflected in

the structure of the hospital population. Thus, the patient body was racially diverse but those in the lower racial echelons were more likely to die than others. Spanish women, who also suffered from a relatively high death rate, were the exception to the positive relationship between color and mortality.

One of the more interesting aspects of this study is the over-abundance of females in the city and their somewhat lower numbers in hospital. While no explanation is offered in the literature for the phenomenon, Christopher Lutz indicates that this was also the case in the old capital where women comprised 62% of the adult population.⁵⁰ Women died at a consistently higher rate than men in the hospital but, as the city's death rates are unknown, no comparison is possible. Overall, every ninth admission of men, every sixth admission of women ended in death. This is in contrast to Imhof's Berlin hospital population where women died less frequently than their male counterparts.⁵¹

As expected, the great majority of those using the hospital facilities were Indian or coloured. The former, in particular, were present in the hospital to a much greater degree than in the general population of the city. Despite this fact the proportion of whites among the patients was not negligible, and their numbers even included some who were considered noble. Admittedly, racial categorizations must be taken as relative rather than absolute. As Lutz points out, "at the beginning of the eighteenth century,

there was considerable opportunity for passing upward from one racial category to another."⁵² The hospital statistics certainly indicate that this was the case for mestizo males. Nonetheless, the relationship between lower social status and non-white reputation is well-established. That any significant proportion of Spaniards should have attended the hospital clearly indicates that it did not simply cater to paupers.

Despite the above, it must be admitted that social factors were important, though not determinant, for hospital entry. The disproportionate presence of Indians and widows is significant in this regard. Nonetheless, one must keep in mind that such phenomena are not unknown in the modern world. They do not vitiate the vision of the Hospital de San Juan de Dios as a care oriented center for the whole population.

NOTES

1. See Imhof's, "The Hospital in the 18th Century". The major difference between Imhof's admission records and my own is that mine do not contain occupational information. On the other hand, in some respects, I was more fortunate than he in that my documentation does exist in the original. See p. 459. Also see the works mentioned previously by Rousseau on the Hôtel-Dieu in Quebec City, Risse on Edinburgh's Royal Infirmary and John Woodward on England's voluntary hospitals.

2. Admission information on the injured is unavailable for males between March 18 and June 16, 1795 and from March 31 to December 31 of the same year for females. See Libro de enfermos del año 1795 on MCM Microfilm Reels 573-A and 577-A, respectively.

3. This was, in fact, an administrative exercise. The injured came in at the same rate whether they were listed in the surgical or heridos registers.

4. This diligence on the part of the hospital administrators provided welcome respite from the disorganization of the late 1790s and simplified the task of sampling for the later years of the study.

5. Military patients were excluded from the count because no adequate study of the eighteenth century Guatemalan military exists. This made it impossible to know what proportion of the soldiers were sent to hospital or how characteristic these admissions were of military personnel on the whole.

6. Juarros, Statistical and Commercial History, p. 497. See also Langenberg, p. 104.

7. Similar conditions existed elsewhere in Spanish America (see Chase) and Europe. In Montpellier, France, for example, officials were equally concerned about providing medical care for the poor and needy. See Colin Jones, Charity and 'Bienfaisance': The Treatment of the Poor in the Montpellier Region, 1740-1815 (Cambridge, 1983).

8. Langenberg, p.104.

9. Langenberg, p.104. The figures relevant to these neighborhoods for 1805 and 1824 are accurate reflections of the city population in the same years. Where possible, 1796 'barrio' statistics will be used in the same fashion for comparative purposes.

10. Langenberg, p. 104. Females made up 60.7% of the city's population in 1824.

11. This decrease is due primarily to a drop in the Spaniards' death rate from 17% to 12.6% in the years mentioned. In the earlier period, 42% of the deaths were women. Later, that figure increased to 48%.

12. Encyclopedia Britannica 8 (1984), pp. 453-455 and The 1986 South American Handbook (Bath, England, 1985), p. 1014.

13. This graph is based on the monthly totals from all the years in the study: January, 3258; February, 2998; March, 3403; April, 3440; May, 3453; June, 3384; July, 3692; August, 3629; September, 3266; October, 3394; November, 3128; December, 3020.

14. A total of 20,223 were admitted in the rainy season and 18,294 in the dry.

15. Figures for January through April, 1788 and November and December, 1808 were excluded because they were not representative of complete seasons. The months of the rainy season of 1788 were not used as figures from 1808 were more in keeping with the overall average.

16. The four most common reasons for admission in the rainy season were: fevers (27%), traumatic injury (17%), gastrointestinal complaints (12%) and inflammations/surgical problems (12%). In the dry months, close to 45% of patients entered hospital with fevers (24%) and traumatic injury (20%).

17. Rousseau, "Hôpital et société en Nouvelle-France," p. 33; Imhof, "Analysis of Eighteenth-Century Causes of Death," p. 3-5, 16; Risse, Hospital life, p. 143-146.

18. Lutz, p. 553 and John Preston Moore, The Cabildo in Peru under the Bourbons (Durham, North Carolina, 1966), p. 66. See also Wortman, Government and Society, p. 179.

19. Once admitted, however, some concern was shown for the state of their souls. Patients were to attend confession within three days of admission and they were not to indulge in swearing or gambling while inmates of the hospital. See Directório ..., decree 4.

✓ 20. See MCM 577-A, Libro de enfermos del año 1794. She had been sent by the tribunal and her name appeared in the hospital register of that year because she occupied a hospital bed.

21. Callahan, "Corporate Charity," p. 175. The hermandad del refugio in Madrid organized that city's first ambulance service. In general, however, it was more involved with the provision of food and shelter to the capital's indigents and poor.

22. The patients stayed anywhere from one to six hundred and thirteen days although, as described, they tended toward the lower figure.

23. There were 3121 cases randomly selected for the sample.

24. One must remember that one of the early recommendations for the new hospital in Guatemala City included a provision for the care of sick prisoners. These accommodations were relatively common in Mexico City, for example, where the Hospital General de San Andrés had erected a guarded ward to care for those prisoners who required hospitalization. See Chase, p. 15 and 43.

25. It was possible to ascertain the race of the patient in 2997 cases of the 3121.

26. The 992 Indians admitted made up thirty-three per cent of the patient population.

27. None were admitted before that date.

28. Langenberg, p. 118. The 1796 'barrio' figures are used here. As for the patients, the dossiers of five men and twenty-one women did not report on marital status. Also, the legal age of consent for marriage was 14 years, so only those of that age or older in the city and the hospital are included in the analysis.

29. They made up 13% of the city population and 17% of the hospital population.

30. Diagnoses were given for 2995 of the 3121 patients in the sample. Of these, 557 were admitted with injuries.

31. 74.5% of the injury cases were discharged within three weeks. Only 54.5% of the surgical patients could expect to leave hospital in that time.

32. This is especially true as regards the males. All patients in the sample are included.

33. Langenberg, p. 111. This figure comes from the 1796 'barrio' numbers. In 1824, the age group represented 24% of the city's population.

34. Langenberg, p. 111. Those in the 14-23 group were 18.9% (1796) and 19.9% (1824) of the city's population. The 24-33 age group accounted for 17% and 19.4% of the population in the stated years.

35. It is understandable why Langenberg chose to exclude the younger group in her estimations of marital status. Her 'singles' category would certainly have been lop-sided with respect to the others. Also, analyzing the entire sample population in light of those totals would have resulted in a comparison with a group that was far too young.

36. This was still somewhat higher than the nine to twelve per cent death rate calculated by Chase for some Mexico City hospitals in the same period. See Chase, p. 202.

37. Gazeta de Guatemala 31 (February 27, 1797), p. 17.

38. One in nine Spaniards, one in nine mulattos (this is both mestizos and mulattos) and one in five Indians died.

39. The average age at death was thirty-nine years for females and forty-one years for males. Just over fifty-six per cent of the recorded deaths were men, more than two-fifths were women.

40. In 1792-1796, they are 37% of the hospital population, in 1802-1808 they make up 50%.

41. If one compares the number of deaths in each racial group determined by gender to the total overall admissions for that group in the sample, one sees this quite clearly.

42. In fact, these rates are substantiated by the Gazeta de Guatemala's report of 27 February 1797, which claimed that one out of every five Indians admitted between 1792 and 1796 had died.

43. In some instances the description was not peculiarly precise but the notation still reflected the importance of one's true origins.

