ORAL HISTORY PROJECT

Murdina M. Desmond, MD

Interviewed by
Lawrence M. Gartner, MD

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PREFACE

Oral history has its roots in the sharing of stories which has occurred throughout the centuries. It is a primary source of historical data, gathering information from living individuals via recorded interviews. Outstanding pediatricians and other leaders in child health care are being interviewed as part of the Oral History Project at the Pediatric History Center of the American Academy of Pediatrics. Under the direction of the Historical Archives Advisory Committee, its purpose is to record and preserve the recollections of those who have made important contributions to the advancement of the health care of children through the collection of spoken memories and personal narrations.

This volume is the written record of one oral history interview. The reader is reminded that this is a verbatim transcript of spoken rather than written prose. It is intended to supplement other available sources of information about the individuals, organizations, institutions, and events which are discussed. The use of face-to-face interviews provides a unique opportunity to capture a firsthand, eyewitness account of events in an interactive session. Its importance lies less in the recitation of facts, names, and dates than in the interpretation of these by the speaker.

ABOUT THE INTERVIEWER

Lawrence M. Gartner, MD

Lawrence M. Gartner was born and grew up in Brooklyn, New York. His undergraduate education was at Columbia University, followed by medical education at Johns Hopkins University, where he received his medical degree in 1958 and pediatric internship from 1958 to 1959. Returning to New York, he continued his pediatric residency at the Albert Einstein College of Medicine, where he was Chief Resident in Pediatrics from 1961-62. He continued at Einstein, doing a fellowship in hepatology, neonatology and research. In 1964 he became a faculty member, rising to Professor of Pediatrics and Director of the Divisions of Neonatology and Gastroenterology and of the Pediatric Clinical Research Center. During this period he carried out a major research program in neonatal bilirubin metabolism. In 1980, he became Professor and Chairman of the Department of Pediatrics at The University of Chicago and Director of Wyler Children's Hospital. In 1998, Dr. Gartner retired from the University of Chicago. He now lives and works from his ranch in Valley Center, California (San Diego), continuing lecturing and writing in neonatal jaundice, breastfeeding and history of neonatology.

In 1956, he married Carol B. Gartner, who subsequently became Professor of English at Purdue University and Dean of the College of Arts and Sciences at the Calumet campus. She also writes and lectures on the history of medicine, sometimes with her husband. She also assists in the oral history project, with specific responsibility for the video recording and photographs that accompany each oral history. They have two children, Alex Gartner, President of MGM Film Production and Madeline Gartner, a practicing general surgeon.

Dr. Gartner points out that Dr. Desmond's interview was the first of the series of oral histories on the founders of the subspecialty of neonatology. Approximately 15 additional oral histories are either completed or planned in this series. The purpose is both to record the personal career histories of these people and to explore the creation of the field of neonatology from the clinical, educational and investigative perspectives.

Interview of Murdina M. Desmond, MD

DR. GARTNER: This is Dr. Larry Gartner interviewing Dr. Murdina M. Desmond, on December 7th, 1996, in Houston, Texas, in Dr. Desmond's home, specifically in her living room. I'd like to start with a little bit about family and background, where you were born.

DR. DESMOND: I was born on November 14, 1916 in the Isle of Lewis, Scotland. This is a remote island in the northern part of the Western Isles, the Hebrides. My father was a farmer and my mother a schoolteacher from Edinburgh. They both came from huge families. My father's family had been on this island for generations and were a rather religious group. My mother's family was less religious, more into engineering. I lived a very happy life there.

We came to the United States in 1923. The reason was the island experienced famine and depression after WWI [World War I]. There was a lot of tuberculosis, etc., and the future looked pretty grim. Although my mother had a master's degree from the University of Edinburgh it was little help, as a married woman could not teach in Scotland. She and my father discussed it, I guess. She had a brother in South Africa, a mining manager, and she had a sister in New Jersey. After due thought she came to New Jersey to look for a teaching position.

We came and were held in Ellis Island for three weeks. We went to Ellis Island because we were brought over by a female parent, and the stay was not to be permanent. I don't know why people have described terrible memories, because I loved Ellis Island. They had play schools, and all sorts of activities for children, and my mother either embroidered or helped people. She spoke English well and a little French. She was able to help those who were in difficulty by writing letters. I personally enjoyed being there.

Then we went to Carteret, New Jersey where we lived with my aunt for some months, until mother was able to get a job teaching. She had difficulty getting a job teaching because of her accent. She had a very strong Scottish accent. Foreigners were not looked upon with great joy by the native Americans. I've found out since that this was the era of social Darwinism in the United States. In any case, we lived there and then after a year or so mother got another position in a high school and commuted to Elizabeth, New Jersey. We moved to Elizabeth.

My mother taught college English in the boys' high school. My sister and I went to the girls' high school. And then my mother had a brainstorm and she

wrote to [William Allan] Neilson, president of Smith [College] asking him about scholarships and what we would have to do to qualify. [Laughs] We really worked at qualifying. My sister, who was two years older, got hers without difficulty. I hoped to get one on the basis of science since I was very good at science according to my high school grades. However, I didn't do so well on my chemistry board. I still got the scholarship on the basis of my English examination. [Laughs] We weren't expecting that.

I went to Smith College in 1934 and graduated in 1938. College was a wonderful experience. It really was. During the Depression, that college had done what I think was a marvelous thing. It diverted money that it had saved for buildings, particularly an alumni house, and used it for scholarships. And they opened their scholarships to refugees; so we had a very interesting group. I lived in self-help houses. After sophomore year I lived in a language house; we spoke German on the first floor. Some of the students were refugees from Nazi Germany.

So Smith was lovely; it's a wonderful place. I managed to lose my scholarship for six months during my second year, because I had a hard time with math. You had to keep a B+ and I didn't make a B+. Then I made it up the following year. From then on life was smooth.

I had always wanted to go to medical school. I don't remember when I started wanting to go. Mother was very encouraging, and so was my sister, who upon graduation from Smith was determined not to be a teacher. [Laughs] She was absolutely determined not to be a teacher. She entered a *Time Magazine* contest, became a winner and got a job on the new *Life*. She was generous with help.

DR. GARTNER: I just wanted to clarify; how old were you when you came to the United States?

DR. DESMOND: Seven.

DR. GARTNER: And your father remained in Scotland. Did you continue to go back to Scotland to see him?

DR. DESMOND: No.

DR. GARTNER: No. So your parents were separated.

DR. DESMOND: My parents were separated. We corresponded with him continuously.

DR. GARTNER: Well, maybe just tell me a little bit about the decision to go to medical school.

DR. DESMOND: Temple [University] was the school that accepted me without any delay, and Philadelphia was also the least expensive city in which to live. And our family doctor, whom I was very fond of, suggested that I go there. He gave me a gift of the best advice I have ever had. He called me down to his home, which was in a different town, sat me down in his office and told me, "If you're going to succeed, Ina, one, take every test they offer. Ask no quarter. And two, don't be a woman doctor; be a doctor who is a woman." That's what he told me, with such emphasis that I have never forgotten it. The important thing that he said was, "Ask no quarter for your sex." So I went to Temple. My room, in a boarding house, was four dollars a week. It was Depression time.

DR. GARTNER: What was the doctor's name?

DR. DESMOND: Dr. Strandburg. Herbert.

DR. GARTNER: Herbert Strandburg.

DR. DESMOND: Yes, he was a general practitioner in Carteret, New Jersey. As a result of his advice, for example, I took the national board instead of the Pennsylvania ones. And that turned out to be very, very handy at later dates.

I graduated from medical school in 1942. This was a little bit after Pearl Harbor; the class of '42 was very much into WWII [World War II]. One episode lingers in my mind. A neurologic professor, Temple Fay, held our class on the Monday morning after Pearl Harbor Sunday. He didn't hold his regular lecture, rather he acted like a cheerleader, urging us to fight the Japanese and march, "On to Tokyo, on to Tokyo." I remember looking around the room and wondering how this event would affect us all. The class was unresponsive and very quiet, probably wondering also. It was deeply involved. On completion of internships the men were drafted. I know that two of them met on the Normandy beach; they were doctors for adjoining assault teams.

Our class necessarily applied for internships before Pearl Harbor Day. Classically, the January before. I obtained an internship at Lincoln Hospital in the Bronx. I was not eligible for many good hospitals since they were not open to women. Elizabeth, where I lived, was very close to New York. So I went there and that was a fascinating place. Lincoln was located in a neighborhood

where neighborhoods met. And there was none of this melting pot either, none. [Laughs] Neighborhoods were distinct, Puerto Rican, Irish, and Jewish. Lincoln was in the middle and a lot of ethnic battles were going on. Lincoln Hospital had begun as a refuge for poor elderly blacks after the Civil War. Subsequently, it became a hospital with a superb school for black nurses. It was a very interesting and lively place in which to work.

We started out with 28 interns, 14 in their second year. After three months, the second year interns and most of the residents were drafted, except for one resident each in obstetrics, surgery, and pediatrics. The new interns were now for most purposes running the hospital. It was a big hospital; I've forgotten how big, but it was busier than sin. I remember doing things that would have been considered horrifying, carrying out procedures with minimum instructions. I kept an internal medicine text open in the desk drawer, shamelessly reading it for help on the medical wards. Consultants came at intervals from Columbia, on call or to make rounds.

We were a motley group, mostly New Yorkers, but we learned to live together and work well together. It was busy and the hours were very long. I remember on obstetrics, particularly, we were 48 hours on duty and 24 off. In the first 24 hours one did the deliveries and the clinic. In the second 24 hours one gave anesthesia and assisted in clinics.

The intern quarters provided individual rooms for the men. In addition, a two-room suite in the quarters was set aside for the two women, Dr. Zira de Fries and myself. She is a psychiatrist in New York, and her husband, Aaron, was a pathologist for Cornell [University Medical Center]. He had trained at Montefiore [Hospital]--which was the big, looked-for internship and residency in New York. The resident occupying the suite refused to move out. After days of homelessness, and aided by Zira's husband, we obtained a key and moved in with our luggage. The resident fled.

At that time there were no advocates for house staff. We were paid $18 a month, provided with two white jackets and cold cereal during the night. The house staff were overworked and a little anti-establishment but very helpful and kind to each other. The year before (1941), strikes had occurred in a few of the New York hospitals.

DR. GARTNER: Strikes of the house staff?

DR. DESMOND: House staff. They wanted food in the middle of the night and monthly pay.

DR. GARTNER: Sounds reasonable.

DR. DESMOND: It was most reasonable!

In the couple of months before our interns and residents were drafted, I had some unexpected duties: on ambulance call for catastrophes, aiding the police, performing last minute home deliveries, and attending three- or four-alarm fires. These duties were cut back quickly with the drafting of the second year staff.

DR. GARTNER: And that was a rotating internship, so you were on all different services.

DR. DESMOND: Yes. We were frequently summoned to the very busy emergency room. This area was the charge of a little refugee doctor who had come from Europe. She seldom asked for a diagnosis, just wanted to know, "Is this surgical or medical?" She wanted to know for assignment to wards. Her background in Europe was in dentistry.

From the emergency room we were permitted to schedule the operating room along with calling the surgical resident. Because of circumstances, we had unusual responsibilities. After Lincoln, I went to the New York Hospital for a six-month appointment in pediatrics. There circumstances were vastly different. Although the house staff complained about staff shortages, we might have tea in the afternoon.

Dr. Samuel Z. Levine, the chief, was revered and somewhat aloof. On rounds, he was very soft-spoken, very nice, but aloof. You didn't go to see him. He had an office that was very long, and a secretary who really barred the door. [Laughs] What always amazed me was we had no pay. My mother made my uniforms. Dr. Levine gave us a bottle of wine at Christmas, and as we went out, we had to go up and thank him. We went to him, he'd shake our hands and give us the bottle, and then his secretary would say, "Don't forget the thank you note." [Laughs] And I remember experiencing a little rebellion then. As I went out, I noted a wastebasket near the elevator, and I threw in the bottle . . . [Motions, wiping hands together and laughs.]

