

GEORGIA

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Saturday, December 20--Wednesday, December 30, 1998

H. Kenneth Walker M.D.
Emory University School of Medicine

Saturday, December 19

Delta flight 146 from Atlanta to Tbilisi, leaving Atlanta at 5:46 p.m. and arriving about nine hours later in Vienna at 9:10 a.m. Vienna time Sunday. A twofold purpose in my visit: to be present, at the invitation of the Minister of Health, at a celebration on Dec. 23rd of the fourth anniversary of Presidential Decree 400. This was the beginning of laying the legal infrastructure for a modern healthcare system in Georgia. Our partnership participated in the decree, principally through Sherry Carlin, who was our representative here that year. Sherry, an RN MPH from Emory, now works with U.S. AID in Washington, about to go to Russia. Second, to begin to lay plans for our new three year proposal that has to be submitted for competitive funding in February.

Worked late last night and this morning in office, leaving my desk pristine clean, a rarity. This morning my wire haired terrier Jenny, who is the anchor of my household, wasn't inclined to get out of bed. Finally did so reluctantly, and made it clear she wasn't herself. Listless. General malaise, to use a favorite medical term. I worried a lot about what this presaged, since I was about to leave for ten days. After some agonizing took her to the vet, who did a \$102 workup and found nothing. The vet, who I trust implicitly due to a variety of dealings over the years, opined Jenny had figured out I was leaving and was letting her feelings be known. I took her home about noon, where she cavorted a bit with Billy, my other wire haired. Then she lapsed into what I can only describe as a doleful state. Sat by the window in the atrium, watching me, with hung head and sad expression. One of the most pathetic and soul-searing experiences imaginable. I left her with heavy heart. What can one do? No known psychology known to me.

Jenny reminded me too much of an experience I had with my Pop some years ago. He was 88 at the time, a few days out of Emory Hospital with community acquired pneumonia. I was slated to go on a one week trail ride at San Simeon, William Randolph Hearst's ranch on the coast in Southern California, with Rob Holman, an intern, and his father and brothers. Pop made some choice comments as I was walking out the door, to the effect that he and Mom had loved my brother and me a lot, and would I please take care of putting flowers on their graves upon my return when he had died and gone to join her (Mom had died a few years previously). I left him with the same doleful posture as Jenny had this morning. I went to the Northside Air Terminal on Memorial Drive and sat on a bench awaiting the arrival of the bus to go to the airport. Sat next to a thirtyish woman, well dressed, poised, an up and coming executive. We got to talking. I noticed an unfamiliar leather-covered small box that was on her left side, attached to a strap or harness-like contraption around her shoulder. My curious look at it led to her telling me it was her father. He had died in

Atlanta, and she was taking his ashes to Los Angeles for burial. Words cannot convey my feelings at that time. In the same ballpark as my feelings when I left little Jenny this morning, looking as though her world had collapsed. Andro Kacharava, a resident who stayed with me a few months while his wife returned to Tbilisi, told me Jenny would go to the atrium in the middle of the night when I was away and cry like a baby. Really, really difficult.

Sunday, December 20

Arrived in Vienna at 9:40 a.m., with Austrian Air plane leaving 10:25. I made it with a few minutes to spare, but arrived in Tbilisi without luggage. I had hoped teutonic efficiency would work and get the luggage, but it didn't.

Tbilisi at 5 p.m. Went to home of the Zhgentis. She is the sister of Irina Chanturishvili, whose son Levan lived with me two years and went to Emory for his MBA. Now Beso Zhgenti lives with me while going to Georgia State University. We had the Georgian supra or dinner, with a lot of lively conversation. Spoke to Beso in Atlanta, who is taking the GMAT for business school entrance tomorrow. He arrived in August, and this semester has been in the School of Policy Studies of Georgia State. They have an \$18 million contract with the Russian government to restructure the tax system of Russia. Beso works in the IRS of Georgia, and we are hoping he can get involved with the tax project at Georgia State. Beso is quite bright, and loves mathematics. About 25, had spent two months in Atlanta as a high school senior. I can see him being head of the tax system of Georgia in his day.

Went to Betsy's Hotel. They put me in my usual room, #3. Except now they have added bathrooms to all their rooms. Seems strange to be in Tbilisi and not have a communal bathroom.

Monday, December 21

Bright day, temperature in 40's, just as I had left it in Atlanta. Archil had bought me a shirt and tie to wear today until my baggage arrives, hopefully tonight. On the way to breakfast I ran into a friend from Washington, DC, Greg Guroff. Greg has arranged an exhibit of ancient Georgian art. He and I worked to get it into the Michael Carlos Museum at Emory, but their slots were filled. He has done all the arranging now for an US tour. I decided to write another email to Tony Hirschel, the director of the Carlos, and see if there were any chance of getting it in at this late date.

At breakfast met Mike Calhoun, who is here for a couple of months and doing something about agriculture. Probably fifties, avuncular sort. The kind of treasure one

encounters at the table in Betsy's Hotel. He told me in Eastern Georgia, near the coast and up in the mountains, there is a town Tchalka, that Archil told me later was populated by the Greeks who had migrated there. f. Their descendants still live there. A huge bowl of about 50,000 acres with black, rich soil that is fluffy--like butter according to Mike. Home of the Tchalka potato and other commodities. The villages are perched around the periphery, so as not to put any of the precious soil out of commission. The cows there are closest to Brown Swiss. Mike prowled around and thinks there were primitive milking machines when the area flourished under the Soviets. He noted the Soviets simply put people where they were needed in large numbers, and didn't set up any infrastructure such as railroads to accommodate moving or transportation--e.g., the people in Tchalka.

He said Georgia's latitude is the same as the middle of Iowa, somewhere around 42 degrees. And it has the same transevaporation point. Tbilisi gets an average of 12 inches of rain, with the summer months getting only one-half an inch each. This present time--December--is the "rain of the latter days" in the Bible--viz., the increase in rain that comes at the end of the year. Kutaisi in Western Georgia is at the 36 inch isobar of rain; Poti, on the Black Sea, gets 50 inches a year.

In Soviet times there were two million acres of wheat cultivated in Georgia. Mike says Georgia has the most agricultural potential of any place he has seen outside of the United States. And of course it was the breadbasket of the former Soviet Union, as well as the Black Sea coast being the choice area for vacations--all of which equals California.

He pointed out another similarity with the U.S. In our beginnings almost 98% of the population was engaged in agriculture--the time of the land grant colleges. Now less than 2% of the U.S. population farms, due to the gigantic increase in productivity. Georgia now is much closer to what we were around 1800-1900, but of course will catch up rapidly as access to modern methods, equipment and fertilizer occurs.

The Mayor of Tchalka told Mike they would give him all the land he wanted free. Just cultivate it and give them jobs.

Mike told me of an older man he met when he was younger and just getting started. This man worked for the USDA in Tifton, Georgia. He had been attracted to Tifton because the land was nothing but gulleys at that time (twenties or thirties), and he had a letch to introduce techniques to stop soil erosion. His goal was to find a grass that would grow well in the area and prevent erosion. One night he had a dream that he could find the grass in Italy. He awakened his wife, shouting "we're going to Italy!" Somewhere in northern Italy he found a few sprigs of a Bermuda-like grass that was

barely surviving the winter, which he brought back and developed into coastal Bermuda. It grows up to 200 miles from the coast, and Mike pointed out 70% of the "mother cows" in the world live in the U.S. within that distance from the coast. Especially Florida and Texas. (He also said 90% or so of the cotton in the U.S. was grown within six miles of the town square in Lubbock, Texas.)

I went to the Ministry of Health. Met Zviad Kirtava, who was distributing *The Internet Medical Digest*, the journal put out by the National Information Learning Centre (NILC) that our partnership established here in Tbilisi. The Minister and his staff were about to have their weekly meeting. Zviad, a rheumatologist, is the director. I was quite interested to see what articles from the U.S. literature had been summarized in the 8-10 page digest. One column in Georgian, parallel one in English:

- U.S. Food Guide Pyramid, with commentary
- Stress and Myocardial Infarction. Benefits of Physical Fitness
- C reactive protein, women, myocardial infarcts and strokes
- Salmeterol for asthma
- Remicade for Crohn's disease
- TB: post-infection vaccine
- TB and Rifapentine

I thought it was an outstanding job.

A meeting with Avto Jorbenadze, the Minister of Health. A long-standing and close friend. He asked me what was up in the U.S.? "Sex," I replied (day after Clinton impeachment). He and the rest of Georgia view the impeachment as complete lunacy. I quote an email a Georgian matriarch wrote to me a few minutes ago:

Well, is Clinton facing impeachment? I don't know why but it really makes me nervous. Not in a political sense of course. You know that I've never cared for politics: I do not care whoever is a president even in my own country, not to say anything about any other country's president. But in a personal sense I feel pity for Clinton. I think it's most undecent, unfair and abnormal to peep into one's personal life. Do Americans get crazy? Do they forget Bible? " Tell me who hasn't ever sinned..." says Jesus. OK, I can understand

that it's a war between Republicans and Democrats, but where's a public conscience? To spend millions on investigation while there are such notions as starving children, homeless people, cancer and AIDs. You Americans made unhappy the first family of your country, so how could any particular American care for his/her family? Or does anyone there think that to have fun out of the President's sexual relationship is the best proof that the country is a leader in democracy? Oh no, not so definitely. All the rest world has a lot of fun, believe me, even this little impoverished, torn apart asshole of a country like mine, and doesn't want to be democratic if democracy needs such proofs. When all this is finished and Clinton resigns in disgrace (it will be a miracle if he won't and even worse to him) I hope very much that sensible American psychologists and sociologists will make deep analysis of what has happened to the whole America by this event and how to prevent the further decay of American society in sense of generosity, personal security and MORAL itself, though it might sound paradoxical...

We talked about the proposal we will submit to US AID in February for our plan for the next three years. We discussed PIMS. This is a section of the Partnership for Peace group: NATO nations plus many of the former Soviet Union nations, such as Georgia. PIMS stands for Partnership Information Management Systems, and is the informatics division of the Partnership. We have been having talks with Jim Hendrick of PIMS. He is establishing satellite connections to the Internet in the Partnership nations, and we are discussing with him how we can work together. A short time ago I introduced Jim to Jim Zimble, president of the United States Uniformed Health Services medical school, a friend on the National Library of Medicine Board of Regents. We will all work together in Georgia.

We described to Avto a surprising email I received a couple of weeks ago, from David Vassallo, a Maltese officer in the British Military. It suddenly appeared in my email, asking if we were interested in collaborating on a project he described as "The Three Georgias." He was from "South Georgia." The only South Georgia I knew at that time was the flat piney tree land in our state. David had gotten to know Zviad Kirtava at a meeting in London, and had been interested in what we are doing in Georgia. He described to me British telemedicine activities in South Georgia, a small island near the Falklands.

From: DJVassallo@aol.com
Date: Wed, 9 Dec 1998 17:38:15 EST
Subject: Re: Hello!

Ken Walker M.D.
Professor of Medicine
Emory University School of Medicine
Atlanta, Georgia, USA

Dear Ken

Many thanks for your email regarding the Three Georgias. I am delighted at your enthusiasm, and I shall do all I can to facilitate links. I must say that it was a pleasure meeting Zviad at TeleMed 98 in the Royal Society of Medicine, so I hope it will be possible to meet you some day too. I am glad that George has already been in touch from South Georgia directly, to be followed by Ricky Bhabutta in a few weeks.

It might help you to have some background info on my involvement (for after all I am physically based in the UK): I am therefore attaching two relevant files (one per email) for you: the first is an article published in the Journal of the RAMC, 1998(Oct);144:125-130, and the other was submitted on 17 Nov 98 to another medical journal. Hopefully it will be accepted soon, in which case I shall let you know the journal's name.

To summarise, I am a (Maltese) consultant general surgeon with the Royal Army Medical Corps in the UK, and since January 98 I have introduced telemedicine links to the British military abroad, starting with Bosnia. I have now established links between the Royal Hospital Haslar, Gosport (near Portsmouth on the south coast of England)(where my main colleagues are two radiologists, Peter Buxton and John Kilbey) and troops in Gibraltar, Cyprus, the Falkland Islands, South Georgia and Belize. We use a very simple but effective store-and-forward system with the high resolution Olympus C1400L and C1400XL digital camera as the mainstay in each location. In the USA these cameras are called the D600L and D600XL. We do not use videoconferencing at all. On the educational side, we encourage our doctors and nurses abroad to use the Haslar Library Web site, for this has been specially developed to have useful Medical Bookmarks to resources on the internet: you may care to try it for yourself, at <http://www.haslib.demon.co.uk/library.htm> Proceed via the Medical Bookmarks link. By all means explore the UK (as well as the US) links: I look forward to hearing your opinion of this site.