44. The latter was distinguished from the former by vecino de ... preceding the town, village, barrio or whatever. The change might have been due to the need for more accurate census data for taxation or conscription purposes or to clarify the patient's status in the new city. The massive population shift which occurred as the capital was being built also gave rise to questions of residency. According to Miles Wortman (Government and Society, p. 179), there was "a need for draft labor for urban construction, for the transportation of construction materials and food from areas as far away as Chiapas. In the area surrounding the capital, most of these workers supplied food." This whole episode is particularly significant because the system of repartimiento, or labor draft, was being phased out in Spanish America.

45. See MCM microfilm reel 577-A, Libro de enfermos del año 1805.

46. They accounted for seven percent of the total.

47. Imhof, "The Hospital in the 18th Century," p. 463.

48. According to the published report in the Gazeta, they made up 6.8% of the hospital population between 1792 and 1796.

49. Rousseau, "Hôpital et société en Nouvelle-France," p. 34.

50. Lutz, p. 22. No complete population statistics exist, but some estimates of the city's size circa 1770 indicate adult females outnumbering males 6299 to 3789.

51. Imhof, "The Hospital in the Eighteenth Century," p. 463.

52. Lutz, p. 26.

Chapter III

Patients and Disease

Disease Classifications and Comments

The Spanish conquerors introduced Old World diseases to Mesoamerica. The most devastating of these was smallpox and its effect on the Amerindian population there is well-documented. Other illnesses, such as influenza, measles, diphtheria, mumps and tuberculosis, were also introduced by the colonizers. Some, however, such as typhus, malaria, syphilis, pneumonia and dysentery were already in Guatemala when the Spaniards arrived.¹

Over four hundred reasons for admission are listed in the patient registers of the Hospital de San Juan de Dios. In some cases the notations are very precise while in others they are merely suggestive. Thus, when Juan Santos came to hospital with a broken right arm, there was no doubt as to his problem. On the other hand, María Calderón suffered from chest pains, symptomatic of any number of illnesses. The great number of different "diagnoses" and the variation in precision from one to another make it difficult to interpret the documentation. Verification of eighteenth-century terminology constitutes a major and contentious problem in a study of this nature, as demonstrated by the controversy over Jean-Pierre Peter's methodology.² On the whole, "translating" these diseases into modern terms seems both hazardous and unwise. Consequently, following the example of

Guenter Risse, the diseases under scrutiny here were grouped into categories arranged by bodily systems.³

To this end, fifteen disease categories were created for analysis: infectious diseases, traumatic conditions, surgical infections, diseases of the digestive tract, genitourinary diseases, respiratory diseases, circulatory disorders, miscellaneous medical/surgical conditions, diseases of the skin, musculoskeletal disorders, tumors and cancers, neurological and mental diseases, eye and ear problems, indeterminable, and unknown (see Appendix Table 8 for a listing of the diagnoses in each category).⁴

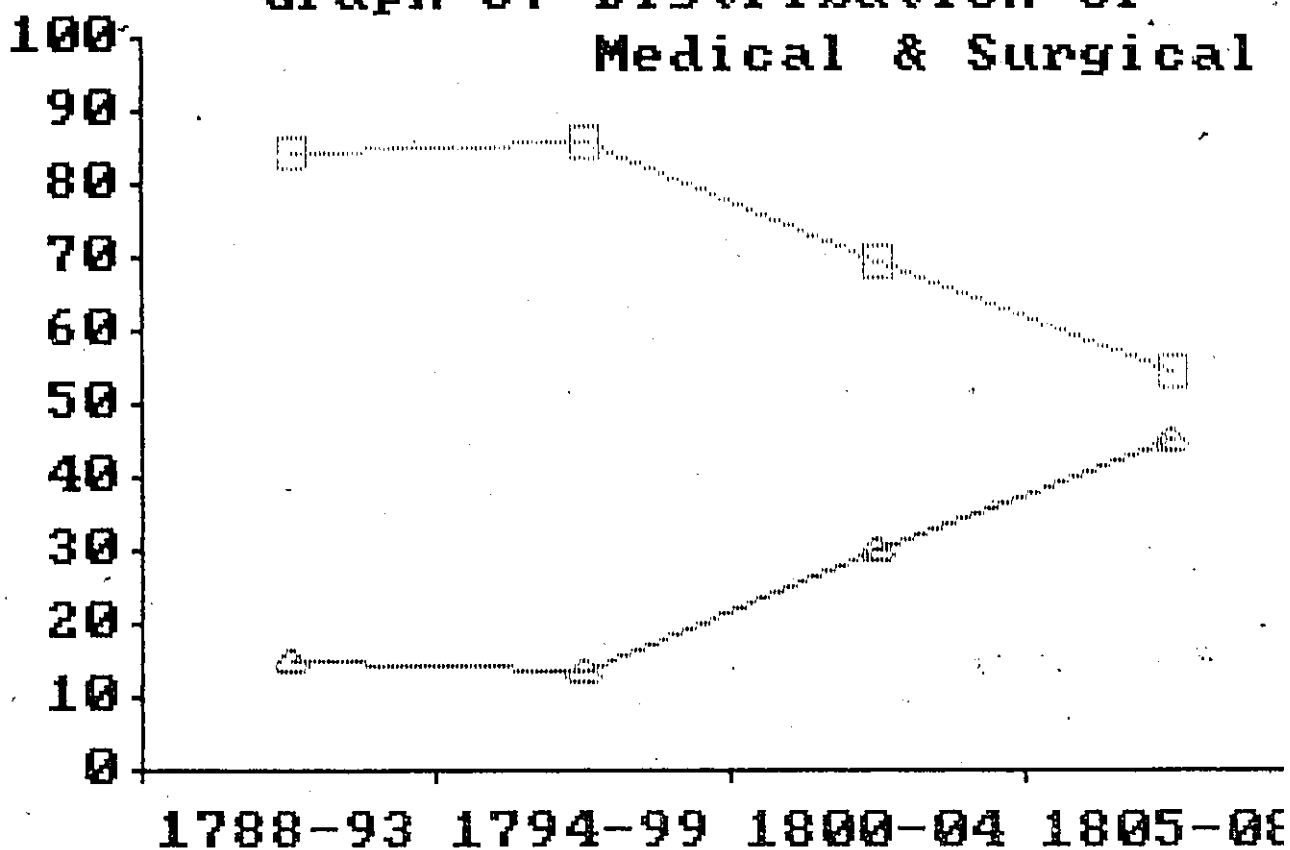
No comparison is possible between diseases suffered by the population outside the hospital and those of the patients inside. Before 1814, there was no formal organization which collected statistics on the health of the general population.⁵ Nor are physicians' private or hospital casebooks, such as those used by Michael MacDonald and Risse, readily available. Nonetheless the documentation permits an overview of the complaints with which Guatemalans of the late eighteenth and early nineteenth centuries were admitted to hospital. At the very least the documentation is suggestive of health conditions in the capital city of the kingdom.

The admission books not only offer data for quantitative analysis of medical conditions but, supplemented by other documentation, provide social data about the patients. As shown in the preceding chapter, this can also be quantified. If personal histories are treated qualitatively, however, they add a human dimension to the study of hospitalization. As such they illustrate the diversity of diseases in the sample, even as they convey the social values and racial disparities of Guatemalan society at the close of the colonial period.

Distribution of Diseases

Applying the standard distinction between cases referred to surgeons or physicians,⁶ between 1788 and 1808, 72.9% of all patients who entered hospital suffered from medical problems and 27.1% were admitted for surgical treatment. Over the entire period a steady alteration in this ratio resulted in a more even distribution of medical and surgical cases (see Graph 6).

Graph 6: Distribution of
Medical & Surgical



Type of Care
□ Medical △ Surgical

From 1788-1793, medical complaints were responsible for 85% of admissions compared to 55% in the final four years. Hence, surgical admissions tripled over the twenty year period. This dramatic increase, especially after 1800, was due in part to heightened interest in surgery and the opening of the surgical college in 1805. As such, this alteration in ratio bears witness to the importance of the Enlightenment in Central America. Interestingly, the evidence shows an overwhelming tendency for males rather than females to have surgical problems.⁷ As will be shown this was related to a greater incidence of traumatic care for that sector of the population.

The frequencies of the known reasons for admission are given in Table 10. One startling finding is that there appears to be very little difference in rank order between the diseases suffered by men and women. The most obvious discrepancy is, of course, the high incidence of traumatic injury among males as opposed to females (see Tables 11 and 12).