We had more contact with Dr. Oscar Schloss, a very friendly older man famous for his work in allergy. Present also was a hematologist, Dr. [Frank Raymond] Smith, who had many patients with thalassemia. The two female interns were Jean McMahon from Denver and myself. We had a suite on the 26th floor overlooking the East River with its fascinating galaxy of ships. We were both products of rotating internships in city hospitals. Jean and I had some difficulty

in the beginning because our history and physical write-ups were considered much too short. However, we really blossomed in the emergency room and drop-in clinics because we came to decisions quickly as a result of our prior experiences in city hospitals.

You remember our family was British. My brother was an air force meteorologist, our cousins were in the armed services. One girl fired an anti-aircraft gun in London; two medical student cousins served emergencies in London streets; two cousins were in the RAF [Royal Air Force]. One day, while at Cornell, I learned that the [US] Navy was recruiting women doctors. So I applied.

DR. GARTNER: Before we leave the training and medical school completely, how many women were in your medical school class?

DR. DESMOND: There were twelve I think.

DR. GARTNER: Out of a total of how many?

DR. DESMOND: 125.

DR. GARTNER: About 10%.

DR. DESMOND: Temple, like many schools at the time, was strict and a little bit punitive. At the end of our sophomore year about 86 students remained. It was a large loss, followed by junior year enrollment from the two-year schools. Today, at Baylor, I'm amazed and thrilled at the nurturing attitude directed toward the students. They have counselors, retreats and many social occasions. For us, medical school was conducted like a business.

DR. GARTNER: Did the women in the class do as well as the men?

DR. DESMOND: Three dropped out. One repeated a year. The majority graduated.

In view of the fact that I later went into neonatology, I'd like to mention my early experience with the premature. At Lincoln Hospital, I remember the chief resident in OB, before I left, said, "You've been a pretty good kid, let me show you the prematures." He showed me several in an isolated nursery. I had never seen them before. They were kept separate, cared for by nursing staff and the obstetrical residents. It was off limits to interns. It was a pleasant social visit, nothing more.

One of the earliest premature centers supported by the Children's Bureau was located at Cornell. It was spacious with huge glass windows. A feeding experiment was in progress (Gordon and Levine). Every day the assigned intern would sit in the lobby outside and calculate precise formulas of cow's or human milk for the babies. I learned the significance of this project only years later. An intern was not part of the action. He (or she) entered the nursery only when the chief wanted a hand with an infusion or transfusion. One held the baby only. So, I thought premature care was unexciting.

Back at Cornell, in November, I got a call from Dr. Levine. He was a little annoyed, as I had not accepted a pediatric residency offered to me in Long Island. I had had an interview at Long Island, but had not accepted the position. The medical director however, called and threatened to blackball me. I hadn't told him I would take the job. When I told Levine about the Navy, he was absolutely shocked until he heard my explanation. Then he told me to report to his office in uniform the day I left so he could visualize this transformation. The time was close to Christmas 1943.

The orders came to report immediately. I had one day to get uniforms and pack. My sister came in from *Life* and we had a frenzied shopping spree. Before meeting the train, I put my uniform on and went to see Dr. Levine. As we shook hands, the insignia fell off the hat. We had a long talk and became good friends. While I was in Miami, he came twice to the Keys to fish. Each time he would look me up, discuss my patients and take me to dinner with his fishing buddies. For me, these were wonderful times. I got so I just loved him, but I had not had that feeling in Cornell. It was very impersonal. If you were from Cornell, it was a different matter. But if you were outside of Cornell, a tad cold.

DR. GARTNER: If I could go back a little bit, you said that you had difficulty finding the internship position. You eventually went to Lincoln, but you said that it was difficult to find the rotating internship position. Do you think that had anything to do with being a woman?

DR. DESMOND: Oh yes! Few teaching hospitals took women. One looked up positions in the AMA [American Medical Association] residency book, and they were few. At Lincoln, Zira and I were the first two women. When I went there to report, they said, "Oh my God, what are we going to do with you?" There were no assigned quarters then, no place to stay. The emergency room physician was on vacation so I stayed for two weeks in her room.

After Pearl Harbor, it was a different matter. Then I was able to train at Cornell. I would not have been accepted if it hadn't been for the war. So, there were just not many that took women. Some of the New York City hospitals took women. Oh, now Philadelphia General [Hospital] took women. Those are all I remember from these areas.

DR. GARTNER: Tell me about the Navy experience. What was your role in the Navy medical corps?

DR. DESMOND: I arrived in Miami on Sunday, New Year's Day, 1944. They were having a football game, the Orange Bowl. I went to the Naval Dispensary to report for duty, and they didn't know what to do with a woman because they had no place for a female officer to stay.

Eventually I arrived at the WAVES barracks and met some very kind officers. They sewed the insignia on my hat, demonstrated the salute and welcomed me to the Navy.

I was assigned to the Naval Dispensary and as the youngest officer was the officer of the day much of the time. The dispensary was staffed by two obstetricians, two internists, and a pediatrician (me). The patients were naval dependents and naval personnel seen both at the dispensary and in outlying hospitals.

Many of the corpsmen were marines who had returned from the Pacific and were recovering from malaria. Recurrences were not infrequent. You never knew when you were going to find one draped over the water cooler shaking with chills.

These corpsmen were cheerful can-do types. I remember when I first came, I asked one if he would do a blood count. He said, "Yes ma'am." A few hours later, no blood count. He was in the laboratory attempting to learn the procedure from a manual! [Laughs]

During the day I saw a range of pediatric patients, children and parents. Few had serious illness. Nights were unpredictable with Naval personnel and emergencies. The dispensary had an elderly head corpsman called French; he was from Texas. He'd been in the Navy all his adult life. I was OD [officer of the day] most of the time, most of the evenings. French beckoned to me after the end of the first day, and said, "I'm going to do something, if you don't mind ma'am. I'm going to indoctrinate you." You see, I had had no Naval indoctrination. So over time he indoctrinated me into Naval customs and lore.

Naval stories were most calming after a difficult day. And he showed me how to operate with signals to the staff.

When I left Cornell, friends had a funny little party, and they gave me a set of needles and a three-way stopcock, as a present. That was the most wonderful present I ever had, because that was what I used in Miami. I did IVs for people. See IVs were a big procedure. I gave transfusions with my three-way stopcock.

DR. GARTNER: Which you sterilized between each use.

DR. DESMOND: Oh yes. I carried it in a box.

Although few patients had major illness, I remember one with meningitis, two with polio, many with anemia and one victim of battery. At night, the dispensary served as an emergency room; very lively.

The night staff had a way of informing callers about the sex of the OD "Yes, our doctor is in. SHE will be glad to see you." [Laughs] This warning sent many sailors and MPs to the Naval hospital up the street when they needed treatment of venereal disease. [Laughs]

The Miami area was then very short of pediatricians. One was Theodore [C.] Panos, later the chairman at Arkansas, and the other, with six months training, was myself. I would go forth in the Navy cars, with a chauffeur and all, to perform parenteral therapy or blood transfusions in Ft. Lauderdale or Hollywood. The responsibility was frightening sometimes, but one survives day by day with what one has.

In Miami, I met my future husband. He was a Texan, then a gunnery officer who had served with the Armed Guard on merchant convoys. He was in Miami for amphibious assault training with the marines. This would be hazardous duty. We decided to get married, and then he decided to postpone the marriage because of his dangerous training. He thought it wouldn't be a good idea because he felt he was probably not going to survive. So we decided to get married after the war, and he went off to the Pacific; to Okinawa, the Philippines, and the kamikazes.

After a year in Miami I received orders to accompany the WAVES contingent who were being transported to Hawaii for duty. We gathered in Oakland and then in San Diego. Here I remember the large-scale church services for those heading out to the Pacific and the youth of the worshippers; particularly the service on Christmas Eve 1944.

Also, I can remember the huge WAVES contingent lined up in rows to enter the ship en route to Hawaii, the band and, in particular, the photographers. The latter looked puzzled and with reason. Enlisted women were not allowed to carry suitcases, only a backpack. So, with common consent, they wore all sets of their uniforms, one on top of the other, and hung additional items from their belts. One standing close to me had a thick book, *Forever Amber*, stowed in her bosom! [Laughs] They were all lined up there to go on that ship and a photographer said, "These are the fattest women I ever saw." They did appear unusually large with the spindly legs, because of all the additions in the middle.

We sailed on the Matsonia, first up the coast to Seattle and zigzagged across the Pacific. Most were seasick. As I made rounds, I wondered how so many very seasick girls could stand on a swaying ship to put curlers in their hair. But they did. [Laughs] The chief medical officer on the ship was a Houston obstetrician, a Dr. [Fred Baird] Smith.

From Pearl Harbor, the WAVES were dispersed. I was assigned as physician for the WAVES barracks to direct sick calls, carry out inspections, etc. We had very little illness, mostly fungal infections until after the armistice. Then we began to see a variety of social-emotional problems, sometimes in girls who had escaped bad home situations in the service and must return. Care of the pregnant girls was complex, particularly the few unmarried because they were all promptly discharged. One had total denial; she was so frightened. For these we arranged for care on the mainland and some adoptions.

My last three months in the Navy were spent in downtown New York at the discharge center, examining chests. One faced long lines of chests, examined the front, and asked them to turn around. Three or four times I met people I knew, and I never even said, "Hello." I never looked above the chest! [Laughs] Then I was slated to complete pediatric training.

So then I went to DC [District of Columbia] General [Hospital]. I had applied to Cornell, but was told, very nicely, that they had to take care of five years of their own people. So I didn't get in, although I had thought all along I would go back there.

DR. GARTNER: Their own people being Cornell medical school graduates, or former residents who were drafted?

DR. DESMOND: They weren't that explicit, but I think their own were Cornell graduates.

DR. GARTNER: Before we go on with your training, what was the basis of your decision to go into pediatrics?

DR. DESMOND: I didn't particularly wish to enter pediatrics until I was an intern. Although at Temple we had Waldo [E.] Nelson as professor, he was in his first year but had almost no teaching beds. The affiliation with St. Christopher's [Hospital for Children] was in the future. Although Dr. Nelson's teaching was excellent, we had lots of demonstrations but little patient contact. My widest experience was caring for the babies we delivered on the six-week home delivery service.

END OF SIDE ONE

DR. GARTNER: Continuing with the interview of Dr. Murdina Desmond.

DR. DESMOND: As an intern I really began to enjoy pediatrics.

DR. GARTNER: At Lincoln Hospital.

DR. DESMOND: At Lincoln Hospital. We had a large ward and a very good resident. On admission, we gave those poor children plasma in the buttocks, and they got blood at every provocation. Heaven knows how many girls later had babies with erythroblastosis.

DR. GARTNER: But you hadn't decided on neonatology at that point.

DR. DESMOND: No, I didn't decide on that until going to Gallinger [Municipal] Hospital in Washington, DC. I delayed seeking an appointment as a resident because I was hoping to hear from Jim; we had lost touch. After Okinawa and the Philippines, he had become quite ill with hepatitis. But he reappeared after I had accepted the position at Gallinger. So I went to Washington while he went back to Texas to enter dental college in Houston.

At Gallinger, my mentor and chief was Dr. Lewis K. Sweet, whom I really admired. He ran a large service affiliated with Georgetown and George Washington Universities and supervised the newborn and pediatric nurseries. Experience with him sent me into neonatology.

Dr. Sweet had a large office library available to house staff. Each resident was required to read a basic text and report on it to the others. The book he gave me for study was Clement [A.] Smith [*Physiology of the Newborn Infant*]. That did it! I read and re-read it many times. Dr. Sweet also had books by Windle, Edith Potter and a wide array of journal articles, which he shared fully. I

became fascinated by newborn medicine there, working in the term and premature nurseries. I particularly remember two babies with congenital tuberculosis proven by autopsy. We had a lot of interesting cases there.