In South Georgia, transmissions are performed via a Nera Mini-M Worldphone, which can only transmit (and receive) at 2.4 kbps. This is fine for still diagnostic quality images, compressed or resized as necessary, but this does mean that one has to be careful about sending them any large files. The medical

officer is normally there for four months at a time, and the first to set up telemedicine links from S Georgia, this summer, was Lt Col Angus Menzies, senior medical officer. Angus left two weeks ago. The current doctor, Capt George Fulton, is only there for a month (and he leaves 20 Dec) till Major Ricky Bhabutta (normally the medical officer for the Gurkhas) replaces him: I think you already know this from George.

A satellite link was only established to South Georgia about 4 months ago, and to date there have been 3 telemedicine referrals from there. The first one, on the 16th November, was the most spectacular and also materially influenced his management: a 32 year old mountaineer fell 50 metres down a slope, inverting both ankles, and fractured the right lateral malleolus. He then walked for 14 hours to base! There is no radiographer in South Georgia (there are only 20 troops there, so the doctor has a crash course in taking xrays prior to going there). Angus took xrays of the mountaineer's ankles, initially thinking that the patient could be evacuated in slow time, and be treated in POP without internal fixation. He then photographed the xrays, transmitted them to us at Haslar, where our senior orthopaedic surgeon advised that internal fixation was essential. There are no facilities for internal fixation in South Georgia or the Falkland Islands either. This sparked off a chain of evacuation, which ended in the patient being operated on 12 days post-injury, back in the UK, and being out of hospital two days later.

I shall be sending you one image in my third email. This image was sent me by Angus from South Georgia as soon as he established the link in October. I have also sent this photo to the National Geographic, because by great coincidence the October issue had an excellent article about Sir Eric Shackleton, and South Georgia.

Looking forward to being back in touch, on behalf of South Georgia. I daresay that George Fulton will be back in touch soon too.

David Vassallo
Defence Medical Services Telemedicine Unit
Royal Hospital Haslar
Gosport
Hants PO12 2AA
UK

Here is what his associate who is there said:

From: Captain Fulton, South Georgia
To: Dr Zviad Kirtava, MD, PhD.

Greetings from South Georgia (South Atlantic),

I received your address from Lt Col Vassallo a few days ago and was interested

to here that you had linked up with the Americans in that other place with a familiar sounding name. As most people in the UK think that when you take up this post you are either going to your country or having a working holiday in the USA, I would be interested in finding out what your end of the world is like as I have so often been asked that myself.

As to my Georgia, I am situated some 850 miles from the nearest hospital with a minimum evacuation time of 24 hours. The terrain is rugged in the extreme with our base situated at sea level and the island going from this to about 3000 metres in a matter of 10 km. The island itself is 50 km wide and 150km long. The only means of travel around the island is by boat or by foot. The weather itself is very unpredictable and almost antarctic in nature. There are two areas of population, here at King Edward point where the garrison lives and at Bird island, some 80km to the north. The Bird Island population is composed of scientists who work for the British Antarctic Survey, who study the wildlife present on the island. It may be of some interest to you to know that they also are involved in telemedicine and have their own system involving the Derriford hospital in Plymouth in the UK.

Medically our patients vary on the island depending on the time of year. Our main concern is the troops stationed on the island and a small number of civilians who work here for the government and maintaining the museum here. We also provide support for any expeditions who come to the island. Most of the population is extremely fit and so our patient caseload is predominantly injuries due to work or suffered whilst adventure training. In addition to this we also provide some support for the cruise ships that come here during the summer. These vessels all carry their own doctors but we are often asked to help if there is a problem as we have more extensive facilities and also a means to evacuate casualties by air. We have no airstrip but there is a system for sending a helicopter to us and refuelling it during its journey. The cruise ships passengers are predominantly older people and so it is possible to see some medical problems that you would not expect to see in the out of the way place. In winter we do not see the cruise ships, but the fishing vessels which come to fish the rich waters in this area of the world take their place. From these boats we have seen a fair bit of major trauma and other medical problems of interest. They tend to present us with more casualties as they do not have the medical facilities available to the cruise ships and their profession is one that has many dangers.

The post of medical officer to the garrison here is one of 4 months duration and, amongst the doctors of the army, one that is often highly sought after. These seem to be mainly for the non-medical reasons. The island itself is amazing to behold and the opportunities for mountain training without comparison. The wild life here is also beyond belief with so many seal and penguins, as well as many other types of bird that they are beyond counting. For example, some 20km from here by boat and walking is a king penguin colony that numbers about 500,000 birds, and these are not small in size.

I hope this gives you some idea as to what the "third Georgia" is like. As you can see the new telemedicine link we have is extremely important as we are extremely isolated here and the advice we can receive via this link can help a long way in caring for our patients. I look forward to hearing from you and also from the third member of our trio in the USA. Alas I am only here for another 5 days but my replacement, Major Ricky Bhabutta will no doubt wish to here from you as communication with outside world keeps us from going a little mad.

Yours sincerely,

George WO Fulton

Capt RAMC

David proposed we collaborate: *The Three Georgias*. His description of what they do in telemedicine is outstanding: simple, but brilliantly effective. Basically an Olympus camera that costs about \$1100, with transmission rates as low as 2400 baud. The pictures are beautiful. He attached two papers he had written. Avto was fascinated. We see a lot of possibilities for collaboration: us, PIMS, USUHS, the Minister of Health and Minister of Communications in Georgia. We will start by setting up a telemedicine unit in the Republic of Georgia similar to that in South Georgia.

Avto said he and the World Bank had agreed on the "multiprofile" hospital that will be completed in 2-3 years. Architects now drawing up renovation plans. Japan has agreed to give \$25 million in equipment. This will be a combination of general hospital and tertiary care hospital. I have been pushing for such a hospital for several years. We have taken all told about seventeen Georgians into our house staff training programs at Emory, and we desperately need a hospital they can come back to and practice what they have learned about modern medicine. The technology of Georgian medicine now, with one or two exceptions, is decades behind the US. I also hope to get funding for faculty and Emory house staff to spend one month at a time over here in the hospital setting up various programs. The funding will have to include salary support for the faculty members during the month, which is no small task! I'll leave that to a couple of years from now.

Left and went to the NILC where I connected to Emory and answered my email. Archil showed me with great pride what they have done for heating the facility. This has been a horrendous problem in the past. The building, like all buildings in Tbilisi, has been freezing. No one will come in to search for information when they are freezing so much they are shaking. In the Soviet days there was a central steam plant, and all the buildings and houses in the city were supplied with steam. True for entire Soviet Union.

Now the only remnants are the ubiquitous iron radiators, reminiscent of a bygone U.S. time. Last year the World Bank paid \$60,000 for a heating system for the entire building, since it has their Continuing Clinical Education center on the top floor. Turned out it would cost a fortune in fuel oil to heat the building with that system, so the building stayed cold during the winter. Then Archil and Zviad discovered how the Armenians were triumphing over the cold. They devised a tiny coil, heated by electricity and with a thermostat, that could be screwed into the iron radiator and that would keep either water or an oil heated in the radiator. A brilliant solution. Now the NILC is toasty warm.

Lunch at one of my favorite places, a small tea room. Full of bustling ladies and hungry Georgians. Then we met with Vladimir (Vovo) Bregvadze, who has just been hired by the PIMS people as their person in Georgia. He fit into a type I have come to know well here: young, about 24, recent graduate in computing science of Georgian Technical University. Very much into computers, and planning to make that his career. We showed him the NILC, which is the most advanced computing center in all of Georgia. Talked about our collaboration. Then I sent this email to Jim Hendrick in the Pentagon:

Jim, we met yesterday with Vladimir Bregvadze, your man here in Tbilisi. We understand of course the role he plays, and this was merely for us to touch base with him. Seems quite capable for what you want of him. He said he would let "Frank" know of our meeting.

There are several areas we'd like to propose to you for consideration of our joint efforts over here.

1. A connection to our National Information Learning Centre (NILC) in the center of Tbilisi. We would use it to enhance our connectivity, and in particular to establish a Distance Learning Center that would be accessible to anyone you wish, in addition to the centers of higher education here in Tbilisi, such as Tbilisi State University (comparable to Univ. of Georgia and similar U.S. universities) and Georgian Technical University (Georgia Tech).
2. A connection to the main military hospital in Tbilisi. This would support a satellite of our NILC, which we would help them set up, and train them in how to access medical data bases, and other similar sources of information. We will connect with the Minister of Defense if and when you are ready for us to do that. The chief of our partnership here, Dr. Archil Kobaladze, knows him well and together with the Minister of Health can do business with him.
3. Telemedicine. We would propose to set this up along the lines of what we sent you about South Georgia, the English setup. If David didn't send along his papers, I will send them to you when I get back to the U.S. It is the kind of simple yet

highly effective setup that will work brilliantly here in Georgia. We would work with the Minister of Defense and the Minister of Health to choose the sites, probably (if you agree) picking them in such a way that they would benefit both military and civilians.

Met with Kakha Djakeli, a German trained economist. Bright young Georgian, in his thirties, coconspirator of Archil's in the health insurance business. They plan to set up a HMO, actually a Health Access Organization, in a pilot project for 1,000 Georgian families (average 3.5 people per family), for \$5/month for each family. This will give them access to: internist; OB-GYN; pediatrician. In effect, gatekeepers. Will pay only for office visit, nothing else. But Archil says the ability to get a good physician any time is a priceless asset for a Georgian family. Then they are planning a package that will pay for routine lab and x-ray, and see how that goes. Final package will be hospitalization. Putting toes in water first, then gradual immersion (an image that resonates with someone like myself who was raised a rural southern Baptist).

Back to Betsy's for a jet lag nap for an hour. Then a beer with Levan Khurodze. Levan is 23, the son of Ramaz Khurodze, president of Georgian Technical University. Bijan Fazlollahi, a professor at Georgia State with whom our partnership has worked to set up the MBA school here, had asked me to meet with Levan. He wants to be a visiting international student at GSU this next semester, to see if he might be interested in getting his MBA--identical to what Beso has been doing this semester. Levan married when he was 18, "over the strong objections of my parents and hers," and then got a law degree here. Then to Denmark for further study for two years. Now works for a company that bottles Borjomi (town in the mountains near here with famous spring water) water. He started as a lawyer, now is head of marketing for them. He is articulate, thoughtful, the most mature 23 year old I have ever met. Very clear ideas of what he is interested in pursuing in the future. I told him he could stay with Beso and me, if he didn't mind sleeping on a fouton, for a few days while we found a place for him to stay in Atlanta. I predict Levan will be amongst the leading businessmen in Georgia in his time.

Archil and I had dinner at "Stones." The name reminded me of Bones restaurant in Atlanta, one of the premier eating establishments in the U.S. Here they bring out small pieces of meat--beef, sturgeon, chicken--and a large hot stone, with about six sauces: garlic, Georgian curry, etc. You cook the meat on the stone. The meat equivalent of fondue. Clever idea. Really good.

Archil and I talked at length about our plans for the next three years. We came up with this main outline:

- Kutaisi regional education center with:
 - Satellite of NILC and Emergency Medical Services (EMS) training center
 - Nursing components of continuing education
 - Nursing Learning Resource Center satellite
 - Poison Control Center satellite
 - Outreach programs to schools, villages, etc.
- NILC in Tbilisi:
 - Enhance equipment
 - Establish distance learning center
 - Support Kutaisi
 - Beginning telemedicine, in conjunction with military and PIMS
- EMS in Tbilisi
 - Support Kutaisi
 - Begin more advanced training, in trauma/nuclear catastrophes
 - Nursing school at Tbilisi State University
 - Nursing continuing education and skills development throughout Georgia
 - Nursing Learning Resource Center
 - Support Kutaisi center
 - Telemedicine: collaboration with PIMS
 - Poison control center in Tbilisi, with Kutaisi satellite

Home to Betsy's. My baggage had arrived! Has about 100 missives/parcels for Georgians families here, from Georgians in Atlanta. I would have been murdered had it not arrived.

Tuesday, December 22, 1998

Absolutely beautiful day. Awakened at 2 a.m. with jet lag (nine hours ahead of Atlanta), got up at 5:30, worked on this chronicle plus emails. It is really awful to go to bed at 10 p.m., tired to point of death, and awaken at 2 a.m. completely awake, with no possibility of sleep. All sorts of things run through the mind. A lot of reflection, but a particularly useless sort.