Those admitted with infectious diseases were the most numerous in the hospital. Within this category, patients with fevers and chills were the largest component and accounted for 16.8% of the total sample population. From the simple notation of fiebre to the more complex of high fevers combined with chest pains, headaches and/or chills, it is evident that the population in the city was exposed to many illnesses. Inevitably there were

occasional epidemics of smallpox and typhus. Admissions of patients with febrile complaints increased in 1792 and 1793, 1797 and 1802, years commonly associated with such outbreaks. As smallpox cases were isolated in other facilities none appear in the admission books of San Juan de Dios. Typhus, on the other hand, produced alterations in admissions. In the six years from 1794 through 1799, over 45% of those with typhus entered hospital:⁸

Table 10: Reasons for Admission of Patients in Sample, 1788-1808

Reason	N	% of total
Infectious diseases	751	25.1
Traumatic conditions	557	18.6
Surgical infections	318	10.6
Diseases of the digestive tract	312	10.4
Genitourinary diseases	271	9.0
Respiratory diseases	231	7.7
Circulatory disorders	170	5.7
Miscellaneous Med-Surg	111	3.7
Diseases of the skin	104	3.5
Musculoskeletal disorders	67	2.2
Tumors and cancers	52	1.7
Neurological and mental diseases	38	1.3
Eye and ear problems	13	.4
Total	2995	99.99

Table 11: Reasons for Admission of Men, 1788-1808

Reason	N	%	% of Total
Infectious diseases	437	23.2	14.6
Traumatic conditions	419	22.2	13.9
Surgical infections	206	10.9	6.9
Diseases of the digestive tract	186	9.8	6.2
Genitourinary diseases	176	9.3	5.9
Respiratory diseases	146	7.7	4.9
Circulatory disorders	86	4.5	2.9
Diseases of the skin	62	3.3	2.1
Miscellaneous Med-Surg	61	3.2	2.0
Musculoskeletal disorders	41	2.2	1.4
Tumors and cancers	38	2.0	1.3
Neurological/mental diseases	25	1.3	0.8
Eye and ear problems	4	0.2	0.1
Total	1887	99.8	63.0

Table 12: Reason for Admission of Women, 1788-1808

Reason	N	%	% of total
Infectious diseases	314	28.3	10.5
Traumatic conditions	138	12.5	4.6
Diseases of the digestive tract	126	11.4	4.2
Surgical infections	112	10.1	3.7
Genitourinary diseases	95	8.6	3.2
Respiratory diseases	85	7.7	2.8
Circulatory disorders	84	7.6	2.8
Miscellaneous Med-Surg	50	4.5	1.7
Diseases of the skin	42	3.8	1.4
Musculoskeletal disorders	26	2.3	0.9
Tumors and cancers	14	1.3	0.5
Neurological/mental diseases	13	1.2	0.4
Eye and ear problems	9	0.8	0.3
Total	1108	100.1	37.0

Communicable diseases have also been included in this category. Several expressions are used in the registers to describe diphtheria. On any occasion it might be known as angie or llagas en la garganta. People were also hospitalized with measles

and mumps. Hence, it is evident from the records that doctors in the late eighteenth century were familiar enough with certain infectious diseases to make consistent diagnoses.

Traumatic conditions such as injuries, wounds or accidents were the second most common reason for people of either sex to come to hospital. Women who suffered injuries of various kinds represented only 4.6% of the patient population. In contrast, 75% of those with injuries were males, the majority of whom were single. Although the actual location of the injury was not given in many cases, there was ample evidence that all parts of the body were affected. Those with head wounds, for example, represented 8% of admissions in this category. In a new city in full construction until well into the nineteenth century, work-related accidents were common, as were the injuries and blows one might suffer in an occasional dispute. In these cases, the hospital offered emergency care for legitimate needs.

'Surgical procedures and infections' is one of the more difficult categories to describe. Initially, those diseases originally found in the admission books of the surgical ward were included here. Some others, however, such as ulcers, were added because the treatment was ultimately surgical. Of course, abscesses, inflammations and burns are also listed. It is interesting to note that even though women underwent surgery less

frequently than men, these problems affected between 10-11% of both sexes.

Diseases of the digestive tract were slightly more prevalent in women than men. Stomach aches and intestinal problems, such as diarrhea, were the most common. It is natural to assume, however, that these symptoms were simply manifestations of more serious illnesses. The capital's poor water supply was most probably a contributing factor to the severity and prevalence of these symptoms and related diseases.⁹

The genitourinary diseases include illnesses which affected the sexual organs and urinary tract of both men and women. In this patient population, syphilis and its related llagas gálicas make up close to 80% of the category. In fact, this venereal disease was one of the most common diagnoses used in the libros. It was most prevalent amongst male adults between the ages of 20 and 24.¹⁰ Urinary tract infections, gout, anuria and polyuria were also treated. The latter might indicate the presence of diabetes in the population but this cannot be verified on the basis of such minimal numbers.

Nearly 8% of the hospital population suffered from respiratory problems. Pains in the side and chest accounted for close to 80% of these cases. Dolor de costado (side pain) was one of the most common diseases listed in the registers and accounted

for 22% of the deaths in this category. Its incidence was directly proportional to age, becoming more prevalent in those approaching middle age, between 50 and 69 years. Other terms such as pulmón, tisis and pleurítico were used interchangeably to describe similar respiratory conditions. Of course, chest pain (dolor del pecho), was also common to other conditions.

Circulatory problems accounted for slightly less than 6% of all admissions. Although conditions relating to hemorrhage were common, the largest group numerically had hidropesía or dropsy. The disease appears to have been present in many forms, including congestive heart failure and ascites, most likely due to cirrhosis. In 46% of the cases it was fatal. Most patients suffering from dropsy were discharged within three weeks of their admission. There was even a case of negra or polycythemia vera.¹¹ One can only imagine with horror what the poor woman suffering from the disease went through in the hospital. While this is only speculation, one would suspect that she received the accepted treatment of the era and underwent several phlebotomies and leechings. Incredibly she survived the ordeal, at least so as to be discharged.

Some of the medical and surgical ailments could not be readily classified into the existing structure so a miscellaneous category was created for them. Generalized aches and pains, totally undistinguishable by description, represented slightly

more than 70% of these admissions. Those suffering from old age were also included. Although obstetrical care was not generally available in the institution, one woman had surgery as a "result of pregnancy".

Skin diseases certainly existed in the capital. Several entries refer to them specifically. In the eighteenth century, however, many terms (which have since been defined more precisely) were used interchangeably to describe different symptoms of the same illness. For example, although there were separate institutions which cared for lepers, two patients were admitted to San Juan de Dios with lepra or leprosy. It is highly unlikely that this diagnosis was anything other than symptomatic. Physicians' knowledge of the disease and the stringent laws regarding isolation of its victims would prevent the admission of such a person to the general hospital.

Over 50% of patients in this category suffered from granulated closed ulcers and yaws. Erysipelas was present in lower numbers but there was no indication that the afflicted patients were kept isolated from the others. Even though the hospital staff was aware of some measures to prevent the spread of contagion, it is highly likely that knowledge was not so far advanced to enable them to understand the infectious nature of this disease.

Only 2.2% of the patient population suffered from musculoskeletal disorders. The majority of the complaints in this category were directly related to rheumatism and its effects. Thus, the most common diagnosis was dolor de huesos or bone pain. Patients with tumors and cancers were also in the minority. Only one was admitted with the actual diagnosis of cancer, while over 60% had unspecified tumors. There was, however, an attempt to give exact anatomical locations, and tumors of the foot, arm, chest and leg appeared in the registers. Few neurological disorders were discernible in the admission books but there were some people who did suffer from epilepsy, mental demensia and headaches. One person was even admitted with rabies. Unfortunately, the minimal numbers and vague nature of the diseases in all three of these categories prevented any meaningful analysis.

Eye and ear problems were the least likely reason for people to come to hospital. The three who underwent treatment complained of cloudy vision, most probably cataracts. One would expect this group to be larger considering Esparragosa's known expertise in lens extractions. Evidence indicates, however, that he was willing to perform the surgery gratuitously either at the hospital or in the homes of the poor. At a meeting of the Economic Society on July 15, 1798, the humanitarian works of Esparragosa were outlined to the membership. The Secretary reported that one Antonio Palacios, a poor 70 year old man, totally blind for 20 years, had

recently undergone a cataract extraction from his right eye. He soon recovered his sight and could now see clearly.¹² Whether the doctor was as altruistic as the report suggests is speculative. By doing the operations at no charge he was able to help those with cataract problems and improve his own technique.