Dr. Sweet obtained a grant from the Navy to study the uses of human albumin. This carried a fellowship salary to study protein metabolism in the newborn. He offered this to me in lieu of a second year of residency at Gallinger.

This position was central to my life's work. Along with student teaching and nursery rounds, Dr. Sweet desired two accomplishments: the beginning of a micro-laboratory utilizing small samples and the establishment of a follow-up clinic for sick and/or premature infants.

DR. GARTNER: Microbiology laboratory, or microchemistry?

DR. DESMOND: Microchemistry. The first procedures to be learned were blood proteins. For this task I traveled daily to the biochemistry laboratories of George Washington [University School of Medicine]. Here I learned how to calibrate pipettes, reviewed quantitative analysis again, and learned how to use the Evelyn colorimeter. I met a man that you probably know, Hy [Hyman J.] Zimmerman from Chicago. He was a resident, interested in liver diseases. He taught me how to do liver function tests. He was so enthusiastic about his work on hepatitis and he was a big light in my life at Gallinger. We wrote papers together.

After two months we opened a new pediatric laboratory space, complete with technical help. The laboratory was a joy because of backup from George Washington when problems arose.

The follow-up clinic was a different matter. The public health nurses opposed it fiercely. They wanted to locate it in the neighborhoods. The hospital administration was not in favor of added clinics and refused to assign permanent space. So our clinic moved often. When a move was eminent, I would send postcards to parents telling them where to come. The parents were enormously faithful and the patients very interesting. The situation stabilized gradually. I learned from this how difficult it may be to keep a clinic going. It was much harder than the laboratory. Few will believe that.

During that year, Dr. Clement Smith came and briefly visited the nurseries. I was unable to join them for rounds because I had to attend the clinic in a new space. I missed Clement Smith, and that really disturbed me because I was so anxious to meet him.

DR. GARTNER: The clinic was in the hospital?

DR. DESMOND: In one of the hospital's many outbuildings.

DR. GARTNER: So you forced the space by getting the patients there?

DR. DESMOND: Yes, Dr. Sweet could get temporary space in some old buildings. The hospital at that time had a massive obstetrical population run on alternate days by the services of Dr. [Andrew A.] Marchetti [Georgetown] and Dr. [John L.] Park [George Washington]. They were vitally interested in the nurseries and infant outcome.

DR. GARTNER: Was your clinic the first follow-up clinic for premature infants, or had there been others in the country?

DR. DESMOND: I have no idea. On second thought, our clinic could not be considered pioneering. The Harvard School of Public Health Clinic under Shirley in the 30's comes to mind [Shirley M. Development of immature babies during their first two years. *Child Dev*. 9:34, 1938]. A large literature attests to studies of outcomes [Desmond M, Wilson G, et al. The very low birth weight infant after discharge from intensive care. *Current Problems in Pediatrics.* 1980 Apr:14-40].

DR. GARTNER: It was in what year that you started the follow-up clinic?

DR. DESMOND: 1947.

DR. GARTNER: Why did Dr. Sweet think that you should have a follow-up clinic?

DR. DESMOND: He felt that newborn medicine should extend before and beyond the neonatal period. This was a very short but influential period, followed by continuous growth and development. He defined newborn medicine as encompassing the first year. He was adamant on that point.

Dr. Sweet made up for missing Dr. Clement Smith when Dr. [Ethel C.] Dunham visited. He kept his trainees close to important visitors. We made rounds with them and sat next to them at long lunches. Dr. Dunham asked many questions and took pictures. She was friendly. When her text, *Premature Infants: A Manual for Physicians,* was published, I was delighted to see the picture of a baby from our unit illustrating it.

The meeting with Edith Potter was a little different. She asked me to tell her about our interesting cases. I, unfortunately, described a baby who had bled from the bowel, using the term, "hemorrhagic disease of the newborn." She said, "That entity does not exist." I was a little shaken, but recovered. Aside from that, she was friendly and most instructive, recommending the study of neonatal mortality.

Arvo Ylppö visited and delighted us all. He was about five feet tall and his eyebrows grew straight out like a shelf. He had the most sparkling eyes I had ever seen. We made exhaustive rounds in the premature nursery. As he heard the history and saw the baby, he would jump up and down with joy. His pleasure was remarkable.

Upon completion of the fellowship, Jim and I were married and settled in Houston, Texas. A year later, I came back from Texas to visit the nursery and was told by Leroy Heyck [fellow in newborn medicine] that one of my smallest patients (less than 1000 grams) had retrolental fibroplasia. That really depressed me because I had spent a college summer as a counselor at the New York Institute for the Education of the Blind and knew what blindness meant. Also I realized that in my arrogance I had never really communicated with the baby's mother and had silently presented child and mother with a terrible burden. This fact could not be forgotten easily. Since then, I have always thought in terms of outcome and parents and held follow-up clinics for all infants at risk. I believe the precepts one learns as a fellow remain throughout life.

DR. GARTNER: What year did you get married?

DR. DESMOND: 1948. The year earlier, in 1947, I was interviewed by Dr. Russell [John] Blattner, the newly appointed Chairman of pediatrics at Baylor. Dr. Blattner was young, 39, very enthusiastic about pediatrics but not quite sure whether he would like Texas. The main [Cullen] building had just opened. Dr. Blattner occupied a large room on the first floor with all his pictures, diplomas and boxes on the floor. He said, "Excuse me, but I'm not going to put anything on the wall until I know I'm staying, and I'm not sure I'm staying." [Laughs] He had, as he said, "Very little budget."

DR. GARTNER: You went to Baylor because your husband was here?

DR. DESMOND: Yes, my husband lived here. He was then a sophomore in the dental school.

When I was interviewed by Dr. Blattner in 1947, he asked me what I wanted to do within pediatrics. When I said I wanted to work with the newborn, he was

startled. He just said, "Is that all?" He thought it was mighty peculiar. [Laughs] But he said he would try to find me something in the way of pay and I could join the department in 1948.

He was true to his word and found a job at Ripley House, the settlement house, where I worked and taught students for two years. I also taught part time in biochemistry. In 1950 we got a research grant with salary for me from the March of Dimes for two years. It was 1952 before I really went on the Baylor payroll.

Then in 1950, he told me that he still had very little money. If I were going to do research, I was going to do it cheaply, so figure out what type of investigation costs the least. So I did some figuring out, and figured out that blood glucose was the cheapest, and the easiest procedure. [Laughs] So he bought me a colorimeter and some equipment.

With the support from the March of Dimes, I began studies of neonatal hypoglycemia at Hermann Hospital, the first clinical home of the department. One resident supervised interns there and one worked at the city-county hospital, Jefferson Davis. At Hermann, they converted the bathroom into a laboratory. Drs. Blattner, Fred [M.] Taylor, Florence Heys and myself constituted the department. We used to go to lunch at a nearby Bill Williams Restaurant and sit in a booth and figure out who would give which lectures. That's what I enjoy remembering, because the faculty comprised the four of us at a booth. At one of these sessions, Dr. Blattner handed me some Wetzel grids and assigned me to growth and development. Florence Heys taught microbiology and endocrinology. Fred Taylor did cardiology, hematology, neurology, etc., and Dr. Blattner did infectious disease. These were adventurous times.

In 1950, Baylor affiliated with Jefferson Davis Hospital [JD], the city-county hospital. It was a forward move arranged by Dr. [Michael E.] DeBakey. Dr. Blattner told me to go over and look at the nursery as an area for service and teaching. I went over, and it was appalling. The term nursery was a tiny two-room affair, terribly crowded with cribs but directed with great skill by Juanita Walker, RN. In contrast, the premature nursery center established that year by the Children's Bureau and state health department was spacious and equipped with new isolettes. It was on a different floor, a totally separate enclave. These nurseries were my medical home until 1972.

I have two pictures I want to show you:

The number of deliveries at JD [Jefferson Davis Hospital] over time [Figure 1] and

The premature ward. [Figure 2]

DR. GARTNER: And the sign says "Jefferson Davis premature ward, positively no admittance."

DR. DESMOND: This was the "hands off" period for premature care. It was one of the units planned by the Children's Bureau in the 30's but not implemented until the post-war period. Dr. Mary Fletcher was in charge through 1953. It was a regional rather than a solely hospital unit. I have a pamphlet entitled *Shadows over Texas* describing that premature nursery, which was built in 1950. (The pamphlet is presently located in the Historical Section, Texas Medical Center Library, Houston.)

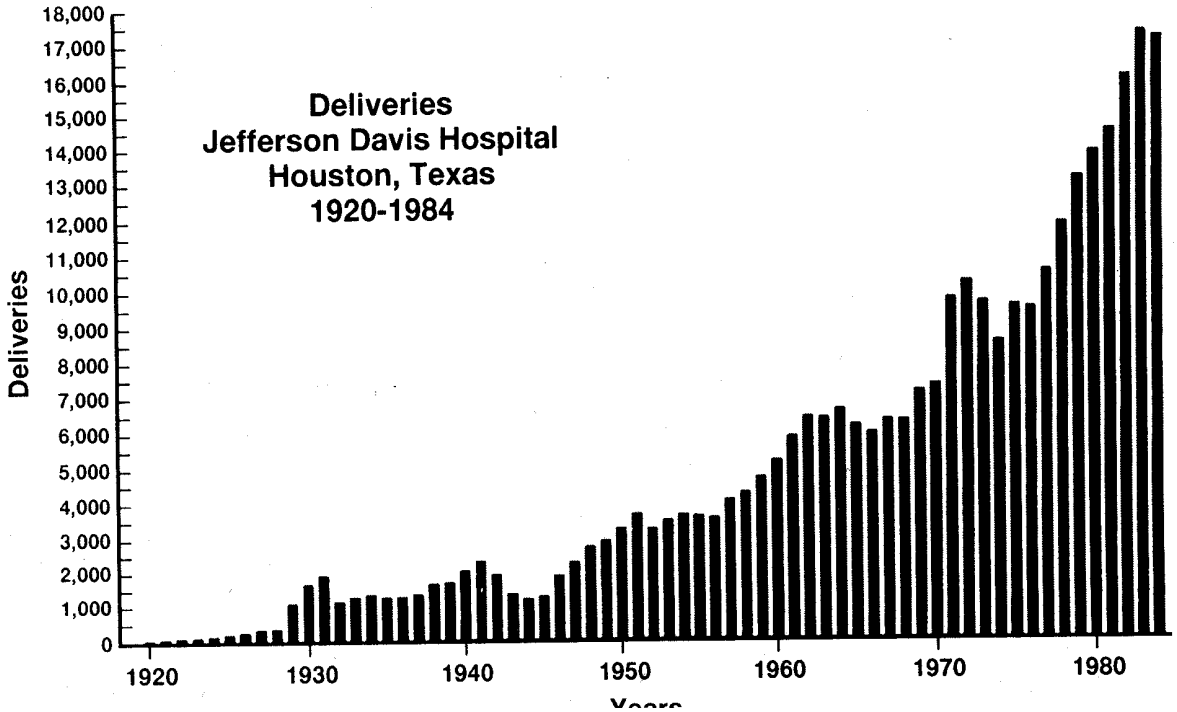

FIGURE 1: Deliveries, Jefferson Davis Hospital, Houston, Texas, 1920-1984
Annual deliveries in a Sun Belt public county hospital from 1920 to 1984. The rapid changes and overall increases reflect the growing population of the catchment area (200,000 in 1920; 600,000 in 1940; 1.4 million in 1960; 2.4 million in 1980). Contributing also were multiple social factors: the Great Depression, WWII, the post-war baby boom, the advent of birth control, immigration, and the closing of voluntary hospital programs due to rising costs in the 1960s.