Unpacked all the packages and letters sent by Atlanta Georgians to Tbilisi Georgians. Felt like the Pony Express. But a worthwhile effort. Met with George Turkia, new dean of MBA school that Bijan Fazlollahi of Georgia State University has set up. Bijan had sent tickets with me for three faculty members of the new school (which is a consortium formed here by Tbilisi State University, Georgian Technical University and the International School of Economics) to come to Atlanta in January 1999. I expressed to George the concern of Bijan that the students had not been selected. George said all the students were busy finishing their undergraduate degrees through the first week in January (orthodox Christmas occurs then), and after that he would institute

a big advertising campaign and select the students. Fifteen of them will be have their tuition paid by the Minister of Health, so they will specialize the second year of their MBA degree in health management. We agreed all of us would work out how the minister's people would work with George and the other faculty to pick these particular students. Tuition 1500 lari (\$1 = 1.77 lari today; devalued recently; see below) a year. George plans for the students to start in March on their prerequisite courses: math, etc. Usual undergraduate not prepared for MBA courses, he says. He also wants them to take the GMAT at some time so their degree will in fact be considered equivalent to US degree. We also discussed Bijan's plans for GSU president Carl Patton to visit here in mid-May. I hope for Tom Lawley, dean of our medical school, and perhaps even President Wm. Chace of Emory to come with him. Archil, George and I agreed the agenda for the visit would include President Shevardnadze, the rectors of the main institutions, etc.

A meeting with Irina Chanturishvili and Beso Stvilia, a librarian. Received his B.S. in computer science in Tbilisi. Worked as a system librarian at the National Library of Georgia for six years. Just back in Tbilisi after getting his master's in librarianship at the University of Illinois. Has applied to get his PhD in library science there too. There are about six other librarians, young men and women, who have returned recently from the U.S. with a master's in library science. They have made contact with two similar people in Azerbaijan and two in Armenia. They have formed an association, The Association of Information Specialists, and have set up a non-governmental organization (NGO). They are the best sort of people for library science in Georgia: young, aggressive, fresh from acquiring knowledge in the U.S., ambitious. They have just had a regional conference of Georgia, Armenia and Azerbaijan. The lead speaker was Beso's major professor in Illinois, Mariana Tax-Choldini. Her topic was "A New Image for Post-Soviet Libraries: An American View." She is Director of the Mortensen Center in Illinois. The course content for the three days:

- Information Systems Analysis and Management
- Information Organization and Access
- Cataloging and Classification
- Intellectual Freedom Issues and History of Libraries
- Basic Computer Literacy
- Networked Information Services
- Library Administration

They are just beginning an ambitious project to train Georgian librarians in western methods. The funding is by Soros, Eurasia and the United States Information Service. They have space, furniture, seven computers including one laptop. They have set up a course of 'train the trainers.' They will train two groups of twenty-

five librarians each from all over Georgia. The participants are from: National Library of Georgia; Library of Science and Technology; National Medical Library; Library of the Academy of Science; librarian of Tbilisi State University. Each group will have a three month course of seven classes of three hours each, from 6 p.m. to 9 p.m. They gave me a copy of their syllabus.

This is what countries like Georgia need: courses that make available to a wide range of librarians the knowledge of western library science, taught by librarians of the country. What this small group of people is doing epitomizes what we are trying to do in Georgia. I encouraged Zviad, of our NILC, in the strongest possible fashion to bond with this group, and to open the arms and portals of the NILC to them. They are doing for general librarians what we are trying to do for medical librarians. We will do best by doing this together.

To Tbilisi State Medical University, where I was welcomed by Rima Beriashvili. Rima is a young, beautiful and energetic pathologist who spent two months with Whit Sewell at Emory. She is now head of International Student Affairs at TMSU. To give an idea of the importance of international students, I heard the rector say the tuition of students from Turkey and India and other countries brought in \$250,000 a year!

I met with the rector, Ramaz Khetsouriani, who has been rector since I began coming here in 1992. We talked about the possibility of Tom Lawley, our dean, visiting here with President Patton of Georgia State University in May. Ramaz would be very, very happy if that occurs. I also told him about Jim Zimble and the US military medical school. At some point in the future a collaboration might be possible.

I met with the nursing association that our partnership fostered. Their office is part of our small complex. They told me of the courses they give: Nursing Leadership skills: 50 hours. Two courses to 25 nurses a month

This course was conceived and put in place by Laura Hurt of Grady Hospital. She went to Tbilisi and identified nursing leaders, brought them to Grady where she taught the how to teach the course, complete with slides in Georgian she made, and they went back to Tbilisi. One of those small efforts that in time will have enormous consequences for the country.

They need a clinical affiliation now to teach another course, Clinical Assessment Skills. We have identified tentatively the Central Clinical Hospital, formerly the Republican Hospital ('republican,' in former Soviet Union parlance, means national, as opposed to local), the largest hospital in Georgia, with 1000-1500 beds. This hospital will become the base for teaching clinical skills.

A problem is what to do about the nursing learning resource center. AIHA has given us a starter, which we put upstairs in the World Bank Continuing Clinical Education Center. But there is not enough space, and the director is not supportive. So we need to find another place to put it. The Central Clinical Hospital is ideal, but we also need for the new nursing school to have a resource center. Our tentative decision was to put two in place, one at each. We would be careful not to duplicate the resources in each, but to have them different. We will explore this further with Judy Wold and Laura Hurt in Atlanta, since we have to put it into our new funding proposal in February.

We also agreed that one of the nurses would religiously communicate with Judy by email each day. The communication problem is huge with many of the Georgians. Language is one part of this, with them being shy about using English when they don't feel very comfortable in it. Another part, I suspect, is they aren't accustomed to the necessity of this continual communication, and really don't agree with it--perhaps don't see the need of it might be a better way of saying this. But it is a gigantic problem with many parts of our partnership. Judy Wold, of GSU and the new nursing school, has had this problem to a terrible degree. She goes for a month without a word.

On the other hand, when necessary their communication skills are superb. E.g., I was recently in Moscow visiting Levan Vasadze, who lived with me a year in Atlanta getting his MBA at Emory. I listened to Levan speaking Russian over the phone, and asked him if the Russians could tell he was from Georgia by an accent. He said he had a very faint accent and didn't think they could identify it as Georgian. He remarked he can put on a thick Georgian accent, and does so when he wants to instill respect into his subordinates: "Due to past history (Stalin, who was from Gori, Georgia) a Georgian accent evokes fear in most Russians"! Reminded me of a tale a young Georgian man told to me. He told about his encounter with one of the legendary Russian women in Moscow whose business is sex. First he called over the phone, and established all the options and price for each over the phone. During the middle of the conversation the question was asked with some horror "Are you Georgian?" Upon the affirmative answer he was told she expected to find only him, "and by God not you and the rest of a Georgian rugby team when I come." (Apparently this is the Georgian reputation.) She arrived with a woman friend, and the first thing they did was to look into every closet and in every room to see if there were anyone else.

We agreed a substantial part of our new proposal will be outreach nursing programs in Kutaisi. This is the second largest town in Georgia, with about 600,000. A wonderful place, full of history. Continuously used as a city for 3000 years, one of the few such in the world. In our new proposal to be submitted to AID/AIHA for funding, we plan to have a regional educational center in Kutaisi. A big part of that will be outreach/com-

munity health projects, in which the nurses will play the largest role. In my May 1998 report I listed the current outreach activities that Dodo Shelia, the regional health director of Kutaisi, has in place:

-A "Nurse Communicator" program, or "Health Prevention in Communities." There is a nurse in every small village who has been contracted by Dodo. The nurse gets paid when he or she turns in statistical forms (births, deaths, maternal deaths, vaccinations, diarrhea cases, etc.). The nurse is primarily in charge of women and children's health. Basically, said Dodo, the nurse is a "nurse communicator."

-In each village the school teacher sets up a Health Committee. The teacher organizes the community leaders into this committee. There are 11 rayons (like counties) in the province. 131 ambulatory clinics. Each of the communities has about 2,500 people.

-Dodo publishes a newspaper, *Health*, which is given free to high schools.

-Kutaisi has 43 schools, and Dodo has a chief nurse in each one, who is responsible for seeing to the health of the students, including vaccinations, fitness for sports, and so forth.

Now there are 195 of the contract nurses described above. In 60 of the clinics there are MDs; in others nurses provide all the care. Dodo has a job description for the nurse communicator, which she gave me in Georgian and I will get translated.

Here is a list of all Dodo's programs, proposed and implemented:

- 1. Nurse Communicator. Implemented
- 2. School monitoring by chief nurse. Implemented
- 3. Women's health program for newly weds. Implemented.
- 4. Physical status of school children, especially those engaging in sports. Implemented.
- 5. Community health management. General practitioners. Implemented
- 6. Pre-school evaluation of children. September 1998.
- 7.. Family planning. Date not set.
- 8. Family doctor program. Date not set.

I got the description for each program in Georgian, and will have all of them translated in the next week or two. Most of the programs are nurse-based, and thus are ideal candidates for our nursing initiatives.

We then visited two sites that Dodo would give us for the regional center. We chose eighteen rooms, or a complete floor, of a hospital Dodo "owns" that is no longer used. An absolutely fabulous space for all our plans. We agreed the center would contain the following:

- 1. Satellite of the NILC. Zviad's parents live here, and he can be counted upon

- to do a bang-up job.
- 2. Nursing: Dodo wants “nurses to be information carriers.” She wants training, courses, booklets, bulletins, posters, the nursing association, etc.
 - 3. EMS: a disaster center is already open. They need training. Also wants to start courses for high school students.
 - 4. Health promotion
 - 5. Healthcare management

This gives us fertile ground for innovative outreach possibilities.

We came up with the first draft of our new proposal to AID/AIHA in February:

I met with Alex Aladashvili. He is a cardiologist who spent a couple of months Emory. He was also named the dean of a new medical school at TSU that we agreed to help with, but they haven't got the politics of it sorted out yet. Alex has just gotten the first cardiac catheterization laboratory started in Tbilisi. He informed me he had done four stents and two percutaneous coronary angioplasties. He showed me beautiful pictures of them. A big problem is he has no cardiac surgery back up, which worries all of us. He is extremely careful in choosing his patients. Archil tells me many of the physicians in Tbilisi will not send him patients for angioplasty because of the lack of surgery backup. Archil and I agree that the first disaster will cause Alex to rethink his position. He has now done over one hundred coronary angios without complications, which is remarkable .

I met Nana Makalatia, a young physician who is applying for the residency program. She made 78 on Part I of USMLE and to my amazement 88 on Part II. Most foreign applicants do much lower on Part II, due to the backwardness of clinical practice. I asked her why, and she said she made the mistake of putting the answers on paper, and then transferring them to the answer sheet: “I lost the last 84 answers due to lack of time.” I told her to talk with me the next time I come.

I had dinner at Betsy's with three students. Andrew Giorgadze, who made 249 on Part I, and who will come to Emory to get tuned up for one month before taking the new clinical skills part of USMLE, required since last July for all foreign applicants. Then Saba Bejanishvili and Giorgi Katsitadze. They spent six months with us at Emory, made quite high on their USMLE exams, and are quite viable as candidates for the transitional program at Emory this year. We talked at length about medicine in Georgia.

The future is with the youth in Georgia, and the rest of the former Soviet Union. One of them told me recently his father's generation (men in their fifties) were beyond hope: set in their ways; inflexible; hated the West; feel they should still be a superpower.

Their promise, their aspirations and how they are arduously working toward them are exemplified in the following email I received from a young Georgian about 17, who is an undergraduate in Texas:

Dear Dr. Walker,

How are you? This is George writing from Texas. I hope you still remember me when we had dinner at my parents' home in Tbilisi, Georgia. You gave me your business card, so I wanted to keep in touch with you. So how are things going at the Emory University? As to me, this is my second semester at the Midwestern State University, Wichita Falls, TX. I'm majoring in Finance. When I graduate, I really want to do business between the United States and Georgia. Most likely it is going to be Producing, exporting and importing of goods. But as to the situation for today, I am a usual poor international student, with a car older than me and cheaper than my watch. Well, I guess I'm wearing a really expensive watch. But seriously, as to my studies, then quite good. I still have lots of problems with English. I'm just starting to realize that I'm in an English speaking country. Well, and it's kind of hard for to do a lot of reading. Actually, it's not hard to read a lot at all, the hard part about it is to understand everything that I read. But I can gladly say that every day I'm getting better and better. Right now I'm working on a getting a scholarship for the Fall semester of 1999. I've heard that you are going to Georgia sometimes this summer. I wish I can see you there. Well, Dr. Walker, I don't really want to take your time away, but still I'll be really glad to get an e-mail from you.