In a society plagued by endemic and epidemic diseases, it is not surprising that infectious diseases were responsible for forty per cent of hospital deaths overall (see Table 13).¹³ In fact, men and women suffering from these illnesses died in equal proportions. Males were more prone to die from gastrointestinal than circulatory problems. Women, on the other hand died from both at a similar rate. The cases of Manuel García and María Vicenta Saquil are representative of those dying from these ailments.¹⁴ Manuel, a widower, was admitted to hospital on January 31, 1807 suffering from calenturas, a high fever.¹⁵ The sixty year old indio's condition deteriorated steadily and he died two days later.¹⁶ In that same year, the india María, wife of Mariano Santos, died on June 12 at the age of twenty.¹⁷ She had been admitted to the female medical ward thirteen days earlier with diarrhea and vomiting and never recovered.¹⁸ Even though their reasons for entry did not go beyond these symptoms, a common feature of diagnoses of that era, it is likely that they suffered from a more severe illness. After all, to this day, high fever, diarrhea and vomiting are the presenting symptoms of a multitude of diseases.

Table 13: Reasons for Admission of Patients Who Died
in Hospital, 1788-1808

Reason	Males		Females	
	N	%	N	%
Infectious diseases	107	39.9	79	39.9
Diseases of the digestive tract	40	14.9	30	15.2
Circulatory disorders	28	10.4	31	15.6
Respiratory diseases	28	10.4	17	8.9
Traumatic conditions	26	9.7	4	2.0
Surgical infections	12	4.5	16	8.0
Miscellaneous Med-Surg	8	3.0	8	4.0
Genitourinary diseases	6	2.2	5	2.5
Musculoskeletal disorders	5	1.9	4	2.0
Diseases of the skin	3	1.1	3	1.5
Tumors and cancers	3	1.1	1	0.5
Neurological/mental diseases	2	0.7	-	-
Total	268	99.8	198	100.1

Respiratory illnesses were the fourth most common cause of death in both men and women. Even though women were much less likely to be admitted for problems requiring surgical intervention, they died at twice the rate men did. Not surprisingly, deaths from traumatic accident or injury were much higher for males than females. One would assume that many of these were work-related accidents.¹⁹ Certainly, this was the case for twenty-five year old José Macón. He fell, most likely from a scaffold, while working on the cathedral in September, 1808 and died almost immediately thereafter in hospital.

Another aspect of the mortality question also deserves examination. While circulatory disorders accounted for only 5.7% of overall admissions, they produced 13% of hospital deaths.

Diseases of the digestive tract also had a higher ratio of deaths per patients admitted.²⁰ Combined with the deaths caused by infectious diseases, they account for 68% of hospital mortality. Were these illnesses far more serious than symptomatic descriptions suggest? Without doctors' case notes it is difficult to tell. On the other hand, a review of the lengths of stay of men and women who died in the hospital (see Table 8, Chapter II), indicates that this is so.²¹ It is quite possible that even though the doctors were seemingly able to treat and cure many of their patients, the state of medicine and surgery at the time precluded their doing all they might for those in desperate need.

Social Characteristics of Disease

There were very few changes in admission rates of each disease category during the period (see Table 14).²² The admissions in the infectious disease category were consistently above 20% per annum throughout and rose even higher in epidemic years. In the years 1794-1799, for instance, 29% of incoming patients were afflicted. Treatment of traumatic conditions increased steadily from 15% in the early group to 21-22% in the latter years. This could most likely be due to the nightly rounds, undertaken by the hospital board. There may also have been more surgeons available. Admissions rose in the surgical procedures and infections category from 8% to 14% but this is not surprising. It

is simply a reflection of the increasingly greater role which surgery came to play in the hospital.²³ There was steady decline in admissions of people suffering from genitourinary problems.²⁴ But, that was most likely due to the drop in admissions of syphilitics during the period.

Table 14: Admissions in Disease Categories Over Time (%)

Categories	1788- 1793	1794- 1799	1800- 1804	1805- 1808

Infectious	22	29	26	23
Traumatic	15	16	22	21
Surgical Infections	8	9	12	14
Digestive tract	12	9	11	11
Genitourinary	16	9	5	7
Respiratory	9	7	6	8
Circulatory	8	7	4	4
Misc. Med.-Surg.	5	6	3	2
Skin diseases	2	3	4	4
Musculoskeletal	1	1	3	4
Tumors/cancers	1	2	3	1
Neurological/mental	1	2	1	1
Eyes/ears	1	1	0	0
Totals	100	100	100	100
	N= 711	N= 692	N= 755	N= 837

An examination of seven or eight of the most common diagnoses listed in the patient registers provides a representative summary of the changes in epidemiological patterns as the eighteenth century gave way to the nineteenth (see Table 15). The fluid nature of the infectious diseases category is evident from the figures in the "fiebre" and "tabardillo" (typhus) categories. There was a 15% drop in the "llagas" category. This phenomenon

might simply be the result of more accurate recording of the diagnoses. Thus, "llagas" or "herido" would be accompanied by a description of the anatomical location of the ulcer or wound. Still, there is not enough evidence to suggest that the reduced admissions of those with ulcers was due solely to medical "progress".

Table 15: Some of the Most Common Diseases Listed in the Libros de enfermos (in %)

Diseases	% total sample	1788-1793	1794-1799	1800-1804	1805-1808	Total
Fiebre Calenturas Frios	16.8	29.4	23.6	25.8	21.1	99.9
Gálico	6.7	48.0	24.8	12.4	14.8	100.0
Tabardillo	5.5	1.8	45.7	23.8	28.7	100.0
Llagas	4.8	27.6	22.7	32.4	17.2	99.9
Dolor de costado	4.2	36.8	22.4	20.8	20.0	100.0
Hidropesía	3.4	32.7	29.7	18.8	18.8	100.0

One would think that there would be some relationship between disease on the one hand and gender, race and marital status on the other. Using the diagnostic category as the control, crosstabulations of race and gender, race and marital status, and gender and marital status were done. Unfortunately this proved unsatisfactory. The results are included here to show why further analysis was not attempted (see Table 16).²⁵

Table 16: Chi Square and Significance Levels for Crosstabulations of Gender, Race and Marital Status by Disease

Disease	Race by Gender	Race by Marital	Marital Status by Gender
Infectious	16.03221 0.0011	20.96634 0.0019	25.49474 0.0000
Genitourinary	19.75122 0.0002	23.24030 0.0007	1.46031 0.4818
Circulatory	0.75078 0.8612	0.95000 0.9874	7.67977 0.0215
Traumatic	6.39165 0.0940	7.42993 0.2829	28.11325 0.0000
Digestive	0.31150 0.9579	9.39627 0.1525	1.21293 0.5453
Surgical Infect.	1.74116 0.6278	4.27419 0.6396	4.31309 0.1157
Respiratory	1.39847 0.7059	6.69115 0.3504	4.63863 0.0983
Skin diseases	7.50491 0.0574	13.38284 0.0373	2.35451 0.3081
Musculoskeletal	2.29258 0.5139	12.22984 0.0570	2.30723 0.3155
Tumors/cancers	4.11706 0.2491	15.53450 0.0165	3.36132 0.1863
Eyes/ears	0.81680 0.8454	9.49205 0.1477	0.48148 0.7860
Neurolog/mental	4.56262 0.2068	1.49653 0.9597	1.85592 0.3954
Misc. Med.-Surg.	1.36453 0.7139	10.77711 0.0955	0.53768 0.7643

Chi-square = top figure. Significance level = bottom figure.

Except for two cases, there seemed to be little relationship between the variables. Not surprisingly, the two most significant were in the marital status and gender tables for infectious diseases and traumatic conditions. This was not an accidental phenomenon. These groups accounted for many of the hospital population and gender differences did exist within these categories. Without obstetrical care available at the hospital, there was no one disease common to females. On the other hand, traumatic conditions were as near to being specific to males as possible.

The most common diseases taken from the registers, however, are more likely to provide the link necessary to somehow relate marital status and race with disease. Syphilis is a case in point. Over 60% of admissions were single. Of the 30% who were married, Spaniards and mulattos were dominant. In fact, 22% of those in hospital with syphilis were Spaniards. This was the only category in which they were at all prominent.²⁶ Evidence points to a high incidence of syphilis in single mulatas and Indian women but, although this is tentative, it would not be surprising given that they were the most oppressed in the society.

Indians fared badly in the society and in hospital. The rules and regulations set forth by the Spanish Crown in the mid-sixteenth century did little in reality to protect los indios. Instead, they were marginal to the society that developed around

them. In the hospital, they suffered the highest death rate. It must have been frightening for Indians ill enough to require treatment to come to the hospital. Even as they may have come in response to the active public education campaign on the control of contagion, one-quarter of them would die in the institution.²⁷

The human condition of Guatemalans at the end of the eighteenth century, however, is best described by the anecdotes which follow. In the capital city, the plight of some cannot help but engender sympathy. Take, for example, María Valdez, a twelve year old Spanish girl living in Nueva Guatemala, who was admitted in October, 1804 to the surgical ward after being cruelly whipped (the entry actually states azotada cruelmente). She left after ten days, presumably as her wounds were healing adequately. While no reason was given for the whipping, one might suspect parental discipline. Even though obstetrical care was not given under normal circumstances, on two occasions in 1805, women who needed care were admitted. In one instance, a fifty year old married española came to hospital after having been raped. A more poignant story is that of Felipa Gaspar, an unmarried mulata girl of sixteen years, who died four days after admission from complications arising from a pregnancy. She could have suffered a miscarriage but more likely it was a post-partum hemorrhage. In any event, whatever the cause, the surgeons were unable to cope to her advantage.