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FIGURE 2: Premature Center, Jefferson Davis Hospital, Houston, Texas, 1950
This state- and Children's Bureau-supported center was planned as a resource for care and professional training within the region. Parents viewed their infants through glass windows during visiting hours and dressed then at discharge in the alcove between the outside and inside doors. Public health nurses assisted in preparing the home for the infant. The forbidding door sign ("Positively No Admittance") was characteristic of the "hands-off" period of premature infant care (Author's collection).

Reprinted with permission from: Desmond MM. *Newborn Medicine and Society: European Background and American Practice, 1750-1975*. Austin, TX: Eakin Publications, 1998.

DR. GARTNER: And that premature nursery was established in what year?

DR. DESMOND: 1950.

DR. GARTNER: 1950. And that was with federal money?

DR. DESMOND: Federal money to state.

DR. GARTNER: To the county. And how large was that nursery, how many beds?

DR. DESMOND: About 25.

Dr. Fletcher was involved in the study of retrolental fibroplasia and later changed careers to become an ophthalmologist.

JD Hospital was a gloomy place when I was going there. In 1950, we had no resident in the nursery; an intern attended on weekly rotation. In 1953, we were assigned a resident and, in preparation for that, I wrote a nursery service manual. Going back to that manual, it is amazing how much space is devoted to jaundice and exchange transfusion. [Laughs]

DR. GARTNER: A big part of our lives in that period. Mary Fletcher was a practicing pediatrician with a private practice?

DR. DESMOND: Yes. She was a general pediatrician, and she became vitally interested in retrolental fibroplasia and its natural history. She did some excellent articles on it, including a paper describing the stages of the disease.

At this time I worked almost entirely at JD while maintaining an office and minor duties in the biochemistry department and working with pediatric residents when called. My office lab was in biochemistry, because I was informally part of biochemistry. I did the quiz sections for the students; I did little things for my room and board. I also continued work on hypoglycemia.

In 1956-57, the Newborn Service at JD was visited by outbreaks of antibiotic-resistant staph [staphylococcus aureus] infections. We had the mother of all staph epidemics at JD and we were ringed by the media and reported adversely in *Time Magazine*. By this time I had children. The reporters called us up in the night and greeted us at our front doors in the early morning. We were accused of running a pest house and worse. Babies were returning to the hospital with mastitis and cellulitis or, if the hospital stay was lengthy,

developing lesions in the hospital. It took us a long time to realize that such epidemics were widespread in the United States.

Actually, a fine method for handling such epidemics grew out of that experience, worked out by Ellard [Yow] and Martha [D.] Yow, our leaders in infectious disease. One day Ellard called us up and said, "I want you girls to come over here to Baylor, and meet in my office." Martha was annoyed; she thought he was presumptuous because he wouldn't tell us why. At that point, we were both discouraged and exhausted. We met Ellard at his office and he said, "All right, I just wanted to get you out of the place for awhile. I've been figuring out what to do." He presented an infection control plan, which we translated into action with the help of Elinor Hamner, RN [nursing director].

DR. GARTNER: What was the plan like?

DR. DESMOND: It had several steps:

1) **Isolate the patients. You set up separate hospital areas for the sick, the exposed and new admissions. These areas require separate staffs. No crossovers.**
2) **Public health nurses check up on discharged patients in homes or clinics.**
3) **Set up a standing hospital infection control committee.**
4) **Daily reporting of all hospital infections by an infection control nurse to the central committee.**

Ellard wrote it up and it's still being used. [Yow EH, Yow MD, et al. Management of hospital acquired staphylococcus infection. *Arch Int Med* 1958; 102:948-54.]

Well, the epidemic gradually came under control, and I learned several things from it. It had been devastating but highly instructive. Overall, we had 250 involved infants with 20 deaths spanning two years [fall through spring]. To my amazement, when it was all over and I was figuring the mortality statistics, there wasn't even a blip on the neonatal mortality curve for that period because the epidemic was spread out over two years. However, the morbidity was high.

After that, I became interested in morbidity. It was clear that you had to have a catastrophe to change the infant mortality curve. The only event that really produced a blip on infant mortality was the influenza epidemic of 1918. I began to think in terms of reporting morbidity as well as mortality.

Also as a result of the epidemic, we finally persuaded the Dean that we had to close down or change matters. Let me diverge a little bit. We had a nurse there, Miss Hamner, Elinor Hamner, who was a really creative and gifted nurse. She was head nurse at JD while we had the epidemic and she invited me to go and make her rounds with her. Every morning she made entire rounds of the hospital, and sometimes I'd go with her. And every day I met with her and her nurses over coffee at 10:00 am., and told them what the status of the epidemic was and the names of those involved. And she took this information and she would work on it.

Miss Hamner then sent a nurse to Yale to study rooming-in. We were unable to benefit from this plan because increased nursing time was required and the babies went to the mothers after only 24 hours. We were short of nurses and our mothers were going home at or before 24 hours post-delivery, if uncomplicated; generally eight hours for multiparas.

Together with obstetrics, we set up a local program called joint recovery for mothers and babies wherein they were together until discharge. We would be called to the delivery room, catch the baby and examine it. Once the mother and baby were believed to be progressing nicely, they were transferred together to a temporary building where the baby and the mother were nursed side-by-side until discharged. The time of discharge varied with the census. I wanted to call it joint recovery since it wasn't standard rooming-in.

This was where I began to think about transition and realized that I knew very little about the clinical status of newly delivered infants. I was accustomed to counting vital signs with a stopwatch. The vital signs and behavior of some babies was strange to me: very high or low heart and respiratory rates, brief episodes of irregular or apneic respiration. The residents passed the baby; I was the one holding things up.

What I learned was that neither I nor the residents knew much about the newborn. Their temperatures were weird; and their pulses, heart rates, the works, were very peculiar; and their respiration was irregular. They were having transient respiratory distress, doing all kinds of interesting things. So I would panic and say, "Let's hold this baby a little while." [Laughs] And the residents weren't all that happy when I was around!

I went to the library and I learned that the French had noted the same peculiarities in the early 19th century. In any case, the mothers went home in eight hours if all was well. We were able to do this because Houston had a devoted corps of public health nurses who visited mothers and babies in their homes the following day.

DR. GARTNER: Did they keep going back afterward?

DR. DESMOND: Yes, if problems arose. The public health nurses also came to our clinic. Somehow the plan worked.

DR. GARTNER: Interesting. We're getting back to that. And you were doing this routinely for thousands of deliveries?

DR. DESMOND: We did it.

DR. GARTNER: For how many years?

DR. DESMOND: We didn't do it forever. We were able to lengthen the hospital stay when Ben Taub [General Hospital] opened in 1962. And a new, much expanded nursery was built at JD in 1960.

DR. GARTNER: They stayed in the hospital for how long?

DR. DESMOND: At peak times of the year (July through September), multiparas went home at 24 hours, primiparas at 48.

DR. GARTNER: And the mothers and babies stayed together in the hospital?

DR. DESMOND: Yes, until the services obtained additional beds in 1960. Mother and baby stayed together, and the nurse took care of them both. They had joint nursing until 1960.

Another occasional but pressing problem was sudden collapse or sudden death in the nursery of an infant thought to be doing well. We had the cohort system, and I didn't like it because the baby was too far away from help. Dr. Jacob Kay, one of our first fellows, and I designed the new expanded nursery. We decided against the cohort system because the baby was too far from the nurse for adequate observation. Our new nurseries had the nurse stationed in the middle of a large area. This was heresy at the time, but prevailed with the support of Drs. Blattner and [Charles William] Daeschner.

Then I went to the Dean [Dr. Stanley F. Olson] with Dr. Blattner's encouragement and asked if I could apply for some grants. I talked to Dr. Olson, who told me something that was very helpful. He said, "Murdina, your sweet soprano is going to get you nowhere. Reduce your problems to graphs and charts and we'll talk." This was not difficult since I had always kept statistics, another step in education.

I wished very much to consider a newborn as a recovering patient, recovering from the stresses of birth, anesthesia (if given), and maternal medications or disease. The nursery would be managed like a post-surgical recovery room. A baby born under anesthesia could not be considered normal until recovery was over. This plan was sketched out for the Dean and the [John A.] Hartford Foundation.

Prior to this, but after the epidemic, Dr. Blattner arranged for me to spend a month touring nurseries in the East in preparation for planning a new nursery. Like other staff, I had become a temporary carrier but was now free of infection. I took the children to my mother's and went to Boston. To my amazement they were having the same problem with antibiotic-resistant staph infections there, only they didn't talk about it.

DR. GARTNER: And that was what year that you went to Boston?

DR. DESMOND: 1958 or 1959. On leaving Houston, one found such infection widespread in general hospitals, but less in obstetrical hospitals. I had earlier been at a meeting where Dr. [A. F.] Hardyment reported a large incidence in Canada. In the discussion, Drs. Stewart [H.] Clifford and Edith Potter got up and lacerated him, were severely critical, suggesting he ran a dirty nursery. Out of sympathy, I decided to tell him about our experience in Houston. When I finally found him and told him, he said I was the seventh person who had approached him. "It's everywhere, and dirt is not the cause." He was smiling.

Harvard, when I visited, was a nest of eagles. Mary Ellen [Avery], Peter Auld, [Arnold] Jack Rudolph, Abe [Abraham M.] Rudolph and Ruth Cherry. Mary Ellen was involved in her definitive work on surface tension, and the whole group was deeply involved in respiratory distress.

Kurt Benirschke was my main contact person in Boston. When I went to see him, he said, "Is that *the* Murdina Desmond?" So his secretary said, "Yes, that's *the* Murdina Desmond." He said, "Tell her sit down I'll be right there." I was thrilled because our morale was in awful shape. We had written about this epidemic and we had consulted on it, but we were pretty discouraged. Well, I met these people here and had a very good time. Dr. Benirschke gave me a lot of good information from his studies of placental and cord infection.

Dr. [Clement A.] Smith was very gracious and welcoming. One aspect of the visit was a surprise and interesting. They were at the beginning of the collaborative project, which was not popular with the neonatal group or Dr.

Smith; it seemed so massive and involved so many people. I wanted to spend time with the project neurologist and he didn't think it would be profitable. I'm afraid I went anyway and spent a delightful day with [T.] Berry Brazelton. We spent a whole day in the nursery examining babies and working on language to describe infant behavior

Then I went on to [Johns] Hopkins [Hospital] where Marvin Cornblath was in charge. Marvin also raised my confidence. When we went into Marvin's nursery, Dr. [Harry H.] Gordon wasn't available. Marvin said, "Are you the Murdina that writes about hypoglycemia?" I said, "Yes, I am." So we had a marvelous time discussing glucose metabolism and he showed me his unit and he's been my friend ever since.

This trip was a blessing. I found, as did Dr. Blattner and Ellard and Martha, that while our JD group was viewed suspiciously at home in regard to staph infection, we were authorities outside. Our one set of slides was in continuous use. We had become consultants.

When I returned from the trip, I went to see the Dean. I had written a preliminary outline for a grant, for his approval, which he said he would read. Well, about a month later, Dr. Blattner called and said, "You've gotten a grant, from the John A. Hartford." I told Dr. Blattner, "I haven't applied for a grant." Well it seems Dr. Olson sent in my preliminary outline, and all I had to do was get DeBakey's approval.

It was hard to get DeBakey's approval; he was so busy. I asked his residents how to approach him. I stood in the hall in between patients and had the outline on a sheet describing what we wanted to do. It described how the newborn was a recovering patient, the problems often surgical (shock hemorrhage, injury). Ergo a nursery should have a recovery room. I showed it to him and he said, "Right." [Laughs] And so we obtained a grant from the Hartford Foundation. So I started studying clinical behavior of the newborn.

END OF TAPE ONE

DR. GARTNER: Continuing the interview with Dr. Murdina Desmond, this is tape number two, side A. What I would like to do is go back to some questions about your marriage and family, because in this period of time that you'd been developing as a neonatologist you also got married and had some children.