With best regards and great respect,

Wednesday, December 23rd

I met with Steve Sapirie. He has worked for years with WHO, just recently retired, but is now their consultant in Georgia, working on a strategic plan for the Caucasus countries for WHO. In a couple of months he will take up work with a Boston firm as their informatics person. We talked about what was happening in general in the aid field. He said the Azeri Minister of Health, a shrewd and seasoned politician, had turned down World Bank aid because he refused to follow the Bank's prescriptions for what to do. Also said vaccination rates in Georgia had fallen below the 40% level, and there was widespread fear of epidemics of measles, etc., this year among the children. He spoke of a declining GNP in Georgia and economic problems. Many people have just gotten their May salaries. An instructive analysis about the Georgian economic situation from an Internet news service:

GEORGIA'S FINANCIAL CRISIS REFLECTS DOMESTIC ECONOMIC PROBLEMS
by Michael Wyzan

Georgia's economy recently entered a period of financial instability. The lari, introduced in October 1995 at 1.25 to the dollar, had weakened only to 1.30 at the end of last year. But the exchange rate was 1.62 lari to the dollar on 3 December and 2.21 on 7 December (although it has strengthened to below 2 to \$1 since then). Meanwhile, the National Bank has decided to stop using its rapidly depleting international reserves to prop up the currency.

While the prices of most consumer goods are reported to have risen recently by 30-80 percent, it is too early to know the magnitude of the effects of the currency crisis on the macroeconomy. Nonetheless, it seems certain that the crisis has brought at least a temporary halt to a period in which Georgia had combined the fastest-growing economy in the CIS with low and declining inflation. GDP rose by 8.6 percent in 1996, 11.3 percent in 1997, and 7.3 percent in January- September 1998. Consumer prices grew by 7.9 percent in 1997 and only 3.6 percent during January-September 1998.

Although the immediate cause of the country's problems is the Russian financial crisis, there are also significant domestic causes, in particular poor fiscal performance. Other domestic factors cited in the Georgian press include the recent uprising in western Georgia and the need to import fuel before the onset of winter. Financial crises triggered by speculative attacks on currencies often occur in countries with large fiscal and external imbalances (generally associated with a currency that is appreciating in real terms) and that have received substantial inflows of short-term capital.

Although Georgia's budget deficit has not been enormous in recent years (it was only 2.5 percent of GDP on a cash basis in 1997), tax collections as a share of GDP remain among the lowest in the world. In 1997, the central government managed to collect only 10.3 percent of GDP in budget revenue, compared with 25.9 percent in Russia and 16.5 percent in Kyrgyzstan. That trend has continued this year: as early as April, it was clear that collections from value-added taxes and excise duties were beginning to fall well short of targets.

Georgia's foreign trade has been highly unbalanced (in 1997, imports were 3.7 times exports). This has resulted in current account deficits of more than 10 percent of GDP in recent years. However, those deficits have been financed by loans from international financial institutions, workers' remittances from abroad, and, increasingly, foreign direct investment (which totaled \$242 million in 1997). There have been only minor short-term inflows.

The IMF recently changed its tune on how well the Georgian authorities are doing in reforming the economy. In July, when its executive board approved the release of the third annual loan under a facility awarded in February 1996, it praised Georgia's accomplishments in the second half of 1997. Those accomplishments included acceleration of the privatization of medium-sized and large enterprises, enactment of a law aimed at establishing a competitive market in electricity generation and distribution, further progress on land privatization, and

improved control over budget expenditures through a treasury system.

However, earlier this month an IMF official said that Georgia will receive the support of international financial institutions only if the government adopts a stronger economic policy. As a result of the fiscal crisis, targets have not been reached for government borrowing from the Central Bank, health spending, expenditure arrears, and sales of treasury bills. The government has not met other fiscal targets because of failings of an administrative nature.

It is hard to say how severe and prolonged a downturn Georgia will suffer. Economy Minister Vladimir Papava argued in mid-October that the absence of securities markets precluded the spread of the world economic crisis to the country. Tacis experts argued at that time that Georgia's diversified exports, large value-added tax in transit trade, and small budget deficits made a Russia-type crisis unlikely.

In reality, it is very difficult to predict the timing and severity of currency crises, especially in such small, fragile economies as Georgia's. The absence of significant short-term capital inflows means there is little protection against such crises, as demonstrated by Bulgaria's experience in 1996 and 1997, when Bulgarians dumped leva for foreign currencies.

The key question is whether the Georgian state will be able to restore the credibility of its macroeconomic policies; in Bulgaria, this required both a change of government and policy regime under a currency board. On the other hand, the IMF's decision last week to offer \$200 million to bolster the foreign reserves of Georgia and five other countries (which the fund described as the "poorest countries neighboring Russia which have been hardest hit by the Russian crisis") should help stabilize the situation.

The author is a research scholar at the International Institute for Applied Systems Analysis in Laxenburg, Austria.

"Acute flaccid paralysis" (polio) is a problem. But public health officials cannot find the virus in the stool and confirm the diagnosis due to laboratory problems.

I felt Steve's observations and insights were extraordinarily valuable, and took extensive notes. I added to them some of my own ideas and conversations with others and came up with the following:

Wednesday, December 23, 1998

Health Issues in Georgia

Based on conversations with Steve Sapirie, with lesser contributions from my own observations

1. Health Promotion

The World Bank has focused on non-communicable issues (cardiovascular disease, hypertension, cancer, etc.). There also needs to be concern about communicable diseases. The vaccination rate may be dropping below 40%, and this raises concern about cholera, measles and other communicable diseases. There are many small studies done by NGOs but they are uncoordinated, not generally disseminated and not analyzed and taken into account by the authorities for these reasons.

Three approaches should be considered:

- Overall coordination of all health promotional efforts, by Ministry of Health
- Social measurements of effectiveness of health promotion; i.e., surveillance of efforts
- More effective and widespread use of the media

2. Integration of Laboratory System

Constrained resources are making it necessary to combine clinical laboratories, public health and sanitation laboratories. The decision has been announced, but no decision has been made about which ones will be merged. There are a lot of problems with this merger, but of course a lot of wasted resources without it. At the moment the huge majority of the clinical and public health laboratories are below acceptable standards and have severe problems with equipment and training.

3. Legal Infrastructure and Systems Definitions

At present there exists no legal basis for involvement of the Ministry of Health in public health, and no definition of the roles and responsibilities of the Ministry or officials appointed by the Ministry. There is no legal basis or organizational structure and definition of responsibilities for the entire public health system. This leads to many problems. An example is the World Bank's pushing for general practitioners as the keystone for health care. There is no definition or legal basis of their function in this role. This is especially important in view of the Ministry's desire to decentralize public health functions into twelve regions. The management functions of the officials in these roles have not been defined. In spite of this training courses are being written to train them. Question is what are they being trained for? Two levels of work needs to be done:

- Legal basis of Ministry of Health and subordinate institutions in this role needs to be accomplished
- At an operational level, especially in the regions, managerial and other functions need to be defined

Bill Ranke of Johns Hopkins has done a lot of work in this field, and might be an appropriate person to follow up on this problem.

4. Health Information System: "Early Warning" system. A "Health Watch."

The old Soviet system produced masses of data without any analysis; production of the data was an end in itself. It would be very useful to have a body that served the function of an "Early Warning" or "Health Watch" function. This would be a group whose function would be to gather but especially analyze data that might indicate new diseases, reappearance of old diseases, failure of treatment of new or old diseases, etc.

An example from the current situation is what seems to be an epidemic of sexually transmitted disease in all three Caucasus republics of Georgia, Armenia and Azerbaijan. Some small studies by NGOs show a prevalence rate of 50% of STDs in women of childbearing age in Armenia and Azerbaijan. Trichomonas and chlamydia account for 40%, and syphilis and gonorrhea for 10% of this figure. There is a corresponding increase in birth defects and infertility. These same results may apply to Georgia also, but there have been no studies, and health officials don't seem sensitive to the possibility, in spite of anecdotal evidence this might be the case.

The position this Early Warning system has with relationship to the Ministry of Health needs to be thought out carefully. They must have sufficient autonomy to feel free to promote their analyses, even if they run counter to the party line and current thought, without fear of reprisal. Possibilities include: in Ministry of Health; in an organization such as WHO; etc.

5. AIDS

Each country over here now has a "UN AIDS Theme Group." A concern is the current thesis that in Georgia IV drug abuse is the primary mode of transmission. This is true in Russia and the Ukraine, but there are no good studies in Georgia. HealthNet in fact discovered in a small study that IV drug abuse accounted for a small share of HIV infection in Georgia. Presumably heterosexual and homosexual routes therefore are very much involved. This is not the party line, and there is probably a lot of resistance to this notion. A careful study needs to be done, and this may be an urgent priority.

Georgia is currently out of blood screening kits. The problem of HIV, syphilis and particularly hepatitis being spread by contaminated is enormous. At the moment it is not being tackled due to lack of funds.

6. Comments and Miscellaneous Notes

Reproductive health is everybody's interest now. Contraceptives are spreading across the entire region. A big problem remains the lack of support by physi-

cians for family planning. They make money for abortions. The figures given are something like 50,000 live births and 60,000 abortions. However these are the same figures that have been used for last three years, and there are doubts as to their accuracy.

Tuberculosis being focused on by AID and GTZ of Germany. Progress in Georgia not going well, even compared with Armenia and Azerbaijan.

AID is in the process of formulation their new strategy. Large consultant report received several months ago from Johns Hopkins group. AID is sold on the partnership strategy.

A big problem is the coordination of NGO efforts, as well as organizations such as AID and the World Bank. WHO is analyzing how to do this. Actually Ministry of Health coordination is better in Georgia than the other two countries, but much more needs to be done. The Ministry of Foreign Affairs has a unit that tracks all the NGOs, and would be the starting point for tackling this problem. An organization such as the National Information Learning Centre might play a big role in disseminating the information about what each organization is doing. Have to be careful and not ask for their funding information, since they are quite sensitive about this.

7. Suggestions

Dissemination of information about what NGOs, AID, World Bank, etc. are doing with respect to the health sector. the National Information Learning Centre might have a key role here.

Health Watch or Early Warning system for health sector. Analyze and publish data obtained from Ministry of Health, the NGOs, World Bank, AID, etc. Needs to be related to Ministry of Health, but autonomous enough to feel free to disseminate data and recommendations.

AIDS and STD: studies of mode of spread of AIDS and prevalence rates of STDs need to be done. One problem at the moment is that groups working in these two sectors are completely separate and efforts are not coordinated.

"Systems design" of the public health system needs to be undertaken. In effect the Ministry of Health needs to do a rethinking of the health system: structure; function; legal basis.

Health promotion needs to be focused upon: coordination; measurements of efforts; more effective and widespread use of media.

Careful thought and planning needs to be given to integration of diagnostic, public health and sanitation laboratory systems.

Management training in health sector a desperate need, both short term and long term. Current efforts seem to be ineffective.

Technology needs gigantic upgrade

Quality of care: efforts need to be greatly increased on improving the quality of physicians and nurses with respect to caring for patients. There seems at the moment to be no consensus on how to do this. E.g., should Georgia put a lot of effort into algorithms and care guidelines for specific diseases? The answer to this question is not clear--even in the U.S. and England.

General practitioners: at the moment the focus of most of the health reform efforts is upon producing a huge number of general practitioners, feeling they are the answer to much of the country's needs. This is an assumption that needs to be thought about carefully. E.g., would nurse practitioners serve the same function, or many of them, or even do better? And other similar questions need to be explored.

I gave these notes of our conversation to Steve and he had these additional comments:

1. Health Management functions and training: I feel that a new type of functional analysis needs to be designed to clarify what regional level health managers are expected to do. Because Johns-Hopkins SPH and specifically Bill Reinke had done this sort of thing earlier for the World Bank, in respect of all types of health service tasks, I turned to them to see if they would be interested in focussing specifically on managerial tasks. Their answer was a resounding "yes" if funding and interested countries can be found. I wouldn't mind several schools of public health getting involved in such an activity, particularly, if I and MSH can also be involved. I think it is a critical next step in support of health care reform, management strengthening and health information systems development.