On one occasion at least, the hospital showed compassion to those in peculiarly difficult circumstances. Juana García, a poor thirty-four year old india, married with two children and from outside the city, was allowed to keep her offspring with her when she entered the hospital in December of 1806. The children remained in the institution while their mother received treatment for chills and fever, all three occupying the same bed during their thirty day stay. While the hospital's generosity was laudable, its administrators showed a lack of concern for the possible spread of contagion as well as the general health of the children.

Unfortunately, the occupations of patients were not included in the registers, yet, on occasion, one is told that, for example, a forty year old married indio from Ciudad Vieja, on the outskirts of Antigua, was employed as a carpenter by a Don Antonio (last name not provided), resident of the new capital. In April of 1803, the man was brought in by his employer with an injury, most likely work-related. He was discharged twenty-four days later. Just as Don Antonio obtained medical attention for one of his carpenters, female employers also sought health care for their personal employees. Raimunda Leonarda, maid to Doña Xavier Barcena, was brought to hospital in late August, 1804 suffering from typhus and died two days later. With the population so sensitized to the signs and symptoms of the disease, however, one might conclude that Doña Xavier was more motivated to keep her home as free from

infection as possible. On the other hand, she may have genuinely cared for the mulata who had been in her employ for a number of years.

The upper echelons of the society appeared more frequently after 1800. There were twenty-three altogether, eighteen "Dons" and five "Doñas". Two of the Doñas were admitted in 1795. One, sixty year old Doña María Sierra, died of dropsy on the day she was admitted. As an elderly single Spanish woman from the old capital, she probably had no one to care for her. The other, Doña Bertruda Reyes from Guatemala was only twenty-two when she came to the hospital for treatment of gálico or syphilis. The whole episode must have been quite distressing for the young married woman.²⁸ The other three, all residents of the capital, were admitted after 1800 with gangrene, uncontrollable hemorrhage, and high fever. An eighty-three year old widow, Doña Josefa Sallasierra, died from gangrene on her first day of hospitalization. Doñas Josefa Malpica and Tamara Hernandez survived their bouts of illness.²⁹

Of the eighteen Dons, fourteen were single and gave their place of origin as Spain. They were relatively youthful, with ten under thirty. Even though the length of time they spent in hospital varied from two to eighty-three days, half of them were there for under ten. Only one died. Don Manuel de Zea, a thirty-six year old Spaniard from Seville, was the comptroller of

the hospital when he was admitted with dolor de costado in July 1806.³⁰ Very few came in with fever-related illnesses, five were admitted with symptoms akin to those of venereal disease. The bravest patients in this group had to be Miguel Castellanos and José Tajos. In July and September 1804, respectively, they presented themselves to the hospital's surgeons for a hemorrhoidectomy and an inguinal hernia repair. Twenty-two year old Miguel was there for sixty-four days waiting for his hemorrhoidectomy wound to heal. He must have come into contact with José who arrived in the surgical ward less than two months later. One wonders how the seventeen year old mustered up the courage to undergo the hernia repair, given the state of surgery at the time. They both survived to be discharged back to their homes far removed from the capital. Thus, the hospital may have provided an important service to the elite from outlying areas of the kingdom. It is possible that they may have come to the capital simply to have their elective operations performed by renowned surgeons.

San Juan de Dios also provided medical care to prisoners from the local jail. The thirty prisoners listed in the sample included twenty-eight men and two women, one of them the female sentenced to do hospital service by the tribunal. In fact, the other twenty-nine were bona fide patients in the institution, a situation borne out by their presenting illnesses. They were of

varied racial origins with four Spaniards, seventeen mulattos, six Indians and one mestizo in the group.³¹ Only one appeared in the sample before 1802, with the numbers (up to thirteen) increasing as time went on. Whether or not a place of origin or residence was listed for them, all were brought to the hospital by various alcaldes from the local prison, the Cárcel de Cadenas, on the outskirts of Antigua. Nearly half stayed, between five and ten days, although some were there as long as three months.³² Certainly they were not unlike the mainstream of patients who usually stayed between five days and three weeks.³³ Three-quarters of the prisoners were single, the rest, including the mulata, were married. In the age category they also were representative of the norm, i.e. the majority was twenty to thirty-four years old.

One might expect prisoners to come to hospital with injuries or wounds of one kind or another, yet this was not the case. In fact, they were afflicted by a variety of ailments. Aside from the chest, bone and knee pain suffered by some, only five were admitted for injury-related reasons. Skin diseases and tumors on face and foot were present, as were the llagas gálicas (syphilitic sores). Of most concern to prison authorities, however, was the outbreak of measles in March 1804. Only two male prisoners appeared in the sample as having been brought from prison after contracting the disease, but more were evident in the registers themselves.

There was only one entry from Dr. Esparragosa's Diario ... which was legible on the microfilm and it was more like an admission note than a case history. Yet the description of the patient's injury illustrates the Spanish penchant for detail. We are told that Felipe B., a mulatto from Guatemala, was fifty-six years old when he presented himself to the admitting officer at the hospital on September 21, 1801. He had been hit by a rock, between the eyes, in the middle of his head. One can only presume that his mental status might have been somewhat impaired by the injury yet, if he wanted quality treatment for his eyes and head he had come to the right place. By this time Esparragosa's expertise, at least in eye surgery, was well-known. Felipe left the hospital twenty-eight days later but we are never informed as to his condition on discharge.³⁴

The patient records at times detailed the sorrow surrounding an institutional death. Life's tragedies, acted out with the hospital wards as their stage always seem to elicit more emotion from us, especially if the situation involves a sudden and acute change in a patient's condition. The highly descriptive language used to communicate these circumstances is perhaps a most human reaction to the shock of seeing someone, heretofore healthy, die before our eyes. The deep sadness felt by the hospital scribe after the following incident was most evident in his description of events. On April 28, 1803, Don José Aycinena appeared at the door of the hospital with a wounded Pedro Gijón in his arms. The

young mestizo (he was thirty) was married and, although he was from Antigua, he had made the ~~new~~ capital his home. One senses, in this case, the drama of an emergency patient being rushed into surgery, yet Pedro was not so lucky. Before they could get him into a bed he died at the door of the ward, still in Don José's arms. But death had its bittersweet reward: the Aycinenas were Guatemala's first family. For what more could one wish than to die in the arms of one of the most noble in the kingdom?³⁵

It is not a coincidence that many of the examples described above relate to the years after 1800. Much has been made of the administrative changes that occurred in the hospital at this time and with good reason. The documentation was much more comprehensive than before, or maybe it appeared so because of the more rigorous attention to detail once the hospital came under secular control.

Conclusion

This brief description of the diseases suffered by the patients of San Juan de Dios between 1788 and 1808 offers proof that physicians and surgeons in the capital city actively treated a wide range of illnesses. Although the citizenry was just as susceptible to epidemics as other eighteenth century societies in North America and Europe, the goal of those working at the hospital was to provide adequate medical care to those in need. It

became more and more a reflection of the Enlightenment as surgical intervention became more important in the treatment of many diseases.

The classification of these diseases into bodily systems gives some indication of the general patterns of illness in Guatemala City. It must be recognized that many of seemingly internal ailments were much more serious than their symptomatic descriptions suggest. Also, fevers and chills were so dominant in the hospital's population both in terms of reasons for admission and causes of death that they overshadowed the others. While comparisons with institutions elsewhere are difficult to make due to the lack of published studies, some diseases were common to patients in Mexico City, Edinburgh as well as Guatemala.

Gastrointestinal and respiratory disorders which were so evident in Chase's study of Mexico City hospitals were not as prevalent in Guatemala but were seemingly just as deadly. In Scotland, on the other hand, diseases of the digestive tract were much less common. In fact, in Edinburgh's Royal Infirmary, the most frequently listed reason for admission was genitourinary disorder. Spanish American hospitals, however, had declining numbers in this category, most probably related to a decrease in syphilitic patients.