DR. DESMOND: With our marriage in 1948, we came to Houston where Jim was a dental student. We were very broke at the time and it was very hot

in those non-air-conditioned days, but we were very happy and comfortable with each other. After graduation he began practice in Houston.

Jim loved Texas. I know when I asked him his politics, he laughed because I should know that everybody in Texas was a Democrat. When I asked him his religion when I first met him, he laughed and said, "You know everybody is a Baptist." So he was a standard West Texan, and a very nice person.

We had two children, Margaret in 1953 and Jimmy in 1955. Margaret is now attending a Presbyterian seminary in Austin and Jim is an accountant in Las Vegas.

DR. GARTNER: Tell me a little bit about how your husband felt about your pursuing a full-time academic and medical career. What was his attitude toward that?

DR. DESMOND: Jim was most generous about my work. He understood my need for it. We were elderly parents, beginning at 37 and 41 years of age, and delighted to have children.

From the beginning, he was quick to help with the baby and to encourage me in times of difficulty. When the child first vomited, I was accustomed to it, but he wasn't. I remember his pallor and nausea. But he persevered. I thought he was very generous of the soul.

DR. GARTNER: So he was always supportive of your career.

DR. DESMOND: Yes, indeed. We went solo to professional activities at night, so that one of us was always at home.

DR. GARTNER: How much time did you take off from your work when you had your children and what were the attitudes at Baylor?

DR. DESMOND: Well, actually, I had lost two pregnancies before Margaret was born. I think the whole department was pulling for me. After Margaret was born, I took off for a month. Then, I attempted half time. It didn't work out well; it was hard to maintain and very expensive so it was back to full-time. We always had good help at home, which eased life considerably.

DR. GARTNER: All the way through?

DR. DESMOND: Our first maid worked with us for 18 years before she retired. Also, the department was sympathetic to pregnant ladies. Dr. Blattner

liked to say that no matter how loud complaints were, if couples were building houses and having babies all was well.

Then in 1969, Jim developed cancer of the duodenum. He had widespread metastasis and was expected to live only a few months, but lived in great pain for two and one-half years. He was written up in the literature as the longest survivor. During this time, our children were teenagers and we were very stressed as a family.

DR. GARTNER: I can imagine. What year did he die?

DR. DESMOND: 1972.

In the meantime, our nursery population grew as did our section. Drs. Jacob Kay and Reba Hill were the early instructors. Dr. Kay left in 1961 to establish a newborn service in Oklahoma and Reba Hill became head of newborn research at St. Luke's Hospital in the Texas Medical Center. Then [Arnold] Jack Rudolph came. Jack is, I think, one of the best clinicians in the world, terrific. He likes to teach and is a great teacher.

In 1960-61, at JD, Drs. Kay and Hill worked with me on the neurologic examination of the newborn and the Hartford Project for a transitional care nursery. Reba began her research on maternal drug effects. With Drs. Robert Franklin and Alan Alexander, obstetricians, we began to monitor deliveries and to chart the clinical behavior of infants from birth. In the first year of the project, we emphasized monitoring of the term infants born following an uncomplicated delivery and Apgar score between seven and ten at one minute. These we called "standard" infants. After the second year of the project (1962), we were joined by Jack Rudolph who had returned to Africa after his Boston fellowship with Dr. Smith. He was particularly interested in the adaptation of the premature.

The Hartford support of the early hours of life was a most exciting project. In 1960, when our new nursery was complete, we had a study nursery with one or two beds, the polygraph, a desk and a group of research nurses who had served as general or surgical nurses, but not on maternity services. It was easier for such a group to see babies as "recovering." Medical students and the physiology faculty, particularly Carlos Vallbona, initiated us into the mysteries of electronic monitoring. The obstetrical staff were already versed in the area.

Jack Rudolph was truly gifted, not only in teaching but also in the use of electronic technology. His expertise in radiology and photography added much to our program, as did his focus on cardiorespiratory problems.

In 1964-65, we had a rubella epidemic in the Houston area. It became evident first at Jefferson Davis Hospital, which has always acted as a sentinel hospital for the community. Over 200 babies were eventually involved. At JD we had a separate rubella ward and, at the suggestion of Martha Yow, a protocol for study and care through the newly established Clinical Research Center at Texas Children's Hospital (TCH). With Dr. Blattner's help, we began a multidisciplinary clinic at TCH to follow the first hundred. This group had extensive viral studies. The Drs. [Joseph L.] Melnick, Rebecca Pineda Schwanecke and Geraldine Wilson contributed mightily to these efforts.

In 1967, a Maternal-Infant-Care (MIC) grant was awarded to the Health Department, the medical school and JD Hospital, providing for the care of high-risk mothers and infants up to one year of age. At the same time, the Hartford grant expired. The changes in the newborn service were dramatic, with the addition of a transitional care nursery, an intensive care nursery and a high-risk infant clinic. Dr. Rudolph assumed direction of the intensive care nursery, and Dr. Schwanecke and Wilson the high-risk clinics. Both areas expanded hugely, with rows of babies on respirators. It was a regional referral unit. The post nursery clinics ran five days weekly with special clinics held for low-birthweight, genetic problems, infectious disease, and infants with drug problems.

In early 1972, Dr. Blattner offered me a position as the section head for developmental pediatrics. I was ready to leave JD provided I could still incorporate nursery follow-up. I had learned how to operate positive pressure respirators and the Astrup with some difficulty and was not at all confident with them. My husband who was then terminally ill was especially pleased that I would be going, in his words, "uptown" to Texas Children's and close to our home.

DR. GARTNER: How did the children feel when you changed your role and went uptown?

DR. DESMOND: At the time the new role started, in 1972, we were all devastated. Margaret was in college, an art major active in "new age" circles. Jimmy, in high school, was deeply into sports. I sought psychiatric counsel. Margaret's college buddies came to stay with us often. Somehow, we managed. I don't remember any particular reaction to the job change, except that they were both happy to work in hospitals on vacations and liked to drop in at TCH. Learning to work in a new field in a new setting was very therapeutic for me.

Margaret began in art, switched to industrial design and worked for a design firm in New York for over 10 years. Then she became a Presbyterian minister. Jim went into business. Neither one wanted medicine or dentistry.

DR. GARTNER: Well, let me go back to some questions. Let me talk a little bit about some of the issues about pediatrics in general. How do you think pediatrics in general has changed from the time you started, say in the '50's, late '40's, until now? What have been the major shifts that you see?

DR. DESMOND: Well it's gone from specialty to primary care.

DR. GARTNER: Recently?

DR. DESMOND: When did it shift to primary care? At least ten years ago, isn't it, when it became officially one of the primary care areas along with family practice, OB/GYN and internal medicine. Pediatrics may now be in a bind because it is composed of so many subspecialists with relatively few training in general pediatrics.

DR. GARTNER: That wasn't true when you started out?

DR. DESMOND: No. After the '50's, training in the subspecialties of pediatrics mushroomed. I remember that in our department at Baylor the only generalist on full-time faculty was Dr. Fred Taylor. He was a general pediatrician, and I remember him telling me, "The more specialties we get, the more they take away from me." [Laughs]

In 1948-50, four of us gave most of the lectures in pediatrics. Then, Dr. Bill [Charles William] Daeschner came and taught in the renal-metabolic areas, Dr. George Clayton in endocrinology, Dr. [Dan] McNamara cardiology, and Dr. Fernbach hematology, etc. The department was increasingly peopled by subspecialists.

One change in neonatology disturbs me a little. The subspecialty speaks for the ill neonate and the low-birthweight infant, not for <u>all</u> the babies. Fellows and residents remain almost entirely in Levels III and II.

DR. GARTNER: Newborn meaning the full term.

DR. DESMOND: All births. Others, who are non-neonatologists, separate the sick babies from the well and refer them on. Dr. Sweet used to talk about that. "What is this baby telling us? Let us look and find out." On rounds he would make us stand there and I remember my feet hurting. We would observe

the baby, hoping the baby could communicate nonverbally and express what was wrong with him. One of the hardest things in pediatrics is deciding whether a given baby in a newborn nursery is sick or not. You don't learn that in intensive care.

DR. GARTNER: How about the major scientific changes that have occurred in pediatrics in general? What are the big things that have changed from a scientific perspective, as you see it?

DR. DESMOND: Well we've gone from the chromosome to the gene. It looks like all the basic sciences are one, now. They're all molecular biology.

DR. GARTNER: How has this impacted on pediatrics? What is that going to hold for us?

DR. DESMOND: I don't know. The academician today must be research-oriented and productive to move up in the hierarchy. The management of complex clinical problems after diagnosis involves the participation of multidisciplinary teams in addition to the primary care physician. The separation between practicing clinicians and academic subspecialists may be increasing.

DR. GARTNER: Tell me a little bit about your own involvement with the [American] Academy of Pediatrics.

DR. DESMOND: I didn't join it for years because of the expense. Jim and I had a double dose of society dues. Nor did I often attend meetings because I could only afford one meeting a year and that was SPR [Society for Pediatric Research]. I've always enjoyed the Academy and have often been at meetings in recent years. I enjoy the broad view of the Academy.

DR. GARTNER: Were there any national societies that you were involved in? You said you went to the SPR meetings. Were you involved in any way in any of their awards or committees?

DR. DESMOND: I was involved with the associations for cerebral palsy, mental retardation, the Lighthouse in Houston. I was otherwise involved in little outside of home and Baylor. As for awards, the Apgar Award came to this astonished recipient in 1989.

DR. GARTNER: I'm going to now turn to questions about neonatology in a broad area. One of the questions we all ask ourselves is what's the earliest recollection

you have of labeling yourself as a neonatologist? When did you think of yourself as a newborn doctor, and when did you give it the label neonatology?

DR. DESMOND: When I became a fellow working with the newborn. Well, when I came to Baylor in 1948, Dr. Blattner would introduce me by saying, "She works with the newborn; she's a baby doctor".

DR. GARTNER: So that was when you got labeled. Now when did the term neonatology come into use?

DR. DESMOND: With [Alexander] Schaffer in 1960. However, the name I preferred came from Dr. Dick [Richard L.] Day. He frequently visited Baylor and on one of his visits he said, "You're a baby watcher, and so is [Robert] Usher." That suited me fine.

DR. GARTNER: I bet. [Laughs] Well, I think you told us a lot about why you chose newborn care and the support that you got, the people. Are there any other people who particularly urged you into neonatology as a field?

DR. DESMOND: [Arthur H.] Parmalee, Sr. On a visit to Baylor, he spent a day with us demonstrating how to examine babies. Hermann Johnson, the Chairman of Obstetrics and Gynecology at Baylor. He invited me to attend the monthly OB conferences to report on infant statistics and special cases and gave me an appointment in obstetrics. Dr. Schufler Kohl of Downstate Medical Center, New York, came down in regard to grants and became a long-term friend. He introduced me to the 80-column card. Stanley James was always available on the phone to offer help.

Lastly, Jacob Kay, one of our residents, was anxious to be a fellow in newborn medicine and was instrumental in beginning our fellowship program.

DR. GARTNER: What year was it that he eventually began your fellowship program?

DR. DESMOND: About 1959. We began with Clemmie Everly [Moore] and Jacob Kay. Reba Hill came as a fellow-instructor in 1959-60, after a year with Drs. [Allen C.] Barnes and [John H.] Kennell in Cleveland. Jack Rudolph joined us in 1962.

DR. GARTNER: He came as a fellow too?