2. The AIDS transmission issue: Let me clarify the results of the HealthNet study. It did not address modes of transmission, directly. Rather, it was a sociological study of injectable drug use among the youth in Georgia [Exact Title: Injecting Drug Use and HIV in the Republic of Georgia, Author: Wouter M. de Jong, of the Trimbos Institute, Netherlands Institute of Mental Health and Addiction, Date: 13 - 23 January, 1998]. It was a sociological study, rather than epidemiological. He had a sample size of only 83 youth, randomly selected on the streets of Tbilisi and Batumi. He quotes official estimates of the number of drug users, but seems to downplay the actual extent of drug use. He does note that students who go to Ukraine to study often take up the habit. But their numbers are declining. He concludes that addiction to drugs does not occur on a large scale, except within prisons. My hypothesis is that a high proportion of the HIV positives have been notified from the authorities in Russia and Ukraine, who were in fact, IDUs. But if we look at the results of Blood testing in the transfu-

sion centers of Georgia, where five cases were found, none were IDUs. I just think it is time for a good study of the Georgia transmission situation. Combined with certain information received in Armenia and Azerbaijan, I feel that it is important that a situation analysis of AIDS and STD transmission be undertaken in the Republics to be a basis for the prevention strategies that need to be designed and implemented. If sources can be found, such as Carlos Del Rio and his grant, why not suggest such a study be well-designed and conducted in Georgia and Azerbaijan.

I feel there is a tremendous and urgent need for a western school of public health in Georgia. When I return to Atlanta I will pursue this with Jim Curran, dean of Emory Public Health, and funding agencies.

I had lunch with George Kurdgelashvili. George, or Gia, is about 28, works with AID, and wants to get into the residency program. Had high scores on his USMLE exams. Personable, very bright and motivated. I'll bring him up to our people when we put our rank list together.

Zviad and I went to the State Chancellery for the celebration of the signing of the degree setting up the current health system by President Shevardnadze Dec. 23, 1994. I was here then, and in fact gave a speech to the Cabinet, presided over by the President, in support of it. Today is "The Day of Medical Professionals," and it is planned to be a yearly celebration. A glittering occasion. There were posters by a variety of institutes and other organizations. Our NILC had one that was excellent. Tengiz Tsertvadze and his AIDS institute had the best one. His principal young physician aide (who has spent time with Carlos de Rio at Grady), Roman, told me Tengiz had worked them all into the ground with 24 hour work days preparing the exhibit. President Shevardnadze arrived with the Minister of Health and visited each poster.

Then there was the giving of awards by the President and the Minister. I had been warned I would get one. Three of us were given gold medals. The other two were the principal pathologist of the country, about 75, much revered, and the head of the postgraduate institute (both postgraduate continuing education and in Soviet times a medical school; the second most important medical institution in Soviet times). I had met both the first time I came to Georgia in 1992. I was in good company. My medal was for what our partnership has done for Georgia since 1992.

Then to the auditorium, where there were speeches: Roin Metrevelli, rector of TSU; Ramaz Khetsouriani, rector of the state medical school; a literary critic with a biting tongue who is much respected for his comments--a columnist so to speak; and others. The President and the Minister both spoke. There was a concert afterwards, a play of sorts I gathered later, performed only by physicians. It had been a long hard day, I was still suffering from jet lag, and I politely declined.

I went back to Betsy's and had dinner with David Tsanava, a young medical student about whom I've spoken before. In addition to medical school he is a computer nerd, and is setting up his own computer store. He works 23 hours a day. Bright, articulate, very personable. We talked about the life of a young man in Tbilisi in these difficult days.

Thursday, December 24th

I awakened at 2:30 a.m. with the jet lag syndrome. A wet, overcast day, with penetrating cold that goes straight to the marrow. Archil and I went to Tbilisi State University and had a meeting with the rector, Roin Metrevelli, and the provost, Temur Khurodze. We had the initial pleasantries, including the usual Turkish coffee. I have been coming to this office since my first visit in 1992, and feel at home with it and its occupant. Impressive sign on the entrance saying "Roin Metrevelli, Academician." This was the highest academic rank in Soviet times, the absolute top of the full professor category; very few of them.

I got to the point about our concerns about the faltering of the beginning of the nursing school. I brought up the concerns of Judy Wold at Georgia State that the school was going to be a miscarriage. I diplomatically threatened them with her giving up the project. They told me their big problem was the \$25,000 the Minister of Health had promised them, with \$25,000 more next year. They pointed out their faculty hadn't gotten their salaries for several months, and they absolutely had no start up money. They assured me the Minister said he was going to give the money next week, before the New Year. I asked if they believed the Minister. Roin made a phone call to the Minister, and frowned, and indicated there had been just a bit of equivocation on Avto's part. I pushed about TSU footing the start up, and was told there was no way they could do it politically, given the faculty salary problem. I believed them, and said I would speak to the Minister personally when I saw him the next day. They told me that with the money (they have already given the space), the school will start immediately. Twenty students have already been chosen--I was given the list with names. Classes would start March 1.

We talked about the MBA school, which they are participating in. They are quite pleased with its progress. We discussed a proposed visit by President Carl Patton of Georgia State University. Bijan has arranged this. We agreed I would leave with an itinerary. We also agreed I would speak to some Emory colleagues about the possibility of President Chace and Dean Lawley of the medical school coming along also on the visit.

At the end of the interview I asked Roin about the Greeks in Tchalka mentioned earlier. His field is the history of Georgia. He said these were "Ponto Greeks" (whatever that means), and they in fact had come around the 18th century. I got a nice little lecture on Greeks in Georgia. Pericles in fact led an expedition to the sea coast near what is now Poti, called Phasis then, around 500 B.C. The Greek myth of Jason and the Golden Fleece is based upon their knowledge of Georgia. The purported factual basis is that the Georgians of the time used sheepskins to capture gold from the water of gold rich streams.

Roin and Temur then raised a subject dear to their hearts, and one that Archil had warned me they would raise: what about their medical school that we had agreed to help them start? This occurred about two years ago, and they in fact named Alex Aladashvili the dean, and he spent time at Emory. The only problem is the school got mired in the politics of the Biology faculty of TSU, where it would reside, and languished. I assured them we were still on board, just awaiting them sorting out the start up problems (a nice euphemism for what I suspect are vicious politics amongst what the Georgians called "people with former Soviet mentality!").

Down to the U.S. Embassy. I was struck suddenly by the total absence of potholes. Every single visit up to this one has been notable for avoiding huge potholes in Tbilisi, as well as the main highways. Not a single one! I couldn't believe it. One of those small but highly significant signs of incremental progress. The attitude of the people is wary, probably because of the lari float. The ones in the West have interesting views of what is happening in Georgia, colored by their stay in the U.S. An email from a Georgian in his twenties who has been here in the U.S. three years:

Marry Christmas and very happy coming New Year. I wish you the best of health, happiness and Gods blessings. Sorry I haven't been in touch, things have been quite busy up here. You probably know as well as me how tough things are back in Georgia. I'm so angry with my government, most of them have demonstrated complete miss-concern and carelessness towards the people. No one seems to be making any effort to make things work. I get really mad, that even the things that are really very easily correctable, are to the contrary, getting worse and worse. I don't understand, when are these people are going to start taking responsibility and realize that they have to serve the people, not miss-govern and take advantage of them. I guess, old habits die hard. What worries me the most is that there is nobody who is coming out with real, honest leadership and helping the people get better. Smart people, even people educated in the West are rarely utilized; horrible examples are being set for the future generations and the possibility of turning into a "banana Republic" is becoming painfully real. I guess, just a good president is not enough, "it takes a village", but nobody is trying. But its Christmas and time for hope and faith, so I try to stay optimistic. Sorry for carrying on too much.

Let me say once again the future belongs to the youth in their twenties and thirties.

We visited Victoria Sloan, who is head of the U.S. Information Service (USIA) in the Caucasus. I had not met her before, but we had both heard of each other. She is the boss of Irina Chanturishvili, who runs the USIS library for Georgia. I had not known about these libraries before Irina took it over some years ago. Apparently each U.S. embassy throughout the world has one, filled with prescribed material designed to give the people of other nations a view of what the U.S. is all about. Books on the Constitution, the Declaration of Independence, the agricultural system, all sorts of relevant subjects. Several thousand books, as well as magazines and other material, including now CD ROMs, etc. A capital idea.

Archil and I told her all the things we have done since 1992. I promised to send her a summary of our activities. A super talk. She came across as at the top level of the foreign service: dedicated, highly intelligent, personable, quite pragmatic.

Met the Ambassador on the way out. Here about six months, has excellent press amongst the people I know over here. I haven't ever spent time with him, and need to do so.

To the NILC and did a variety of things. Discussed with Zviad and Archil our partnership activities. Archil has just completed all the work for our partnership to be converted into a Nongovernmental Organization (NGO), the "Partners for Health." The beginning of a new era in our activities in Georgia. Has a lot of legal and financial implications. Will give us much more potential scope and ability to get money from a large variety of sources. Met George Turkia and discussed some topics about the MBA school, following up on several emails between Bijan and myself. Met Ia Kamxadze. A young cardiologist from the Kaspi region (one to two hours from Tbilisi) who wishes to go to Atlanta to do a couple of months of training in ECHO cardiography. I decided to do some thinking and talk with John Merlino of Crawford Long hospital when I return to Atlanta. I had seen her the last visit, and had tentatively decided this would not work out. But had told her to come back. I often do this, meeting people several times, getting a feel for them and their perseverance and capabilities. Some of them follow up, like this lady, and many of them don't. As good a way as any of coming to conclusions about people.

The rector of Tbilisi State Medical University, Ramaz Khetsouriani, had Archil and me to lunch at a new restaurant. 2 p.m. Vodka flowed freely (except me and Archil, who had work to do later in the day). I brought up the topic of dean's letters of recommendation for graduating students. I pointed out to Ramaz that all U.S. dean's letters

follow a fairly rigid pattern, which I described. I receive a huge number of letters from deans of foreign schools, and not one of them follow that pattern. I promised Ramaz I would send him several, and encouraged him to change. Unstated was a hook in this suggestion. The descriptions of the clerkships contain highly specific comments about what our students do. Foreign schools, one and all, give their students zero clinical responsibility. They "learn" by watching by and large. If Ramaz changes, then he will be pressured by the nature of the letter to change the character of the clerkships. One cannot easily say "this student watched much better than the other students"! Ramaz was quite interested. He is a bright and proud man, and I wouldn't be surprised if he didn't take me up on this. When I send him sample letters I will include running notes about what they are based upon.

Back to the NILC where a very distinguished Georgian scientist came by for advice. I had never met him before, but he had heard I was here. His wife of sixty years had breast cancer ten years ago, and since then has had an extremely complicated course of surgeries, chemotherapies and radiation therapies. Had seen the director of the Vince Lombardi cancer center at Georgetown, whose letter I read. She has now deteriorated significantly in the last three weeks, and he wanted advice. He brought up, not unexpectedly, a letter from an Asian physician friend who had some herbal medicine that "has saved the life of many a woman with breast cancer here in Taiwan." I told him: I doubted if the herbal medicine would harm his wife, and if it helped both of them emotionally I wouldn't hesitate to give it; her physicians needed to figure out the cause of the acute deterioration--e.g., hypercalcemia?; he should take her back to Georgetown, given the complexity of her case and the fact they had seen her before.

I had beer with George Gotsadze. He is about thirty-three, trained in ob/gyn, but works for the United Methodist Committee on Relief (UMCOR), as well as being one of about four partners in an innovative physician group, Curatio, which aims to bring western practices to medicine here. He said the World Bank has \$50,000 for health management courses, and wanted to discuss how to spend it. Same old problem of a country that is trying desperately to change its health care system, but is completely devoid of people who have been trained in the new type of management. We discussed a number of options, and I promised to put him in touch with a couple of people who might help. George pointed out the World Bank has divided its efforts at improving the education of practitioners into five categories, headed up by Alex Aladashvili: nursing; general practitioners; public health; health management; the Continuing Education Center. Each of these divisions has a budget and plan.

Archil and I had dinner with Maureen and Ed Brand. She is the senior nurse at the Embassy, and also is the right hand of Marty Adams, who is second to the ambassa-

dor. Ed is head of CARE for this entire area. Ed had just arrived from Nepal. It took him four days to make the trip, making the usual 18-21 hours to Tbilisi from Atlanta seem like child's play. Their daughter Erin just married Josh Jakum, one of our medical students who just graduated. Josh spent an elective of one month here last year. They have been functional expatriates for 37 years, he working for CARE and Maureen in the Foreign Service. They haven't lived in the U.S. any during this time. They will retire in June, and are looking around the U.S. for a place to stay. They disagreed with my statement they would be unhappy in the U.S., just like English civil servants who worked in India, returned to England, then promptly went back to India to live in peaceful retirement. We'll see.