Even though upper class Guatemalans did receive treatment at the hospital, most of the patients were from the lower socio-economic orders. The profile of their diseases is indicative of that. Many of the skin, gastrointestinal and respiratory problems which afflicted them were proper to the living conditions which they had to endure. Even those who suffered traumatic injury were, to a certain degree, victims of their environment and social condition. But then, despite the scientific and educational vocations of a general hospital, it was also part of its proper role to meet the needs of such as these.

NOTES

1. Although the debate over the origins of syphilis continues, it is accepted that this disease was present in the New World before the Conquest.

2. The various arguments are outlined in the Introduction with reference to Peter's article "Disease and Society ...".

3. See Risse's third chapter in his recently published monograph, Hospital life..., p. 124.

4. The latter two categories, which accounted for 126 cases, were not retained. Thus, the analysis is based on 2995 cases.

5. The first board of public health was created at this time. Earlier, a vaccination board concerned with immunizing the population against smallpox had functioned in the city.

6. See discussion on type of care in Chapter II.

7. The surgical cases reported 71% males and 29% females.

8. Typhus admissions: 1794-1799, 45.7%; 1800-1804, 23.8%; and, 1805-1808, 28.7%.

9. An aqueduct, built in 1832 to alleviate the problem, brought the water a distance of fifteen miles. See William Eleroy Curtis, The Capitals of Spanish America (reprint ed., New York, 1969), p. 60.

10. The profile of those with gálico shows 60% male and 40% female.

11. Ayerza's disease is characterized by an increase in red blood cell mass in the blood and is marked by distention of internal organs and persistent dyspnea. See Dorland's Illustrated Medical Dictionary, (26th edition) (Toronto, 1985), p. 385-6.

12. Sebastián Melón, Quarta junta pública de la Real sociedad económica de amantes de la patria de Guatemala celebrada el día 15 de julio de 1798 (Nueva Guatemala, 1798).

13. It is important to remember that only the admission complaint was noted, although in many cases it was also likely to be the cause of death. In the discussion on mortality it will be presumed that the two are compatible.

14. The burial records for the hospital grounds existed, along with the patient registers, for the year 1807. These two cases were located and deciphered in both sets of records. Both were buried in the hospital cemetery.

15. MCM 574-A, leg. 1851, exp. 12137.

16. MCM 573-A, leg. 1851, exp. 12136.

17. MCM 573A, leg. 1851, exp. 12136.

18. MCM 577-A, leg. 1866, exp. 12188. Both Manuel and María were from Indian barrios, Candelaria and Jocotenango, just outside the old capital of Antigua.

19. Unfortunately, the occupations of the patients are not generally included in the registers but on occasion references to the patient's employment are made.

20. Ten per cent of admissions as opposed to 15% of deaths were attributed to gastro-intestinal problems.

21. 43% of females and 47% of males expired during their first week of hospitalization.

22. Using the following yearly groupings, the major disease categories were analyzed to establish changes in admission rates over time: 1788-1793; 1794-1799; 1800-1804; 1805-1808.

23. The increase in surgical cases after 1800 was discussed earlier.

24. The admission rate for these particular diseases dropped from 16% to 9%.

25. Statistical significance should be between 0.0001 and 0.0000, the closer it is to the latter, the better.

26. Only 21% were Indians; 47% mulatto and 10% mestizo.

27. The actual figure is twenty-three percent.

28. She stayed twelve days.

29. Josefa was married, thirty years old, with fluxo de sangre or uncontrollable bleeding. She left, presumably cured, after one week. It took thirteen days to stabilize Tamara's fever. At sixty years of age and single, she probably was more prone to ill health than those younger than she.

30. This expression has been translated to mean tuberculosis or pneumonia, certainly it was a symptom which referred in some way to the lungs. Don Manuel died the same day.

31. The racial origins of one of the group was not given.

32. Their length of stay did vary between four and eighty-two days.

33. Eighteen prisoners were in hospital for five to twenty days.

34. Diario . . ., leg. 1865, exp. 12182.

35. MCM 573-A, leg. 1850, exp. 12132.

Conclusion

The medical profession and Enlightened elite of late eighteenth century Guatemala City created a hospital facility which offered up-to-date medical care to the citizens of the Central American kingdom. Given the older historiography on hospitals this assertion may seem surprising. Nonetheless the evidence is conclusive. While one might assume the existence of a "will to provide medical care" merely from Enlightenment-inspired reform projects or from undoubted advances in eighteenth century medical education, these indices must be supplemented with practical evidence that hospitals shared in the new values. In this thesis the patient registers of the Hospital de San Juan de Dios were used to provide empirical proof that this institution provided medical care and was in every sense, an expression of Enlightenment reform.

It is evident from the reports generated by Crown ministers in 1782 that the Bourbon administration was intent on streamlining its health care facilities to better serve and benefit the public. Yet, without cooperation from colonial officials and elites, these recommendations could not be acted upon overseas. That support, however, was forthcoming. In response to the reports, Guatemalan medical and social reformers were able to gradually transform the

Hospital de San Juan de Dios into the kind of general hospital which Bernardo Ward and Campomanes envisioned, one which treated all classes in the population. But what is the practical evidence of this? The only way that we can demonstrate that their goals were realized is by examining the patient registers to see who attended this hospital. That research validates what was posited. Not only do the libros establish that all racial groups of both sexes were represented, they also show that priests, prisoners and soldiers were included in the patient population.

If all racial groups are represented in the admissions registers, however, this calls into question the standard perception that hospitals in this period were primarily intended for the poor. The relevance of the registers in addressing this issue may at first seem suspect given the absence of direct evidence on the economic conditions and occupations of the patients. Despite this, however, we do know that in the Latin American colonial setting wealth and social status are highly correlated to race. We can use the ethnic diversity which is apparent from the examination of the libros as an indicator of social diversity. Thus, even though the lower classes (Indians and coloureds) were predominant in the hospital population, it is highly significant that Spaniards were also there in appreciable numbers. Still more surprising, given the high degree of protectiveness shown by that white society toward its females, is the presence of Spanish women. Even Dons and Doñas, who were

considered noble, were patients and entered in increasing numbers after the secularization of the hospital. While the presence of the poor in hospital might be viewed as an indicator of indigence, this cannot be said for those in the higher socio-ethnic groups. That any Spaniards were in that hospital is strongly suggestive of the fact that the institution did not cater simply to paupers.

Examination of the registers, however, offers more than proof that the hospital actually developed as the elite hoped it would. The libros reveal, on several levels, that the doctors were quite serious about providing the most advanced and up-to-date medical care to the public and that this perception was held by the population. Indeed, if members of the higher castes admitted themselves to hospital they must have felt that the institution offered genuine medical care. This attitude can be attributed to the other groups as well. In fact, one of the most striking features of the admission figures, counted from the registers, is the continual rise in the number of patients, especially after 1803. As demographic and economic conditions in the colony were stagnant and there is no evidence of major upgrading or enlargement of the institution's physical plant, the greater number of admissions must have been due to an increased willingness on the part of the citizenry to be hospitalized. Certainly as the institution became more oriented to medical concerns and professional functions, the population had to become increasingly aware of its therapeutic goals. Yet, the public's

perception of a care-giving institution is not the most important feature of this question.

The records are far more valuable for what they tell us about what actually happened in the hospital. They are crucial in proving that the doctors actually provided genuine medical services. If this were so, one would expect that an Enlightened institution would place an increasing emphasis on surgery as the nineteenth century dawned. In the Hospital de San Juan de Dios surgical admissions tripled over the twenty year period under study to nearly equal those on the medical side. This obvious increased interest in surgery and greater supply of facilities for operations testify to the importance of Enlightenment ideals in Guatemala. Certainly the hospital became more and more a reflection of these ideals as surgical intervention became more important in the treatment of disease.

Also indicative of the medical profession's commitment to giving care was that the surgeons, like those in Scotland and France, were using casebooks. Although I could not make extensive use of the one written by Dr. Esparragosa, its very existence attests to the fact that active treatment was offered at the hospital. The libros also provide independent information that complicated surgery, such as inguinal hernia repairs, haemorrhoidectomies and cataracts, was being performed. Esparragosa's accomplishments and skill in performing eye surgery

in general and lens extractions in particular were publicly acknowledged. Anyone entering the hospital with eye problems would know that a skilled surgeon would be caring for them.

There were over four hundred different reasons for admission listed in registers. While we cannot know how representative these are for the city we can at least determine that certain diseases that brought people to hospital were present in the population. Only the registers could supply the information that we are searching for in this regard. From them, we know that the doctors were dealing with many serious illnesses and a wide range of diseases. Afflictions such as tuberculosis, pleurisy, dropsy, epilepsy, typhus, kidney stones, and erysipelas testify to this. What is most striking, however, is the relative ease with which the "diagnoses" fitted into Risse's scheme based on Cullen's nosology. While it is known that Guatemalan medical personnel knew of Cullen's work, this is a clear indication that their knowledge went further than the theoretical, they actually practised his system of disease classification.