DR. DESMOND: No, as an assistant professor. He had completed two years with Clement Smith, besides eight years in private practice. He was

working on the report of a meeting on respiratory distress held at an SPR meeting and had been one of the investigators on an early study of the Apgar score. This study reached slightly different conclusions from those of Virginia, probably (according to Jack) because of differences in the use of barbiturates and anesthesia during labor and delivery. It was heavy in Boston, light at Columbia. So Clement Smith and Virginia Apgar were a little wary of each other and Jack was not entirely popular in New York. Virginia Apgar, on the other hand, was very happy with us, as our maternity unit had begun use of her score in 1953, six months after its publication. So as our methods were more like New York's, Jack immediately began to collate Apgar scores to recheck his hypothesis. We often laughed over his Boston involvement versus my New York involvement. He was right; our neonatal mortality data virtually matched that of Dr. Apgar.

DR. GARTNER: That broadened your Houston horizons.

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DR. DESMOND: It did that. Jack succeeded me as head of the section in 1972.

DR. GARTNER: What are your thoughts or feelings about the evolution of neonatology as a separate subspecialty, a separate discipline? Did you think that was something you wanted to see? How did you feel about that?

DR. DESMOND: The evolution of neonatology as a subspecialty was inevitable, given the rapid increase of knowledge and technology necessary to practice it successfully.

However, it cannot stand alone; it is linked to obstetrics. The process of being born is a continuous process presided over by more than one discipline. I view neonatology as the product of three streams of medical thought: obstetrical, pediatric and public health. These are respectively the medical parents (OB and pediatrics) and the guardian (public health) of the newborn. [This is schematically represented in Figure 3, from *Newborn Medicine and Society: European Background and American Practice*.]

DR. GARTNER: Now what's happening down here, in the 20th century?

DR. DESMOND: Two subspecialties are recognized: fetal perinatal medicine and neonatal perinatal medicine.

DR. GARTNER: All coming together.

DR. DESMOND: A fault line appears between obstetrics and pediatrics, existing during the immediate transition period. Eruptions tend to occur at this point, the point of transferred knowledge and responsibility. To learn in the field, the obstetrician must look forward toward infancy, and the pediatrician must look back at fetal life. Both inhabit delivery rooms.

It is true that neonatologists may complain about obstetricians. They say, "Oh, they won't give steroids," or, "They won't do this or that," and so forth. And the obstetricians complain about pediatricians because they keep everybody alive. And I wonder how often a nice meeting ground exists.

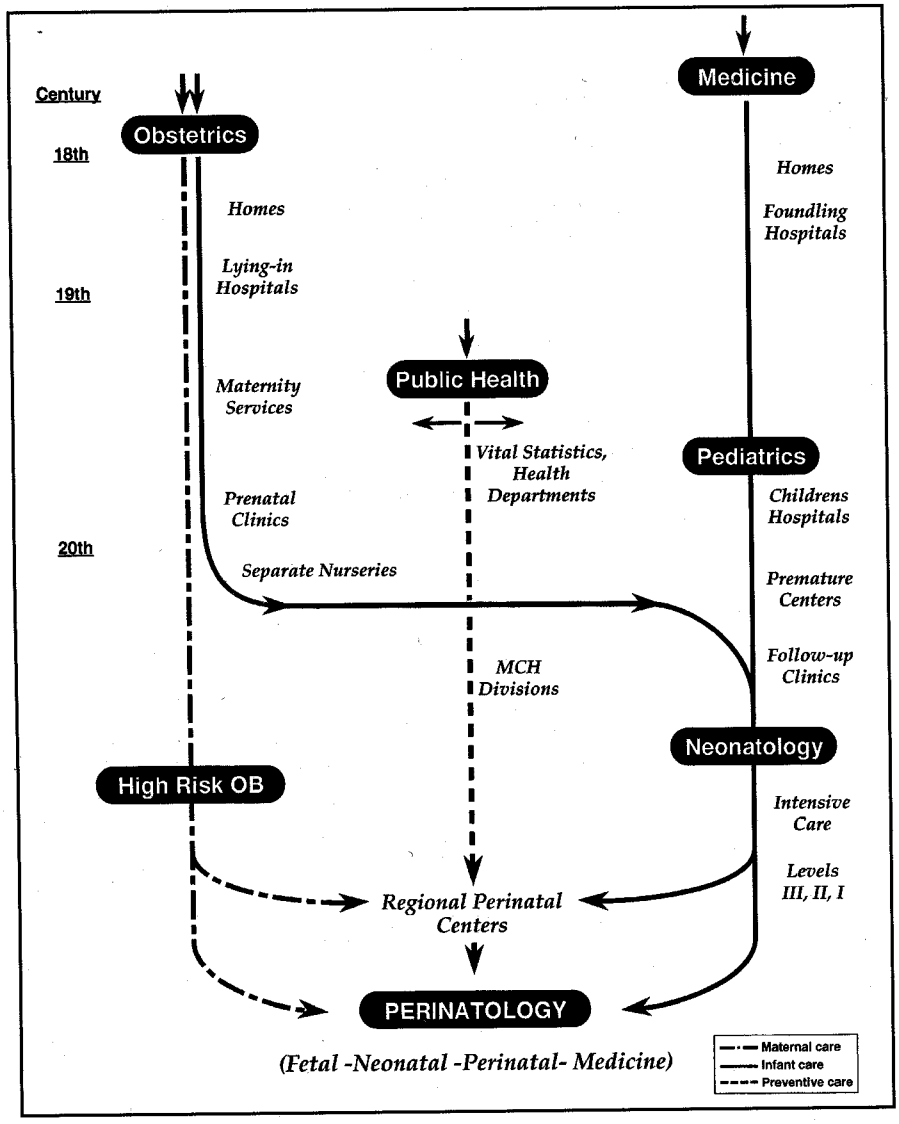

FIGURE 3: Newborn medicine has evolved through interaction of three disciplines: obstetrics, general medicine (later pediatrics), and public health. Obstetrics and pediatrics are its parents, and public health its guardian. Integration began with the infant welfare movement of the late 19th century. Obstetrics relinquished supervision of hospital nurseries to pediatrics after WWI, while public health promoted parental education and disease prevention. After WWII high risk obstetrics, technology, and intensive care advanced, bringing major change as disciplines joined to provide regionalized perinatal centers and a continuum of maternal-infant care.

Reprinted with permission from: Desmond MM. *Newborn Medicine and Society: European Background and American Practice, 1750-1975*. Austin, TX: Eakin Publications, 1998.

So while the evolution of neonatology was inevitable given medical progress, and is enormously successful, it encompasses more than care of the delivered newborn. Communication with obstetrics is less difficult in maternity hospitals and general hospitals. But units for the compromised newborn are increasingly located in children's hospitals, to take advantage of the presence of other pediatric subspecialties and the available laboratories. Thus, maintaining continuity of care has not become easier at the present time.

If neonatology has a problem, it is in its <u>isolation</u>. The original Board [for Neonatal-Perinatal Medicine] called for training in research but not in follow-up. I understand that this has been to some extent corrected. I hope so because experience in follow-up provides an anlage for making these difficult ethical and treatment decisions in delivery room and nursery. This experience will be most helpful if the physician keeps track of his own patients. Up to now, only a few neonatologists have followed their own along with the family pediatricians.

Jack Rudolph, Reba Hill, and Jim [James M.] Adams helped set up a follow-up clinic that is now called after me, which I appreciate very much. While I was at the Myer Center [for Developmental Pediatrics] I would go up to the Nursery at Children's, read the admission book, get the babies' admissions book, find them, and then I would follow them. I followed them by gestational age, not by birthdates. Because my still unfinished work, and I'll never finish it, is following a baby in the nursery guided by its gestational age. When the baby has reached 36 weeks and it's in the nursery, I check him against 36-week standards. Is he a 36-week equivalent or not? Is his clinical behavior now equal to 36 weeks? That's the way I always checked out the babies in the nursery, to go to the parent, or to attend our follow-up clinic.

The pediatric residents were not initially interested. I remember overhearing one of them and becoming upset. He was saying, "Oh, that baby's good for nothing but the developmental list." That was frightening, said about someone's baby. I feel that training has erred in that neonatology does not sufficiently consider functioning of the patient outside of the nursery door.

DR. GARTNER: Do you think it's now changing?

DR. DESMOND: I think it's moving in that direction. In the past, we have not emphasized how much parents dread having retarded children. Often in their hopelessness parents develop a terrible anger; their box is closed. It is hard for them to express their fears in the nursery. Physicians may interpret

silence as a desire to preserve all life. Husband and wife may have different agendas.

DR. GARTNER: What about the economics of neonatology? Where has that gone over the years and where is it going to go in the future? We're a very expensive operation.

DR. DESMOND: Having a baby today is expensive. Having a sick or low birthweight infant is an economic catastrophe. Parents have children when they are young, maybe 25-27 years old, and at the bottom of their earning capacity. In Houston, a quarter or more of families have no health insurance. One of the tragedies of medicine today is that bills are sent out by the hospital, the physician has nothing to do with the bill and is unaware of how large it is. He may not know the current cost of the procedures and the consultations he orders. The parent is not consulted. After discharge, the parent faces a snowstorm of bills, sometimes a lifetime mountain of debt and financial obligations.

Again, I think if you have good follow-up, you'll know when to stop treatment. If you get in the habit of following a child in the nursery, following him out, you'll know when to stop. You won't be perfect, but you'll be better. The situation is critical.

It's these teams that cost so much. I know when I first started at the Myer Center in 1972; I was following a preemie. As I went to the parent conference, the father looked me in the eyeballs and he said, "Well, doctor, I spent $50,000 on this. What am I getting?" [Laughs] I almost fell over. He was a banker. Believe me, that baby had a small head and I didn't know what to say.

The other thing is, the family is charged for a developmental physical when the baby is discharged. The parents want to know what you found out, and there's no way you can tell them. I used to go wild with that, because I'd say, "Well the baby is 38 weeks now, it's acting like 38 weeks." Or, "The baby is 40 weeks but the baby is acting like 38, however I think in view of this it's going to catch up, so let's follow progress, etc." I don't think hospitals should charge for that. The parents have a right to ask you for the current status.

DR. GARTNER: Can you give that?

DR. DESMOND: No, you can't entirely, but you must be honest. You can tell them, your child has a grade four IVH [intraventricular hemorrhage] and is at risk for cerebral palsy and multiple problems. I know when they started the ECMO [extracorporeal membrane oxygenation] program I stopped going to the

ethics committee; I was such an embarrassment. In the ECMO procedure they alter the circulation of one-half of the brain and one needs both sides of the brain to read. So I used to say, "Where's your follow-up, where's your follow-up?" And they didn't do it. They answer, "Oh, but they come from out of town." And I say, "How are you going to know?" "Oh, we'll find out," but they didn't. Later, they started a follow-up clinic, all of a sudden. I don't know why; it wasn't my influence because I'd been screaming for years. It was some outside force. They started a follow-up clinic and it's going fine.

DR. GARTNER: How about the economics for the neonatologist, the salaries and all of that?

DR. DESMOND: I don't know much about that. I recently went to a perinatal meeting where a discussion was held concerning the high salaries of those working in private, for-profit hospitals. They were in line with surgical salaries more than with medical.

DR. GARTNER: Do you think that's wrong, or an inevitability?

DR. DESMOND: I always tried to stay away from that. In the early day, women at Baylor had low salaries. But I wanted to stay at Baylor, so I took what was given and tried to keep quiet. In the late 70s this situation improved considerably. Have you by chance asked these questions of a chairman, say Ralph [D. Feigin]?

DR. GARTNER: No, I haven't asked.

DR. DESMOND: Do you know Ralph? He's a joy in my life. Baylor grew with no strong center, just strong individual departments. The first president had a chronic heart failure. And then Dean Olson wanted to make Baylor a national school; he was not as concerned about salary scales. Dr. Feigin is now President, and I think he's going to help Baylor.

There was no salary scale at Baylor. It was whatever the chairman wanted. And in surgery, I understand, the physician kept half of the fees. Ralph has been dealing with that. He's having a--I don't know what time he's having, but I imagine it's busy.