Back to Betsy's, where the annual Christmas party by the staff was in full swing. Forty people, tamadan (toastmaster), liters and liters of wine, dancing, all sorts of emotional toasts. The second one I have had the privilege of going to. Betsy is in Washington for her annual trip back to the States. A maudlin toast to what a wonderful person she was. Similar one to me. I made another one. And so forth. Wonderful people.

Friday, December 25th

Merry Christmas! A far cry from the ones I remember as a kid of seven or eight. Awaiting the morning with breathless anticipation. Couldn't go to sleep. But must have, since I never heard the preparations. Then going into the living room and seeing the presents left by Santa! My brother says I have come up with the perfect way of avoiding Christmas: on Dec. 25, our Christmas day, I'm in Georgia; in January on the Orthodox day of Christmas, I'm in the U.S.

Rainy, cold, wind blowing, just like yesterday.

Breakfast with Mike Calhoun. He is involved setting up a frozen food company here, explaining his knowledge about agriculture in Georgia. He says the farmers in Georgia are very entrepreneurial, in contrast to many other countries he has visited, even places in the U.S. E.g., in some places in Texas the fiftieth generation is still in the cow business, and still losing money, just as their forbearers did. Here in Georgia, just as in the Willamette Valley of Oregon, the farmers will try one thing and if it doesn't work next year they'll try another.

George Keshalava came by. He was one of our first group of Georgian students to visit Emory in 1993 or 1994. Has passed his USMLE and applying for residency. Persevering and tenacious. Father is professor of Iranian/Persian history at TSU. I like George. He is an acquired taste, just as I am.

Vaso Egnatashvili came by. A student at Emory about two years ago. His grandfather was the wealthy man in Gori in whose house Stalin's mother worked and lived with her husband. Strong rumor Stalin was the son of Vaso's grandfather: the grandfather paid Stalin's tuition in seminary in Tbilisi; Stalin named his first son for the grandfather, not his father as is customary in Georgia; Stalin took care of the family during his regime--Vaso's uncle was head of the Kremlin guards. Vaso has told me the family has extensive memorabilia from Stalin: letters, mementoes, and the like.

I had brought with me the articles from *Nature* describing how it was documented that Thomas Jefferson fathered his slave's son, through DNA analysis of the descendants of each. I suggested to Vaso this might be a nice little project for him, if he wished to settle the matter once and for all, and provided he could get the agreement of one or more of Stalin's known descendants.

Vaso was interested, and may follow up in the future. But now he is having a very difficult time. His father has end stage renal disease, on hemodialysis, and colon cancer, and has been in the hospital for four or five months. Vaso stays with him most nights. He had just come from the hospital, and showed clearly the wear and tear. A difficult situation. I had tried to get some erythropoietin before I came over, but ran into an absolute roadblock. The U.S. company doesn't distribute it in the former Soviet Union and Europe, and consequently doesn't feel right about giving samples. I couldn't budge this in spite of the fact that the head of research is a former Emory faculty member whom I know well. Vaso also told me of how difficult it had been to find colostomy bags after his father's surgery. Things we take so much for granted are difficult beyond belief over here. Vaso was a changed person from the carefree student who had not a care in the world and was very sure of himself when he was in Atlanta. The lines of grief and struggle are highly visible in his face, and he now has a mature and sober outlook on life. A recognition that a lot of life is very hard and is a huge struggle.

I made a TV spot for the NILC. Spoke about it being the absolute core of all our efforts in Georgia, and of our vision for it in the future.

I met with Archil and Dito Makhatadze of our Emergency Medical Services Training center. Dito has done an extraordinarily excellent job with the center. I give the summary from our seven year report of its activities:

- The National Emergency Medical Services Training Center (EMS TC) opened on October 23, 1995, and continues to train personnel from throughout Georgia in pre-hospital emergency care and life support.

- Five instructors of the EMS TC were trained in Armenia and the U.S.;
- The premises of the center were repaired and well equipped by Atlanta-Tbilisi to provide a satisfactory training site.
- Since the opening 60 training courses have been held, 56 in the training center and four at remote sites: Zugdidi/Samegrelo region; Gali/Abkhazia; Gudauri; and Supsa.
- Twenty-two programs have been special programs for nonphysicians and children
- Other special programs have included governmental guards, car drivers, mountain guides and four day courses in First Aid for pipeline companies.
- 1492 people have been trained in the EMS TC since its opening

Physicians	722
Nurses	159
Red Cross	7
Dept. Extreme Situations	28
Mountain guides	38
Government guards	33
Students	96
Rescuers	106
Car drivers	35
General population	45
Children	142
Pipeline companies	81

- Databases have been created that include all individuals trained by the EMS:
- The distribution of trainees from different regions of Georgia:

Tbilisi	1042
Samegrelo	100
Imereti	84
Abkhazeti	42
Kakheti	80
Adjara	38

- The distribution of trainees by age:

26-37 yy.	47%;
18-25 yy.	20%;
36-50 yy.	16%;
6-17 yy. –	11%;
51-60 yy.	6%.

- The following projects have been carried out in the EMS TC:

“Healthy Generation”, which provided first aid training for school pupils;

“Introduction of first aid and self service training communes”;

“Medical Information Bank/Database for emergency service and disaster medicine”;

“First aid training for refugees from Abkhazia”

“Trauma Prevention Project”

- The staff of the EMS TC participated in:

International conferences	5
Fellowships	7
Workshop	10
Exhibitions	5

- All staff of the EMS TC have been trained in computer skills, Internet search, Medline search, E-mail, MS Word, MS Excel and MS PowerPoint
- The webpage of the EMS TC was created in April of 1997
- A Learning Resource Center was provided by the partnership through AIHA in the EMS Center.
- The staff of EMS has prepared 3 different manuals in first aid and emergency care:
 - for medical personnel;
 - for nonphysicians;
 - for children.
- The first color illustrated textbook "First Aid" in the Georgian and Russian languages was created in the EMS center.
- The Western Road Pipeline project has contracted with the training center to provide training for its personnel.
 - A problem is that the center is marginally to under self-sustained. This is due to the poor economy and inability of the public to pay fees more than cost for the courses.
 - Satellite offices need to be opened in other sites in Georgia, but funding is a problem. Ultimately these sites will be in regional healthcare centers in conjunction with satellites of the NILC.
 - A "Healthy Generation" project is planned to provide first aid training for school children. Funding is currently being sought.
 - Future plans include adapting the course for nuclear accidents.

I think this report illustrates nicely the kind of work that goes into helping a country like Georgia come up to speed in a specific area.

The question now is what tack to take for upgrading the training. There are several possibilities: advanced trauma; nuclear catastrophe (Georgia and surrounding former Soviet republics have a lot of nuclear detritus); catastrophe related to oil pipeline, the first of which just started operating from Azeribaijan to southern Georgia last week; or poisons. We decided to consult with others, such as the Minister, before coming to a conclusion.

A meeting with George Turkia and Guram Leshava about final plans for the MBA school. We went over the applications that would be handed out, and the itinerary for President Patton.

I met with the nurses, including Gela Arabidze, the physician who is dean of the nursing school Judy Wold of Georgia State is starting. They gave me the names of the twenty-three proposed students, and said April 1 would be the day the students started provided we got the money and the school was begun officially.

Archil and I went to the opening of the Microvascular Surgery Center, of the Tbilisi State University Hospital. Attended by the notables of the Georgian medical community. A state of the art center, with operating microscopes and the like. I first visited this hospital four or five years ago, at about this same time. No heat. No patients. No generator. No electricity. I have a memorable picture of two pathetic medical record ladies struggling with tattered paper charts dressed with thick, heavy overcoats. Now electricity, toasty warm, new paint, modern looking operating rooms. Quite a change.

Archil and I had a quiet talk with Amiran Gamkrelidze, the number two person in the Ministry of Health. A good human being who is extremely able. We brought up the question of the \$25,000 payment to TSU before Jan. 1. Amiran said it would be done. When Amiran says this, you can put it in the bank. Later I wrote Judy Wold an email saying she had a nursing school.

Back to the NILC and interviewed two applicants for internship:

Gregory Khurtsidze: made in 90th percentile on Part I of USMLE. Twenty-six years old. Father engineer, mother

chemist. No siblings or wife. Now works in the Institute of Cardiology. Excellent English. Wants to go into cardiology. Has applied to nineteen U.S. programs, hasn't gotten an interview at any of them. I thought he would do very well as an intern. I will try to help him get a slot somewhere, either this year or the next.

Vladimir (Lado) Chachanidze): also in 90th percentile on Part I. Also twenty-six. Father in radiation physics, dead. Mother in physics also. Brother industrial engineer. Friend of Saba Bejanishvili. Works at AIDS center. A very good candidate.

These youngsters and their friends are the real future of Georgian medicine. They need to do just what they are trying to do: get a U.S. residency, and then return to Georgia. I predict in ten years they will be changing the face of Georgian medicine radically. The problem, of course, is getting a U.S. residency. Like Gregory, who in spite of an excellent Part I score (probably top fifteen percent of U.S. applicants for internal medicine), has not gotten an interview out of nineteen programs. We now have had around seventeen Georgians in our residency programs, either completed (one on faculty, two others fellows--Yale and Emory) or in the process.

I met with Ketiv Stvilia, Beso Stvilia's sister. She was a Muskie fellow, has an M.S. degree in Health Management and Policy from New York University. Internship with George Baer, cardiologist there who also does work for Soros in Tbilisi. She is interested in being on the faculty of the MBA school. Needs to see Bijan.

Met with Tengiz of AIDS institute. Gave him some material sent by Carlos Franco. He wants to send someone to U.S. to work for a year. He and Carlos have a \$350,000 grant from World AIDS foundation (also for some other countries).

To a glittering gala given by Ramaz Khurodze, in celebration of his second election as rector of Georgian Technical University. He invited the rectors of all the state institutions, and there was plenty of toasting. Also a lot of singing. Georgians love to sing, and I think every one of them, with the possible exception of Archil, excels at it. Temur Khurodze, brother of Ramaz and provost of TSU, was the star. Levan Khurodze was there, and I talked with him about his plans for Atlanta. I will meet him, and help him find a place. Wants one he can bring his wife to in a month. Will have to be on MARTA line, since he probably won't have a car.

Dinner with Archil. Leisurely conversational wandering along lines we are working upon.

Saturday, December 26

Had breakfast with Jane Carboy, wife of European Union Ambassador to Georgia

Dennis Carboy. She and Lisa Kaestner are in a joint project about an orphanage in Kaspi. Lisa works with Eurasia foundation (NGO with lot of U.S. AID money; funds partially the MBA school). I have known Lisa for a number of years over here; formerly director of UMCOR. Here is what they say about this orphanage:

Summary of Conditions at Kaspi

Even under the best of conditions, children with special needs and disabilities face obstacles and challenges that most of us cannot imagine. But in a village about a two hour's drive from Tbilisi, the capital of the former soviet republic of Georgia, brave children who suffer from a variety of mental and physical problems, ranging from mild retardation to severe disabilities, wake up each day to conditions that are so dreadful, that even the most hardy of us cannot imagine. "As a member of this society, an employee of an American humanitarian organization, a mother, and a Georgian woman, I was deeply shocked witnessing the harsh conditions in which the children from Kaspi Orphanage were forced to live" is how Khatuna Zaldastanishvili, UMCOR Acting Head of Mission, described her first visit to the Psycho-neurological Boarding School/Orphanage near Kaspi.

At the Kaspi Orphanage children not only have to endure the daily strains and difficulties dealing with their disabilities, but also have to live in conditions that animals would find unbearable. Until only two years ago, the children's toilet was a hole in the floor leaving the quarters with the smell of open sewage. In 1996, the system was repaired by international organizations. Unfortunately, the new bathrooms have not been maintained or cleaned by the staff. They remain filthy and unsanitary. Humanitarian aid providers fear the spread of more serious diseases due to these horrific conditions.

Like most areas in Georgia, the electricity supply was and continues to be a problem at the orphanage. Winter is approaching with no signs of improvement in sight. Electric heaters that were designed to need fewer hours of power to store enough heat to warm a room for 24 hours were not used last winter because the Director did not want to spend money on electricity. Hot water tanks were also installed but were never used for equally implausible reasons. The children of Kaspi therefore had to endure extreme cold and rarely bathed.