It has been stressed in this thesis that the libros offer valuable information about the functioning of the hospital and the commitment of the medical profession to providing the public with the best possible care. The registers, however, also reveal something about the oppression and racial disparities of the society, the pervasive social inequality which was a constant

feature of Guatemalan Colonial life. These records pointedly indicate if a patient was noble; ecclesiastic, soldier, slave or prisoner; if he was white, mestizo, mulato, or Indian. Since ethnicity and social status were directly related, the registers provide no less than a map of the Guatemalan social spectrum. All general histories of the colony document that life was grim for most people. Surely this is evident from the records which show many of the lower classes afflicted with diseases traditionally common to the poor. The positive relationship between color and mortality is also a testament to the suffering of those with darker skins. Equally significant is the evidence of gender inequality. For reasons unknown, Spanish women had a relatively high death rate and were the exception to this positive relationship between color and mortality. Overall, one in every six females as compared to one in every nine males admitted to hospital died there.

This thesis is part of the recent and on-going historiography on patients, a series of works which document their changing attitudes towards hospitalization during the eighteenth century. I have relied on past studies written by Arthur Imhof and Guenter Risse for guidance in my attempt to provide evidence that the physicians and surgeons at the Hospital de San Juan de Dios offered up-to-date medical care to the population of the kingdom of Guatemala. The records show that, in return, the citizens of the capital responded to this commitment by entering the

institution in ever increasing numbers in the belief that they would be cared for in a professional manner.

APPENDIX

Appendix Table 1: Total Annual Admissions by Gender, 1788-1808

Year	Males		Females		Total
	N	%	N	%	N
1788	822	70.14	350	29.86	1172
1789	903	70.44	379	29.56	1282
1790	1102	69.26	489	30.74	1591
1791	1139	64.53	626	35.47	1765
1792	1134	65.82	589	34.18	1723
1793	1219	64.77	663	35.23	1882
1794	1158	64.62	634	35.38	1792
1795	1078	63.23	627	36.77	1705
1796	1020	64.56	560	35.44	1580
1797	1112	68.01	523	31.99	1635
1798	1006	68.11	471	31.89	1477
1799	968	65.85	502	34.15	1470
1800	991	62.37	598	37.63	1589
1801	1143	64.69	624	35.31	1767
1802	1168	62.49	701	37.51	1869
1803	1332	65.84	691	34.16	2023
1804	1871	67.72	892	32.28	2763
1805	1576	63.35	912	36.65	2488
1806	1500	60.10	996	39.90	2496
1807	1682	62.27	1019	37.73	2701
1808	1926	58.45	1369	41.55	3295
Total	25850	64.52	14215	35.48	40065

Appendix Table 2: Seasonal Variations in Admissions, 1788-1808

Year	Season	Number
1788-1789	Dry	554
1789	Rainy	674
1789-1790	Dry	741
1790	Rainy	821
1790-1791	Dry	862
1791	Rainy	927
1791-1792	Dry	790
1792	Rainy	876
1792-1793	Dry	952
1793	Rainy	931
1793-1794	Dry	837
1794	Rainy	963
1794-1795	Dry	753
1795	Rainy	961
1795-1796	Dry	890
1796	Rainy	793
1796-1797	Dry	616
1797	Rainy	952
1797-1798	Dry	570
1798	Rainy	690
1798-1799	Dry	643
1799	Rainy	775
1799-1800	Dry	711
1800	Rainy	810
1800-1801	Dry	919
1801	Rainy	921
1801-1802	Dry	773
1802	Rainy	1037
1802-1803	Dry	976
1803	Rainy	980
1803-1804	Dry	1310
1804	Rainy	1402
1804-1805	Dry	1150
1805	Rainy	1308
1805-1806	Dry	1314
1806	Rainy	1270
1806-1807	Dry	1419
1807	Rainy	1363
1807-1808	Dry	1514
1808	Rainy	1769
TOTALS	DRY	18294
	RAINY	20223

Appendix Table 3: Racial Components of Hospital Patients,
1788-1808

Race	%	
español	10.24	
castizo	1.27	---
mestizo	10.28	--- mestizo
ladino	0.03	---
pardo	0.30	---
mulato	44.31	--- mulato
negro	0.47	---
indio	33.09	

Appendix Table 4: Numbers and Percentages Used to Calculate
Population Pyramids for Sample Population

Age	Male		Female	
	N	%	N	%
0-4	0	0	1	0.1
5-9	13	0.7	15	1.3
10-14	60	3.1	29	2.6
15-19	210	11.0	108	9.7
20-24	314	16.5	180	16.2
25-29	240	12.6	147	13.2
30-34	336	17.6	181	16.3
35-39	134	7.0	115	10.3
40-44	211	11.1	125	11.2
45-49	91	4.8	29	2.6
50-54	134	7.0	71	6.4
55-59	40	2.1	26	2.3
60-64	66	3.5	55	4.9
65-69	17	0.9	8	0.7
70-74	17	0.9	9	0.8
75-79	5	0.3	3	0.3
80+	18	0.9	11	1.0
Total	1906	63.1	1113	36.9

Appendix Table 5: Ages of Sample Population by
Gender in Selected Years

	1788		1790		1795		1800		1805		1808	
	M	F	M	F	M	F	M	F	M	F	M	F
0-4	0	0	0	0	0	0	0	0	0	0	0	0
5-9	0	0	0	0	0	1	0	0	2	1	1	1
10-14	1	1	1	1	3	0	4	0	2	3	6	3
15-19	6	3	12	0	6	3	5	4	21	10	15	5
20-24	3	2	16	5	12	11	9	6	13	12	32	17
25-29	12	3	12	5	8	7	7	6	6	15	27	32
30-34	8	3	13	1	11	9	15	8	18	10	19	17
35-39	4	5	9	3	5	2	10	6	6	6	11	17
40-44	4	4	8	6	9	3	6	4	12	5	15	8
45-49	2	1	4	0	7	0	3	3	1	1	8	3
50-54	4	2	4	2	3	2	4	6	8	2	13	6
54-59	1	0	1	0	1	3	1	3	2	4	7	2
60-64	0	0	2	3	1	1	3	4	4	6	4	4
65-69	1	0	1	1	0	0	1	0	0	2	1	0
70-74	0	0	3	1	0	0	2	2	0	0	0	0
75-79	0	1	0	0	0	0	1	0	0	0	2	0
80+	1	0	0	0	1	3	2	1	1	0	0	0
	N=72		N=115		N=112		N=126		N=173		N=276	

Appendix Table 6: Ages at Death of Sample Hospital Population,
1788-1808 (N=461)

	Male		Female		Total	
	N	%	N	%	N	%
0-4	0	0	0	0	0	0
5-9	1	0.38	3	1.52	4	0.87
10-14	5	1.89	3	1.52	8	1.74
15-19	12	4.54	13	6.60	25	5.42
20-24	25	9.47	17	8.63	42	9.11
25-29	24	9.10	24	12.18	48	10.41
30-34	39	14.77	29	14.72	68	14.75
35-39	17	6.44	22	11.17	39	8.46
40-44	33	12.50	23	11.67	56	12.15
45-49	14	5.30	4	2.03	18	3.90
50-54	38	14.39	16	8.12	54	11.71
55-59	10	3.79	8	4.06	18	3.90
60-64	23	8.71	21	10.66	44	9.54
65-69	4	1.52	2	1.02	6	1.30
70-74	6	2.27	6	3.05	12	2.60
75-79	3	1.14	2	1.02	5	1.08
80+	10	3.79	4	2.03	14	3.04
Total	264	100.00	197	100.00	461	99.98

Appendix Table 7: Origins of Patients by Region (N=2970)

Region	N	%
Guatemala	2510	84.51
El Salvador	127	4.28
Honduras	7	.24
Nicaragua	26	.87
Chiapas	25	.84
Mexico	28	.94
Caribbean/South America	10	.34
Spain	30	1.01
Indian communities	207	6.97
Total	2970	100.00

Appendix Table 8: Disease Categories and Diagnoses

A. Infectious diseases

- calenturas	199
- tabardillo	164
- frios	159
- fiebre	144
- frios y calenturas	38
- sarampión	8
- hética	6
- llagas en garganta	6
- calenturas/dolor del pecho	3
- esquinancia	3
- calenturas/dolor de cuerpo	2
- calenturas/evacuaciones	2
- paperas	2
- tabardillo/dolor de costado	2
- angie	1
- calenturas/constipación	1
- calenturas/dolor de costado	1
- calenturas/dolor de cabeza	1
- calenturas/tabardillo	1
- calenturas de golpe	1
- campanilla inflamada	1
- calenturas/dolor de estómago	1
- fiebre senta	1
- frios y calenturas/postema	1
- frios y calenturas/dolor de cuerpo	1
- tabardillo/tísica	1
- fiebre/caida	1