DR. GARTNER: Do you think he'll change neonatology salaries? Do you think he'd like to?

DR. DESMOND: I have never discussed neonatology salaries with him or Dr. [Leonard] Weisman. From what I heard, however, it's not the academic

neonatologists who are rumored to make very high salaries. It is those who work in for-profits.

END OF SIDE OF TAPE

DR. GARTNER: This is tape 2, side B. Murdina, I'd like to ask you to think about your contributions to neonatology, and what you've done that has made the biggest impact in changing neonatology, making neonatology what it is today.

DR. DESMOND: Understanding that a baby at birth is not only adapting, but recovering from the delivery process, maternal analgesics/anesthesia, maternal disease, etc. The baby should be watched, as the process is not always benign.

This was particularly interesting in regard to respiratory distress. The diagnosis in the 1950s was often based on rapid breathing. But if one watched the baby, it was evident the rate became more rapid as the color improved and the baby began to move. An increased rate might mean recovery.

Study of progression or pattern of diseases permits <u>anticipatory care</u>. Realizing what may follow, one may prepare in advance. For example, babies of drug-addicted mothers may appear depressed or normal early, but when the drug level falls in the baby withdrawal begins and therapy may be needed.

Infants with birth asphyxia may recover from depression to irritability to seizure. Medication could be ready in advance. Infants with hypotension and dyspnea recover to improved circulation, rapid breathing, jaundice, irregular breathing and perhaps apneic attacks. Demonstrating such a sequence is most helpful to parents, as they can follow progress, too.

DR. GARTNER: Those are the major areas where your work has been acted on.

DR. DESMOND: Yes, with the addition of congenital infections. When the rubella epidemic came to Houston in 1964, we were deep into a study of neurologic evaluation of the infant. Our exam was coded and complete but emphasized neurologic findings. Suddenly with rubella, we were responsible for a new and different group of patients. Our granting agency, the Hartford Foundation, permitted us to switch to a study of rubella. We continued to use the neurologic exam outline.

The startling finding with congenital rubella babies was how neurologically involved they were from the beginning, exhibiting behaviors which were hitherto unrecognized by us. Rubella encephalitis was a big factor in these patients.

DR. GARTNER: That's certainly a major contribution.

DR. DESMOND: In these babies, the deafness was progressive in many over time. Study of this handicap propelled us into the middle of the oral versus sign training feuds in education. Oral training was the only type available in Houston in the 1960s. However, as the children grew older, they sought out sign training out of a desperate need to communicate, particularly with each other. Many did not progress with oral training alone and had non-signing parents. The greatest lesson we learned with rubella babies was that the ability to communicate in any way or combination of ways is central to well-being and family life.

DR. GARTNER: I think that's an important soapbox.

DR. DESMOND: And the other thing it taught me was to study things prospectively and look at the natural history of it, the history starting from the mother. The gestational age at delivery is an important clinical fact but not the only fact. If the pregnancy is at all complicated, the gestational week at which the pregnancy first went awry is also important in considering the health of the infant. The infant may be ill, or ill and recover, long before delivery at *x* weeks.

DR. GARTNER: In the rubella babies?

DR. DESMOND: In all babies. The concept was derived from Peter Gruenwald, embryologist and pathologist, whose writings on the fetus in distress are, to me, a milestone in neonatology.

DR. GARTNER: You've mentioned a number of your collaborators, some of whom were fellows with you and others. You mentioned Martha Yow, and Bill Daeschner and Rudolph, Day, Reba Hill. Is there more you would like to say about collaborators? Are there any we left out?

DR. DESMOND: In the early days as a resident and fellow, Dr. Jacob Kay was devoted to the neurologic aspect, to classification of disease. Dr. Geraldine Wilson studied infant development under Hilda Knobloch and returned to apply these techniques to rubella infants and those with drug addiction.

Two students, Jim Watts and John Rush, were highly influential by nudging me into the electronic age. The students practically lived in the nursery. Carlos Vellbona was an enormous help always.

Now Baylor has changed somewhere. Doubled its class, and when it doubled its class those student-faculty relationships disappeared. Because you can't take around five students everywhere with you, whereas you could take one or two, which is what we had.

DR. GARTNER: How do you feel about the evolution of training in neonatology?

DR. DESMOND: I have not been involved much in this since 1972, when I changed sections to child development. One phenomenon I have observed is that a person working in an acute care setting like an NICU [neonatal intensive care unit] finds it very difficult to work in chronic or follow-up care during the same rotation. The change of pace is too great, and the viewpoint too different. So perhaps these activities might best occupy separate blocks of time.

DR. GARTNER: Do you have any suggestions about where neonatology training ought to be going now, as you look back on your experience?

DR. DESMOND: I believe fellows should meet with parents sitting at a table rather than in a crowded nursery with bells and whistles, and <u>never</u> at the elevator. Parents, if comfortable with their physician, may communicate more openly thus avoiding the buildup of resentments.

Nursery physician rotations are short; a long-term patient (two to four months) changes physicians often. This is difficult for parents.

Trainees will be repaid fourfold if they learn what happens to their own patients after they leave the hospital. As Hess found out, the majority do well. Mostly, the outcome is marvelous. Imagine how I felt when I interviewed a student for admission to Baylor and realized he was a former newborn patient with transitory seizures.

DR. GARTNER: Where should we be going in training neonatologists? Are we training too many? Are we training them in the right way?

DR. DESMOND: Too many? [William A.] Silverman feels we may be. I'm not sure.

First, although our <u>birthrate</u> is down, our population is growing rapidly as a result of legal and illegal immigration. The <u>number</u> of births now is close to the number which occurred during 1946-64, the baby boom. It's about four million.

Second, the question might be answered more fully if one knew what the domain of neonatology is, and what it includes. Does it speak for all the newborns or

just the low birthweight and compromised term babies? Does it include delivery room and follow-up clinic participation? The scope needs to be defined, and demographic trends projected.

DR. GARTNER: So you think we're going to need more neonatologists.

DR. DESMOND: I'm not sure. It depends on the above, plus the number involved solely in research, and, of course, the burnout rate. Level III participation does not always serve as a lifetime career. In later life, neonatologists may enter related fields. Others have become department chairmen, like Drs. Avery, [Thomas K.] Oliver [Jr.] and [John M.] Driscoll [Jr.].

DR. GARTNER: A lot of them have become chairmen, that's true. How about the research training of fellows? How do you think that has gone on in the past, and how it should move into the future?

DR. DESMOND: Only some are going to follow research or academic careers, perhaps one in three or four.

DR. GARTNER: Do you think they all should be trained in research?

DR. DESMOND: To some extent. To follow progress in the field a neonatologist will need training in research design, in epidemiology and help in writing nice clear English sentences. He or she will profit from learning to interpret demographic trends. Upon completion of research, the writing of the paper is an invaluable, though often painful, experience. These acquaint the trainee with the basic tools for research. This in turn will help the trainee to judge the literature. Perhaps pressure for publication of a fellowship paper in a peer-reviewed journal is unduly strong. I don't think it necessarily should be published, no more than one would set a banquet with first cooking.

The past occurrence of iatrogenic disease in our field mandates training methods for determining the safety of all new procedures and treatments. Here Dr. Silverman, with great courage, has led the way.

DR. GARTNER: You talked about the future of research being so molecular and how difficult it is for clinicians to also conduct research. Do you think that future neonatologists are going to be able to be the double threats at least of clinician and investigator?

DR. DESMOND: A few multi-faceted individuals can do both with ease. Others are more likely to work as members of a project team. Today, because

of the nature of neonatology, many neonatologists participate in multi-institutional studies. It is difficult to carry out research in a private practice setting. Much of neonatology today is group practice in private or for-profit hospitals.

DR. GARTNER: What impact has that had on academic neonatology?

DR. DESMOND: Well, I haven't been all that much involved except for discharge evaluations and experience with the ethics committee. Academic neonatology is much influenced by the status of Medicaid and the HMOs [health maintenance organizations], as regionalization has been. Right now, for example, the nursery at TCH [Texas Childrens Hospital], which used to handle a huge number of private patients, is handling very few. Because they're going to the HMO [health maintenance organization] hospitals. St. Luke's [Episcopal Hospital] began to send them to Woman's [Hospital of Texas]. There are a lot of adjustments like that. So what is left are Medicaid patients. And then, a lot of the voluntary hospitals are after Medicaid, because Medicaid pays more than an HMO. The economic base for prenatal care, hospital care and postnatal care today, certainly in Texas, is shifting and unsatisfactory. Academically, we're suffering, I think.

DR. GARTNER: I hear that too. Over the years there have been problems in neonatology, errors in management, pharmacologic disasters. How do you feel about that? As you look back at some of those, what are some of the major ones that you recall?

DR. DESMOND: Well, I remember going in and finding everybody in mist. I came back, I think, from having a baby or something. Every incubator was in mist. Guess what that did? That seemed to help to bring along our staph epidemic. Some infants had an erythematous pustular rash which proved to be staphylococcus. I called Dr. Allan Bloxsom.

DR. GARTNER: Allan Bloxsom Airlock.

DR. DESMOND: Yes. He was quite anti-Baylor, but I always tried to be friendly with him. Bloxsom had, using his own money, reconverted the old surgical suite at St. Joseph's Hospital into a premature nursery. I called Allan Bloxsom up and asked him if he was seeing little pustules all over his babies, from the mist. And he said, "No, indeed." What was happening was our babies were colonized, and the mist was helping it along.

I remember when one of the residents, after reading about sternal traction for respiratory distress syndrome, tried it out on a baby to my horror. One

attending prescribed belladonna to prevent RLF [retrolental fibroplasia]. The babies were flushed and tachycardic. Occasionally, new drugs were tried out on the obstetric floor. With one, babies were too depressed to breathe properly and with another they developed acute abdominal swelling.

What was wrong in us, and I was as much involved as everybody, was that we never asked the parents their permission. We did it without too much thought. It was an impulsive use of new therapies. Dr. Silverman called the fifties a period of "therapeutic exuberance."

DR. GARTNER: Yes, impulsive. Good description. Are we preventing it now, do you think?

DR. DESMOND: Oh, yes, I think so. Safeguards abound. Consent procedures are in place. For research, one must pass through hospital and medical school research committees. We were able to avoid disasters with kanamycin and chloramphenicol because Martha Yow and her group monitored drug levels so closely. Yes, we're doing better now.

DR. GARTNER: Good. We've made out share of serious errors in neonatology; but I hope things are better.

DR. DESMOND: Dr. Silverman had a lot to do with that. He has been the voice of reason for a long time.

DR. GARTNER: The controlled clinical trial as the basis for therapy.

DR. DESMOND: Yes, which may be difficult to perform.

DR. GARTNER: Who do you think have been the major movers in neonatology nationwide or worldwide, the people who really have created the discipline and established it, and made the major contributions? You've mentioned Bill Silverman, of course. And early you mentioned Ethel Dunham, and her book. Who are the other people who are the major movers in the field?

DR. DESMOND: Drs. [Herman] Bundesen, Edith Potter and Julius [H.] Hess in the 30s.

DR. GARTNER: List Julius Hess's major contributions.

DR. DESMOND: He was a pupil of Isaac Abt. He was a practitioner. He opened his premature nursery in an age of social Darwinism, when raising weak or small babies was not popular. So he set up a long-term study to find for

himself the outcome of low birthweight infants. It was satisfactory, but he added always that nature had been kind to those who did not survive the trials of early life, e.g., intraventricular hemorrhage. His book on the premature is a classic.

You're after Americans, right?

DR. GARTNER: Mainly.

DR. DESMOND: The obstetrician-neonatologists of the 18th and 19th centuries laid the foundation for neonatology; [Francois] Chaussier, [William] Dewees, [Carl] Credé, [Etienne] Tarnier, [Pierre] Budin, as well as the pathologist [Charles-Michel] Billiard. They gave us growth data, developed incubators and resuscitation apparatus and started premature care. [Ignaz] Semmelweis established the route for maternal-fetal transfer of infection.