The children often have scabies and other infections that spread wildly throughout the orphanage. The staff have complained that medicines are not available to treat the children. The Director, however, knows about numerous humanitarian aid agencies that are able to provide medicines when presented with lists. In addition, serious medical conditions have been outright ignored due to the lack of qualified doctors in the region. Unannounced visits by a foreign professional resulted in the emergency evacuation of two bedridden children in the spring of 1997 which was followed by the evacuation of an additional eleven bed-bound children.

Kaspi is a tragedy. While most of the 82 children's institutions in Georgia strive to give children the special attention they need, the Kaspi Orphanage stands out for its

omissions and negligence. In 1994 24 children reportedly died because of these horrific conditions. The state of the orphanage is alarming, particularly in terms of the quality of care provided the children. Numerous visits by donors and concerned observers have shown that the children live in a social, psychological, and emotional void. The orphanage is, essentially, a “storage facility”.

The children at Kaspi have been labeled as either physically or mentally handicapped, and restrictions are placed on their opportunities to develop and grow towards their potential. The management at Kaspi considers a blind or deaf child, or a mentally impaired one, as incapable of learning. A child with epilepsy is regarded and treated as handicapped. And some of the diagnoses of physical handicaps appear suspect.

The thing that is most urgently needed is better care and tailored programs for the children that will help them either mainstream into society or live up to their potential with dignity within an emotionally, psychological and socially caring environment. Unfortunately, this is not possible at Kaspi as training the staff and management does not result in long-term changes in the care of the children. For example, after receiving a year and a half of specialized training from ECHO and UNICEF, at a cost of \$75,000, the caregivers at Kaspi are not applying any of the newly taught skills. As a result, the Kaspi children remain isolated and far away from skilled care and medical attention.

For these reasons the relevant Georgian authorities and international humanitarian agencies have decided that further assistance to the present home at Kaspi is futile. What is needed is a new environment for these children. They should be housed in a facility located close to adequate medical care. Its management and staff should be dedicated and committed to providing a safe and caring home where the children will be able to play and laugh – as is every child’s right. And there is hope. The First Step (TFS), an organization made up of dedicated Georgians and foreign nationals, is committed to changing the situation for these and other disadvantaged children in this troubled country. Its mission is to improve the level of care and living conditions for disabled children, and to remove the stigma that Georgian society continues to attach to physical and mental imperfections in children.

To give the children the emotional and medical care they need, TFS plans to establish a care center in Tbilisi. It is to be a home and daycare center offering model care for mentally and physically disabled children as well as specialized training for caregivers. Within the next two years, TFS’s plan is to design and build the facility, and to develop a cadre of professionals who will provide specialized care to these troubled children and who in turn will train other caregivers throughout Georgia. The staff will be trained in modern techniques for the treatment and rehabilitation of children with disabilities.

This program will immediately benefit about 100 children (80 residential patients and 20 day care patients). About two-thirds of these children will transfer initially from the Kaspi Orphanage with the remainder coming from communities in and around Tbilisi. Once the \$450,000 home has been established, its staff will assist in the selection and training of other professionals who care for disadvantaged children throughout Georgia.

Thus, the project could indirectly benefit all institutionalized children in the country and may, potentially, reach beyond the border to raise the level of care for other children in the region.

While the Georgian Minister of Social Security has undertaken the funding of the day-to-day running costs of the center, TFS is seeking an income generating possibility for the center so it will not be completely reliant on state funding. In short, the project is presently in the planning stage. Detailed plans, cost and funding which determine when construction can begin are expected to be available in early 1999.

Hopefully soon, these children who face extremely difficult circumstances will be able to grow up with dignity and have an opportunity to lead a much better life. Children, whether normal, disabled, or disadvantaged, deserve nothing less.

We talked at length about her project. Estimate building and equipping the orphanage and running it for a couple of years will cost at least \$1 million. She asked me a question of what I thought about the corruption present in Georgia, and how I responded to it. I said I focused upon the bottom line, upon getting things done. "What if you see something blatantly corrupt?" I said of course I would find that unacceptable and would let it be known. Unusual question in the context.

We agreed the Rotary club was a good funding possibility for some of the money, and I will help her any way I can. I plan to visit the orphanage when I return.

Another meeting with George Turkia and review of the plans for the MBA school. The forty students will take prerequisite courses beginning in March: economics; statistics; financial and accounting. Then for one year basic courses, followed the second year by a specialization in hospitality, accounting, health management, etc. They will be trained in taking the U.S. GMAT test, and will be expected to pass it as a condition of graduating. September, 1999 will be the official beginning. George has planned a series of functions to solicit students: will meet the graduating classes of all faculties of all three schools in next ten days; a TV "roundtable" which is an advertising show; and TV spots for one week.

Then I met with Archil, Zviad, Dito, and the nurses to rough out our plans for writing our new proposal to AIHA/AID, due probably sometime in February. Our first cut:

KUTAISI REGIONAL CENTER

- NILC satellite, including distance learning. Zviad, Carol.
- EMS: Dito. He will decide amongst: nuclear/poisons/oil fires/advanced trauma
- Nursing:

Learning Resource Center: Lia, Laura Hurt, Judy Wold
Courses (Leadership & Clinical Skills): Lia, Laura, Judy
-Outreach and community health: Archil; Dodo Shelia; Lia; Laura; Judy
-Neonatal/Maternal and Child Care: Archil
-AIDS, TB, Sexually Transmitted Diseases as outreach/prevention/education: Carlos del Rio; Hank Blumberg, Archil, Zviad
-Poison Control Center Satellite: Loren Garretson; Zviad; Dito

NATIONAL INFORMATION LEARNING CENTRE

-Distance Learning: Dato; Zviad; Carol; Gia/Nino; Vlad. (Georgia Tech as resource?)

Focus on Nursing School plus MBA school

-Publishing: Zviad
-Remote users: Dato
-Marketing: Zviad
-Enhancements: Zviad

NURSING

Nursing school: Judy; Gela; Lia
Nursing Learning Resource Center: Lia; Judy; Laura Hurt
Primary Health care Nurse Training: Lia; Judy; Laura
Tbilisi
Kutaisi

EMERGENCY MEDICAL SERVICES TRAINING CENTER: Dito

POISON CONTROL CENTER: Loren Garrettson; Archil

TELEMEDICINE: Archil; Ken Walker

Meeting with Minister of Health; his emphases for partnership

Health Watch: as in Steve Sapirie
AIDS-STD
Silk Road Health Care Infrastructure
Demographics of health
Drug Abuse issue: is there one; how much?
Sanitation Laboratory: how does this work in U.S.?

The sanitation laboratory question has recurred several times now. Water purity is a great problem in Georgia. As mentioned previously, the Minister has decided to merge clinical, public health and sanitation laboratories. I will try to figure who I know who knows something about sanitation laboratories.

We went to the Ministry of Communications and met with the Minister and two of his associates. He is new, having replaced one who had been minister for many years. The old minister was very unhelpful. Also had huge new house with Mercedes in Tbilisi. This one was trained as an electronic engineer, specializing in radio. Very much a U.S. type. We described what we had done with the NILC, our vision for networking libraries throughout the Caucasus, and telemedicine. Archil described at length the British telemedicine setup, and the Minister was excited. He pledged his entire support. Archil and I have decided the telemedicine project will be next on our list.

Archil and I met Maureen Brand in the Tbilisi open marketplace. This occurs every Saturday. It is gigantic, covering several acres. Everyone comes out of the woodwork from all the surrounding area and brings out their family heirlooms, etc., for sale. I had heard of this but had never been before. It is perhaps just as well, because I can see how even someone like myself could get totally addicted. I bought something I've wanted for some time, the 'mother's medals' of the former Soviet Union, a complete set of them. These are medals given to women who had 3, 5, 7, 8 and over 10 children (I may be off in the numbers). Wearing one gave that woman the right to go to the head of any line, or at least ahead of any woman with a lower number medal. They are quite prized, and a set is getting scarcer. I am indebted to Maureen for pointing them out to me. Maureen is addicted to the marketplace, and goes there often.

Archil took me to a CT scanner that has been set up by a group of Georgians and people from the U.S., including Archil. A used Siemens or Phillips scanner, with a second one just bought and being unloaded to serve as spare parts. They plan to set up a teleradiology network throughout Georgia ultimately. Very impressive.

Lunch with David Aslanishvili, a thirty year old banker who is also on the faculty at TSU. He will be on the faculty of the new business school, and is coming to Atlanta in two weeks for one semester at GSU. He had been very quiet in my earlier encounters with him, but at lunch he was very articulate, even very talkative and engaging. On previous occasions his elders have been present, which undoubtedly accounts for the difference. I will look forward to spending time with him when he is over here.

A meeting with Amiran Gamkrelidze. We reviewed with him Steve Sapirie's concerns, and agreed to bring them up later with the minister.

I went back around 6 p.m. to Betsy's, and met David Arveladze. David works in the AIDS Institute, about 24, applying for residency. We went to the home of his parents, and had a supra. Mother, father, family friend (agronomist), and younger brother, age 18, who goes to a school in the U.S.. Freshman there, home for Christmas. Bright, personable, articulate. He is emblematic of the new generation of Georgians his age,

who are coming in large numbers to the U.S. to get their undergraduate education. In appearance, outlook and facility with English could swap places with my 18 year old nephew Jared, who is a freshman at Auburn. The impact these youngsters will have on Georgia in about fifteen years is fascinating to think about.

The supra took about thirty minutes. A ritual formality. Try as I might, I haven't been able to get across to the Georgians the concept of having a drink and chat for thirty minutes. It is a supra or nothing. I used to feel badly about them setting out an elaborate meal that lasts thirty minutes, but finally have gotten around to accepting it as long as they are unwilling to change and accept my staying for only a few minutes.

Back to Betsy's and a meeting with the wife and mother of Nick Chitaia. He is about thirty, is at Grady this month. His mother is an anaesthesiologist, his wife an internist. Nick is intent upon getting his training in the U.S. We went to a pub and had drinks. This is one way to get around the supra problem; insist on going to a bar; problem is the older ones usually will downright refuse to have the supra ritual sabotaged in this fashion. The mother could have been an Atlanta matron: warm, gracious, sophisticated, elegantly dressed in fur. We talked about Nick, and about their work here. She works with a famous surgeon here, and gives anaesthesia for four or so operations a week. We went by their flat for her to get something. They live on the thirteenth floor, and the elevator hasn't worked for almost a year. She is fifty and fit. Went up the stairs in a few minutes, came down, wasn't winded. I shudder to think of the state I would have been in.

To Betsy's again, and a meeting with Giorgi and Saba. To the same pub for drinks. Discussed their coming to Emory hopefully for internship in July.

Dr. Zangaladze came by Betsy's. His son Andro is an intern in Atlanta, will go to Jefferson next year as a resident in neurology. The father has a nursing school over here. Tuition is the force behind a lot of schools here. He gave me letters to bring back to Atlanta.

Gia Kurdgelashvili came by with his American friend Cynthia. He had brought for me a to be treasured copy of the "Caucasus Health Sector Assessment" prepared for AID by Christopher Bladen et al of GHM International. This is an excellent assessment of health in the Caucasus that many of us contributed to in one way or another. It was supposed to be the basic document for long range strategic planning in the health sector by AID, but so far that hasn't happened.

Dinner with Archil. Talked at length about the NGO that our partnership will be turned into in a few days. The scope of activities will be enlarged greatly. Already heard from

an NGO in Washington that wants it to be in charge of getting people to distribute \$10 million of pharmaceuticals in areas of the Caucasus countries devastated by war.

Sunday December 27th

Levan Kacharava came by and we had breakfast in the Metechi Palace Hotel, now the Sheraton. Beautiful hotel, but has zero character compared with Betsy's. Levan then took me by the Iveria Hotel. Famous, twenty-odd story old hotel, now filled with refugees. At the base there is what used to be a casino. Levan is refurbishing it, and plans for it to be a nightclub and restaurant. He also owns the hotel. Told me the refugees stay there free, and the government expects him to pay the utilities and keep up the premises free.