B. Traumatic conditions

- heridos	313
- herido de cabeza	51
- golpe	36
- mordidos, mordidos de perro	14
- herido de brazo, derecha, izquierda	10
- herido de mano	9
- caida	7
- quebrada, brazo, mano	6
- descompuesto, costilla, brazo, mano	6
- herido de cara	6
- herido de frente	5
- herido de estómago	5
- lastimada de cara, narises, costado, mano, toro, pie	5
- herido del pecho	4
- golpeado de pierna	4
- herido de mano derecha	3

- herido de boca	2
- herido de cabeza y brazo	2
- herido de costillo	2
- pedrada de cabeza	2
- pedrada de ojo izquierda	2
- picuda de pie	2
- pie dispreseado	2
- resultado de herido	2
- desenvertado en pie	2
- golpeado de ojo izquierda	2
- herido de rodilla	2
- azotada cruelmente	1
- vaguides	1
- brazo dislocación	1
- caída boca	1
- machado de dedo cinco de mano derecha	1
- dedo incogido	1
- desconsataduras de mano	1
- dislocación	1
- incogidas de pierna	1
- golpe de cintura	1
- golpe de espirilla	1
- golpe de ojo derecha	1
- golpeado de caballo	1
- golpeado de cabeza y brazo	1
- golpeado de cuerpo de caída	1
- golpeado de mano quesedio	1
- herido de brazo y pecho	1
- herido con matacate	1
- herido de costado	1
- herido de dedos y pie	1
- herido de espalda	1
- herido de pie izquierda y dedo parte	1
- herido de mano izquierda	1
- herido de pantoria	1
- herido de partes	1
- herido del pecho y cara	1
- herido del pecho y mas	1
- herido del pecho gamera	1
- herido de pie	1
- herido de razor acostumbrado	1
- herido de rodilla y boca	1
- herido de vientre	1
- heridos extensivos	1
- macheta de pie	1
- molesta	1
- brazo zafado de caída	1
- pedrada de costado	1
- piquetes de cabeza	1
- piquetes de oido	1
- piquetes de vientre	1
- piquelia	1

- piquete de costillas	1
- costilla quebrada	1
- tomada de cara	1

C. Surgical Procedures and Infections

- llagas	145
- postemas	31
- inflamación	17
- inflamación de vientre	15
- llaga de miembro	13
- llagas en el pie	13
- fluxión de cara	10
- pierna inchada	6
- inflamación de partes	5
- postema de pecho	5
- llagas de pierna	4
- brazo inchada	3
- llaga de espinilla	3
- llaga de abajo	3
- fistula	2
- fluxión de brazo	2
- fluxión de ojo derecha	2
- gangrena	2
- inchada de cara	2
- inchada	2
- llaga de boca	2
- llaga de espalda	2
- llaga de pecho	2
- postema de brazo	2
- postema de garganta	2
- quemadura	2
- llagas de cara	2
- inchada de boca	1
- abentura de huesos	1
- fistula en pie	1
- fluxión de mano	1
- fluxión/flujo de ojo	1
- fluxión de pierna	1
- fluxión de brazo derecha	1
- inchada de garganta	1
- inchada de vientre	1
- inchada de brazo izquierda	1
- inflamación de brazo	1
- inflamación de cara	1
- inflamación de percusso	1
- inflamación de rodilla	1
- inflamación de vientre/llagas	1
- llaga de oreja y pie	1
- nuerma caída	1
- inchada de pie	1
- postema de espalda	1

- postema de brazo izquierda 1
- recurre inflamado 1

D. Diseases of the digestive tract

- dolor del estómago 66
- diarrea 54
- evacuaciones 44
- gas/aire 30
- pujos 28
- dolor de vientre 13
- gusanos/lombrises 12
- vomitos 9
- purgación 7
- obstrucciones 6
- pólipos 5
- disintería 5
- dolor del hígado 5
- empacho 4
- dolor cólico 4
- vómitos y evacuaciones 3
- constipación 2
- dolor de cintura 2
- fatiga estómago/calenturas 2
- digestivo 2
- cólera 1
- dolor de vientre y calenturas 1
- dolor del estómago y flujo de sangre 1
- enfermo de boca 1
- entremas 1
- evacuaciones/dolor de pierna 1
- intestinos 1
- pertalesera/pujo 1
- pujos/dolor de estómago 1

E. Genitourinary

- gálico 202
- encordio 28
- mal de orina 11
- llagas gálicas 9
- pujos de orina 7
- gota 2
- anguira 2
- enfermo de la parte 2
- piedra 2
- supreción de orina 2
- parafimosis 1
- riñones 1

F. Respiratory diseases

- dolor de costado	126
- dolor de pecho	58
- dolor de cuerpo	15
- tísica/tisis	7
- pleurítico	7
- catarro	4
- resfriado	4
- asma	3
- dolor de garganta	2
- dolor de pulmones	2
- hemotiosis	2
- hipo	1

G. Circulatory problems

- hidropesía	102
- fluxión	39
- fluxión de sangre	10
- flujo de narises	5
- irritación de sangre	3
- almorranas	2
- detención de sangre	2
- dolor de corazón	2
- negro	2
- hemorragia	2
- piernas	1
- pulsación	1

H. Miscellaneous medicine and surgery

- dolores	77
- insulto	12
- vejez	9
- hernia	4
- enfermo	4
- resultado de parto	1

I. Diseases of the skin

- granos	48
- erysipelas/erysipelas de cabeza, brazo	15
- bubas/bubas de cara, miembro	14
- herpes total, cabeza	7
- sarna	6
- gusanos de narises, cabeza	4
- carbunclo	3
- lepra	2
- cutsanera/firia	2
- epidemia	1

- pulas	1
- pelagra	1
J. Musculoskeletal disorders	
- dolor de huesos	25
- dolor de pierna	11
- reumatismo	19
- reumata de brazo, mano, pierna, pie	4
- mal de pies	3
- dolor de rodilla	2
- enfermo de brazo	2
- dolor de huesos y costado	1
K. Tumors and cancers	
- tumor	32
- tumors de parte	4
- tumors en la pie	4
- tumor de brazo	2
- tumor de pecho	2
- tumor de pierna	2
- cáncer	1
- tumor de cara	1
- tumor de garganta	1
- tumor de ojos	1
- tumor de rodilla	1
- tumor de cabeza	1
L. Neurological and mental disorders	
- dolor de cabeza	14
- dolor de brazo	10
- epilético	5
- demencia/loca	4
- dolor de cara	2
- parálisis	2
- rabia	1
M. Eyes and ears	
- mal de ojos	4
- cataratos, nubes, nubes en los ojos	3
- otalmia	3
- opilaciones	2
- otalmia y ojos	1

Glossary

Audiencia	-- High Court
Ayuntamiento	-- Municipal Council, same as Cabildo
Barrio	-- Neighborhood, or outlying settlement
Bethlehemitas	-- Hospitaller order, founded in Americas
Cabildo	-- Municipal Council, same as Ayuntamiento
Calenturas	-- High fever, often with chills
Cárcel	-- Jail
Castizo	-- Mixed blood, no more than 1/4 Indian
Cédula	-- Royal letter, communicating royal decree
Consulado de comercio	-- Chamber of Commerce, merchant guild
Don	-- Honorific title, connotes nobility
Gálico	-- Syphilis
Gazeta de Guatemala	-- A journal, vehicle for Enlightenment thought
Guatemalteco	-- Person from Guatemala
Hermandad de caridad	-- Board, charged with administration of hospital
Hipólitos	-- Hospitaller order
Informe	-- Formal report
Juaninos	-- Hospitaller order
Junta de salubridad	-- Board, charged with control of contagion
Ladino	-- Indian acculturated to hispanic society
LLagas	-- Ulcerated sores
Médico	-- Physician

Mestizo	-- Metis, roughly 1/2 white and 1/2 Indian
Mulato	-- Dark-skinned mixture of white and negro
Pardos	-- Light-skinned mixture of white and negro
Patronato real	-- Crown authority over the Church
Protomedicato	-- Medical licensing authority
Recopilación	-- Law code, compilation of colonial laws
Sociedad económica	-- Society created to spread Enlightened thought
Viruelas	-- Smallpox
Visita	-- Inspection
Visitador	-- Inspector

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