At the turn of the century, [Joseph D.] DeLee and [John] Zahorsky were influential.

[John] Ballantyne, who found newborn pathology an untilled field, was an obstetrician but more of a neonatologist. For me, he leads the parade, a brilliant, articulate physician.

DR. GARTNER: He was indeed.

DR. DESMOND: So many contributed. In this country, [Thomas] Rotch and [W. McKim] Marriott, in Europe [August] von Ruess and Ylppö. In the '30's and '40's, Drs. Hess, [Clifford] Grulee, [Herman] Bundesen and Levine. And [Isaac] Abt. [Alan] DaFoe had a lot of influence with the Dionnes [quintuplets]. Usher had a big, big part. Dick Day. Day and Silverman were together in their younger years. I don't know of any others that I can think of right away.

DR. GARTNER: How about in the 60's, as the field was just emerging, as it was sort of moving toward more intensive management? Who were the major movers in that period?

DR. DESMOND: Clement Smith, Virginia Apgar, Stanley James, Mary Ellen Avery, Millie [Mildred T.] Stahlman, Robert Usher, Lula Lubchenco, Andre-Thomas, Hans Prechtl, William Tooley, Abe and Jack Rudolph, Lou [Louis] Gluck, Paul Swyer, Jerry [Jerold] Lucey, and many others.

Dr. [Joseph J.] Volpe and neurology began to move front and center when imaging techniques became available and intraventricular hemorrhage was diagnosable in living patients. I found it most intriguing, the way in which the emphasis switched so rapidly from the lung to the brain, a relatively neglected organ.

DR. GARTNER: How about some of the issues that we're now increasingly getting involved in, with smaller and smaller babies, younger and less mature babies? How do you feel about that? Did we go too far in the past; are we going too far now?

DR. DESMOND: I went to visit Stan James one time, and he took me to make rounds. We saw a baby and I burst out, "Stan, that's a fetus, that's not a baby." We didn't have an argument, but went to the next case very quickly. [Laughs] I was glad not to be in neonatology then.

A problem of neonatology today is <u>success</u> in keeping the very immature alive. Dilemmas abound since very small babies comprise about 1% of births and cost the most. Handicaps are more frequent. Some are intubated and put on mechanical ventilation in the delivery room. Can they be weighed first? Can the wishes of mother and father be adequately obtained before the baby goes on the ventilator?

Two comments:

We may need to take the joy out of pregnancy and ask the parents to review all possibilities and clarify their attitudes <u>before</u> the mother enters labor. Ultrasonography turned a fetus into a person of known gender, promoting attachment long before delivery. I mean, one sees the baby wandering around, sucking its thumb, and kicking, so it's a person. This makes withholding of treatment more difficult. Parents may need to communicate their feelings on these matters to their physicians in advance of delivery.

Another problem today may be reluctance on the part of the physician to make a firm recommendation to the parents when circumstances warrant it. Parents and extended family may have difficulty in decision-making, particularly when the parents are young teens. We can't take these teenagers and ask them exactly what they want and follow it forever. They don't really know what to do but want to go against the tide because it's that age. I've seen that happen so many times, at so many ethics committees, with a single father or mother age 15 or age 14. It is a doctor's duty to advise, to recommend with clarity.

I think that every nursery should have follow-up records. Every neonatologist, as part of his training, should trace his own patients before he takes his Boards

and find out what happened to them. Find out what happened; give case reports. I think when you do that you will get some expertise and you'll know what to do and what not to do in delivery room and nursery.

They need to discuss with the obstetrician treatment of a 400-gram baby in the delivery room. We had an ethics meeting where there was a big fight within neonatology. In order to pull the plug, the physician had to have more than one signature. It was not obtainable because they were not in agreement. It went to the bioethics committee and I asked them, "Please give me a list of what happened to all their babies weighing under 700 grams for the last year." [Laughs] When they found out, it was disturbing.

It's a big thing now to be for life. I worry about the parents, because you have to. I think hyper-religious people are terrible. They want to put burdens on the parents and say, "Take this severely handicapped baby home and love it. It's good for you; it's good for your character." But it's not good for you, any more than poverty is. I find it hard to believe that stress is ennobling.

DR. GARTNER: What do you think neonatology will look like 25 years from now?

DR. DESMOND: No doubt it will be changed.

DR. GARTNER: Changed how?

DR. DESMOND: In 25 years, perhaps the Congress will have come to grips with health for the uninsured and develop a health policy for children. Prenatal care will become much more important as the advances in genetics cannot be applied without it.

In 25 years, aside from diseases of timing (premature and postmature births) and congenital malformation, the diseases will have changed. New diseases originating in the maternal and external environments will arise. Present congenital infections may be controlled but new agents will come on the scene.

Level II units may become more important since most infants with congenital infection (human immunodeficiency virus, etc.) and those with drug effects do not need intensive care but add enormously to later morbidity and educational difficulty. Hopefully, care for each baby will be individualized.

Neonatology will broaden its scope in training, adding social concerns, some law and a lot of economics.

DR. GARTNER: What about from the technologic perspective? If you think about the equipment, the technical capabilities that we'll have 25 years from now, what would you imagine the intensive care unit will look like?

DR. DESMOND: I'm going to pass on that one. Technology in the digital revolution will change beyond imagination.

DR. GARTNER: OK. What advice would you give to a young pediatrician now about neonatology as a career?

DR. DESMOND: It is a fascinating absorbing career, provided the neonatologist keeps a joy in learning. Because neonatology is a complex discipline located at the confluence of obstetrics, pediatrics and public health, it is controversial always. Its patients matter so much as they influence the future of government and are central to family life.

Working with historical material, I have been so impressed by the change in diseases over time, and the unforeseen emergence of new entities as changes occur in maternal, hospital and home environments. Syphilis was once the big disease. Syphilis declined; it's reappearing. Tuberculosis declines; it's reappearing. Respiratory distress is disappearing. We're now into metabolic errors. The drug patients came in in the late '50's. Things keep changing. To keep up, you have to read the newspapers. You have to understand the environment the mother lives in and the environment the hospital operates in. It's a broad field, which I have loved for 25 years.

DR. GARTNER: Is there anything in your career that you would have liked to have done that you never got around to doing?

DR. DESMOND: I'd like to have completed three articles that I never finished because life became too crowded; the articles on the neurologic exam, neonatal eosinophilia and congenital group B strep pneumonia.

I'd like to have learned one concept earlier; namely that one cannot oppose the tides, one can only wait and be ready to move with them. Only occasionally can a tide be given a tiny push. This applies to health causes and efforts to improve care for the uninsured.

DR. GARTNER: Is there anything else that I've left out, didn't ask you about, that you would like to add to this document?

DR. DESMOND: Well I'm glad to have lived so long, professionally. This span has permitted me to see the cycles and recycles in infant medicine, and to realize how deeply it is imbedded in a matrix of social conditions.

The [Virginia] Apgar [Award] was a shock. I couldn't believe it; I had never felt worthy. And I never felt that I had accomplished anything. The award was a shock all around. Dr. Blattner was delighted but surprised. The one who wasn't surprised was Ralph!

END OF TAPE TWO

DR. GARTNER: About Ralph.

DR. DESMOND: One of the nicest things about Ralph Feigin is that he never sees race or gender; he sees doctors. He is both tough and decisive and he's very warm. When you've got trouble, he's with you. When we lost our funding in 1984, I went in reluctantly to tell him. It was a big loss, because [President Ronald] Reagan switched to block grants. Ralph just laughed and said, "Don't worry about it!" [Laughs] The next thing you know he diverted some money to help us, and for quite a while he carried us. You can't say enough for that. I can't say enough nice things about Ralph. He's a phenomenon.

DR. GARTNER: He is.

DR. DESMOND: So intellectual. And yet, he gives you total concentration.

He's so careful about what he does for the house staff. I know when he first came, I was supposed to be taking care of the department parties at the SPR and all that. I had a very meager spread, you know, like popcorn or peanuts. [Laughs] Ralph says, "Where are the hot hors d'oeuvres?" I said, "Hot hors d'oeuvres? They're two dollars apiece!" And Ralph says, "Hot hors d'oeuvres." So we have the party with the hot hors d'oeuvres, and they're almost all gone and Ralph comes over and says, "We're running low, get more." I said, "Ralph, it's almost the end of the party." He says, "Get more!" Ralph delights in nurturing the house staff. That's all I have to say.

DR. GARTNER: Well I want to thank you very much. This was a wonderful experience for me, and I think a real contribution to our archive, so I thank you on behalf of the committee and the Academy.

DR. DESMOND: Thank you.

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CURRICULUM VITAE

Name: Murdina MacFarquhar Desmond, M.D.
Professor of Pediatrics, Emeritus
Baylor College of Medicine
Houston, Texas 77030

Civil Status: Widow
Two children

Date and Place of Birth: November 14, 1916
Isle of Lewis, Scotland

Education:

College: Smith College, Northampton, Massachusetts, B.A., 1938
Medical School: Temple University School of Medicine, M.D., 1942

Postgraduate Training:

Rotating Internship, Lincoln Hospital, Bronx, N.Y., July 1942-July 1943
Pediatric Internship, The New York Hospital, New York, N.Y., July 1943-January 1944
Pediatric Residency, District of Columbia General Hospital, Washington, D.C., July 1946-July 1947
Fellowship in Neonatology, George Washington University School of Medicine, Washington, D.C., July 1947-July 1948
Research Fellow, National Foundation for Infantile Paralysis, July 1950-July 1952

Military Service: Medical Corps, USNR (W), January 1944-May 31, 1946. Rank: Lt.MC (W) USNR

Certification: Texas State Board of Medical Examiners, November 13, 1952
American Board of Pediatrics, February 3, 1952

Academic Appointments:

Instructor, Department of Pediatrics, Baylor College of Medicine, 1948-1952; Assistant Professor, 1952-1957; Associate Professor, 1957-1964; Professor, 1964-1986; Professor of Pediatrics, Emeritus, 1986 to date.
Head, Newborn Section, Department of Pediatrics, Baylor College of Medicine, 1957-1972
Head, Section of Developmental Pediatrics, Department of Pediatrics, Baylor College of Medicine, 1972-1985

Hospital Appointments:

Director, Newborn Service, Jefferson Davis Hospital, 1953-1972
Pediatrician, Junior League Well Baby Clinic, Hermann Hospital, 1953-1972
Associate in Pediatrics, Methodist Hospital, 1953-1986
Associate in Pediatrics, Texas Children's Hospital, 1954-1972
Consultant, Newborn and Premature Services, St. Luke's Episcopal Hospital, 1960-1986
Pediatric Coordinator, Maternal and Infant Care Project, Jefferson Davis Hospital, 1966-1972
Director, Leopold L. Meyer Center for Developmental Pediatrics, Texas Children's Hospital, 1972-1986

Professional Societies:

American Academy for Cerebral Palsy and Developmental Medicine
American Association on Mental Deficiency
American Pediatric Society
American Academy of Pediatrics
Harris County Medical Scoiety
Houston Pediatric Society
Texas Pediatric Society
Orton Dyslexia Society
Society for Pediatric Research
Texas Perinatal Society

Honors and Awards:

Wyeth Award, 1958 (for research in Neonatology)
Distinguished Faculty Award, 1976, Baylor Medical Alumni Association
Sidney S. Kaliski Award of Merit, 1980, Texas Pediatric Society
Myrtle Wreath Award, 1985 (for work with David team), Hadassah
Outstanding Women in Science Award, 1985, American Women in Science
Speech and Hearing Award, 1986, Houston Association for Communication Disorders
Distinguished Service Award - Texas Perinatal Society, 1987
Apgar Award in Perinatal Pediatrics, American Academy of Pediatrics, 1988
Smith College Medal, 1991

Publications:

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