To the NILC, where I met Kakha, a cardiologist who spent two months at Crawford Long Hospital learning echocardiography with John Merlino. He teaches clinical pharmacology at Tbilisi State Medical University, but is resigning: "The students are 'defiant'." I was puzzled at his use of this particular word. He explained. Clinical Pharmacology requires a lot of basic knowledge. The students are not ready to comprehend it. I asked if this had been a recent change, and the answer was 'no.' He said "they study after they graduate, when they start their specialty." They don't feel the need of knowledge until then. He said an additional factor was that medical students didn't know whether they would have a job as a physician when they graduated, or would have to enter another field. So there was less of a reason for them to study until it became clear they would indeed function as physicians. "Not motivated and not interested."

Some other factors I would add is I think the curriculum in medical school is in severe need of updating. Due to a host of reasons modern information is not presented: faculty not informed; texts and other material not available; curriculum not much changed since many years ago; resistance to change. In addition the instruction in medical school has little clinical content: students are spectators, unlike here where they are given responsibility for patient care. Also, comprehensive clinical exams are not taught to the students. As one physician said to me, "we are not taught to look into eyes unless we are studying to become ophthalmologists."

The outdated clinical years curriculum, as well as severe lack of modern technology, is reflected in their very low USMLE II scores. On the other hand, some of them do superbly on Part I (just as some from Caribbean offshore schools do), reflecting that what is asked in USMLE I comes from textbooks, which the smart students can learn themselves.

Kakha did not think there had been any recent change. He probably overstated the case, but undoubtedly a lot of truth in his remarks. I personally think a lot of his criticisms apply to most schools outside the U.S. and Canada: little clinical work in medical school, with the clinical skills being learned in residency. Kakha proposes to give one day seminars, "at the same level as those I took at Emory," in an attempt to improve their lack of knowledge in his field, cardiology. He has come up with a schedule of these seminars for the next several months:

- Valvular heart disease
 - Beta-blockers in heart failure
 - Basic cardiac electrophysiology
 - Mechanisms of arrhythmias and anti-arrhythmic drugs
 - Ventricular arrhythmias
 - Atrial fibrillation and flutter
 - Antithrombotic treatment of myocardial infarction
- etc.

Some topics that would be covered in the seminar on valvular heart disease:

- Hemodynamic overload and left ventricular hypertrophy
- Prevention of rheumatic fever and bacterial endocarditis
- Echocardiographic evaluation of valvular heart disease
- Aortic stenosis
- Mitral stenosis
- Surgical treatment of aortic and mitral stenoses
- Aortic regurgitation
- Mitral regurgitation
- Vasodilator therapy of aortic and mitral regurgitation

I thought these were outstanding topics for one day seminars, and recommended he put the slides and other material, such as videos, on the NILC home page so they could be accessed by all, both in English and Georgian.

We presented this idea to Archil, and to my stunned amazement he was violently opposed, with much loud discussion occurring between him and Zviad in Georgian. After I finally got the language back into English I discovered his objection: the scientific societies, such as cardiology, were being totally bypassed. He said the societies were very mindful of their responsibility as the guardians of what was right and wrong, and if the topics were done without their approval they would become quite adversarial and torpedo the project. He said there was already concern about the NILC existing outside the societies, and their fears would be exacerbated with the one day seminars without their backing.

I instantly understood where he was coming from, and supported him. I recall how William Osler was so mindful of creating and dealing with medical societies, and using them to elevate the professionalism of physicians. I suspect the importance attached to the imprimatur of scientific societies is even greater in the former Soviet Union than in the U.S. We all agreed that a priority of the NILC needed to be to get the medical scientific societies involved with the NILC, and get their support of and participation in the one day seminars. The way to do this was to give them something. I left it up to Archil, Zviad and Kaha to decide how to do this.

This has been my second big enlightenment recently about another culture and the NILC. The first was the lack of a concept about marketing, which I missed also until just recently. The second is the absolute necessity of involvement of the scientific societies in what we are trying to do. Live and learn.

Archil, Zviad, Dato and I then had a meeting about marketing the NILC. This was based on a meeting a month ago they had with Gia Bochuchava and Nino, who are Georgian computer specialists who work with HomeCom here in Atlanta. We discussed a number of issues. The NILC has twelve remote users. The service we provide them is terrible, due to several reasons. One is fact we don't have someone to help them on a 24 hour basis, and even can't help them some times when library is open due to other demands. Second is the problem with the lines between the NILC server and the remote sites; service is abysmal. The only advantage the NILC has over the primary internet provider is access to Ovid, with its full text data bases. This is a huge advantage that we need to exploit. We need to come up with a business plan of what we plan to offer the big users, and exactly how to go about it. We discussed the need for a business manager and marketing person. We are excited about the prospects of having a distance learning facility in the NILC, provided we get support for it. We have big plans about the regional center in Kutaisi, and about telemedicine. We have just put in a \$500,000 grant to Soros, to give stability to the NILC for five years. We are hopeful about getting it, but not optimistic. From our letter to the Soros Open Society Foundation:

We are enclosing a proposal to OSI for the National Information Learning Centre (NILC) in Tbilisi, Georgia. The period covered is for five years and the amount requested \$466,850. We received two grants totaling \$59,000 from OSI in 1995-97. The purpose of the current proposal is to enable us to put what we are doing on a stable foundation, and to extend our efforts to involve a much larger number of health professionals and the general public.

In the past two years, the NILC has demonstrated its ability to train

students and professionals in the use of Internet resources, email, and biomedical databases. The technical staff have proven ability to plan and implement network connections for locations remote from the NILC. The NILC has received recognition from the international community. Its ability to recruit and retain staff is remarkable in the fluid economic environment in Tbilisi. The proposal presented here describes a vision for the next few years that will permit the NILC to help Georgia make full use of the world of information available through the Internet.

We'd like to give the philosophical underpinning of our efforts with the NILC. The development of human society has had as a principal pillar two kinds of information technology: the technology of information recording and storage, which has made it possible to replicate in ever-increasing volumes the recorded memory of human beings; and the technology of information transmission and delivery. The progress that has been made with these two technologies during the latter part of the twentieth century is most remarkable. It is possible now to store such vast collections of recorded multimedia information as the Library of Congress in a single machine; and to transfer this information anywhere in the world - and beyond - nearly at the speed of light.

A large part of the fabric of Western society is woven with information passed down to us from the civilizations of Greece and Rome. E.g.: respect for individual rights; the rule of law; separation of spiritual and temporal authority; social pluralism; representative bodies. Virtually every aspect of our culture reflects how we used this information to construct our society. Other knowledge stores include structured knowledge for both formal and casual learning, experiential information for purposes such as health care; and vast volumes of facts and data useful in everyday life situations. This large volume of recorded and reasonably well organized knowledge is available primarily in the Western world. Developing countries and societies at the moment have little access to any of this information. But this information has enormous potential utility for all the world.

Perhaps the most poignant question to ask at the outset of the next century and millennium is how can all mankind best benefit from this knowledge and the information technologies available to store and transfer it? Our answer to this question is as brief as it is unequivocal: we must place the wealth of existing, purposeful human knowledge at the disposal of the less advantaged peoples and countries, and assist them in using it.

The NILC Program in the Republic of Georgia is intended to demonstrate the practical feasibility of a developing country gaining access to the global knowledge resources, and assessing the effects and benefits of the use of these resources. The Program is intended, furthermore, to do it in

a manner that allows its thoughtful replication by other countries and in other parts of the world.

Clearly, an attempt to accomplish this objective across the entire societal realm of a country is too ambitious. The selected domains of the NILC Program therefore are health care, and medical education. The sine-qua-non elements of activity in each domain are:

- 1) Substantially increasing the level of awareness of electronic information resources in the health care and medical education communities of professionals and the public through massive programs of user training and public relations;
- 2) Implementing a nationwide physical communications network, sufficiently robust to accommodate the majority of the members of these two communities to access global electronic knowledge resources via the Internet;
- 3) Designing modifications to the existing infrastructure of these two domains (in terms of new programs, procedures, facilities etc. for clinical practice as well as medical training and education);
- 4) Designing and implementing new information services featuring innovative usage of information technology and knowledge resources; and

We'll keep our fingers crossed.

A visit then to Ramaz Khurodze, rector of Georgian Technical University. We talked about the visit of his son to Atlanta, finding housing, etc. He said his university has two big projects occurring. The first is a U.S. style high school, in conjunction with Harvard. There will be fifty students per year for three years. Givi Zaldastani, a Georgian expatriate and financier in Boston, initiated the project (I think). The second is the design of the master plan for Supsa, the port city that is the terminal for the oil pipelines from Baku, Azerbaijan. I spoke with him about a possible visit by Dr. Hans Püttgen of Georgia Tech, with the idea of some sort of joint project with Tech. He was quite receptive. Last January he and I met Dr. Püttgen in Metz, France, where he is head of Georgia Tech Lorraine, a branch of Tech that could serve as a model for Georgia. Ramaz had not been aggressive, in my mind, about pursuing that possibility, which to me seems like a fantastic opportunity. I asked Archil about this, and he opined that Ramaz was a cautious man who moved only when there was money. Dr. Püttgen has said that money is the least problem. He feels, based on extensive experience, that money will flow freely from the European Union with Shevardnadze's support. I plan to pursue this.

A final meeting with the Minister of Health, Avto Jorbenadze. We discussed the proposals our partnership will make for AID money in February. He is interested in us paying some attention to the regions of South Ossetia and Ajara, areas that have had warfare and where the health problems are severe. He says rehabilitation money is available. We discussed the telemedicine project, which he was excited about. He said the architectural plans for the new general hospital were in process, and should be ready soon. We hope the hospital, that is funded with World Bank and Japanese money, will be ready in two to three years. We talked about Steve Sapirie's comments on the health sector, and he set up an appointment with Steve. He was attracted to the idea of the Health Watch. He spoke at length about coming up with a health infrastructure for the "Silk Road." This is the ancient road from China to Europe, that crosses Georgia. The phrase has had a rebirth today, especially with regard to an electronic highway that follows conceptually the same route. He wanted our partnership to think about what such a health infrastructure might entail. He wanted us to consider demography studies in Georgia and surrounding areas, by which I take it he meant a study of disease prevalence. As he put it, the "social-psychological-dermatographic" aspects of disease in the Caucasus. He said Family Planning needed a lot of work, and wondered about the possibility of Bob Hatcher of Emory getting involved. We discussed the problem of drug abuse. He says he feels there are a number of foundations that might support work with drug abuse and related areas, such as HIV and tuberculosis, as well as preventive programs. He was receptive to the idea of combining the work on sexually transmitted diseases and AIDS, the departments of which now are vertically integrated and unrelated to each other.

Back to Betsy's, packing. On the way to the airport stopped by and saw the wife and son of Levan Vasadze, who lived with me two years in Atlanta. The lad is one year old, and I had helped Levan bring mother and son home from the hospital one year ago. The spitting image of Levan. As I said to the family "there might be some doubt as to who the mother is, but there is no doubt at all who this lad's father is!" Levan has just been named the chief financial officer to Sistema, probably the largest Russian holding company (controls one way or another 35,000 workers/employees), owned by Mayor Luzhkov of Moscow. A really fantastic job for someone three years out of Emory Business School with an MBA.

To the airport to catch the 6 p.m. Austrian Air (Delta partner) flight to Vienna, and then to Geneva. Arrived 10 p.m. after uneventful flight. Met at the airport by Teddy Püttgen (see above) and his son Adrian. Adrian graduated in neuroscience from MIT and has been working the last two years in the Ponce de Leon AIDS center at Grady, after working in our house staff assistant program. This latter is a program for promising college students who are considering college. I was the attending on Adrian's

team, and have gotten to know him and his family well. I mentioned above about Teddy and Georgia Tech Lorraine, which he founded and has headed. He is also the vice chair of electrical engineering at Tech in Atlanta.

Teddy grew up in Sweden, then his parents moved to Lausanne. His father sold various electronic equipment as well as airplanes to the French and other European governments.

We went to Lausanne, which is where the father's home is and I gratefully went to bed.

Monday and Tuesday, Dec. 28th and 29th

Had lunch at Gruyère, and enjoyed the view and cheeses. Dinner with Mr. Püttgen. In his eighties, recuperating from an artificial hip implant a month or two ago. An erudite, urbane, charming and warm human being whose conversation was full of interesting observations and recollections. The next day another ride around the countryside and lunch in a small restaurant overlooking Lake Geneva. I was captivated by Switzerland: the scenery, the meticulously kept farms, the splendid vineyards that make up most of the city of Lausanne, the four languages.

Wednesday, Dec. 30th

Swiss Air to Atlanta, arriving about 2 p.m. Just in time to go to the office and clear out my in box and inspect 200 emails--most of which I had already answered on the road.