

CYPRUS

Cyprus (population 775,927) is an island republic covering an area of 9,250 square kilometres in the far north eastern corner of the Mediterranean Sea.

The island of Cyprus has been divided since 1974 when conflicts between the Greek Cypriot majority and the Turkish Cypriot minority culminated in a Turkish military invasion. The UN subsequently established a buffer zone known as the

‘Green Line’, which separates the two ethnic communities inhabiting the island (Greek Cypriots in the south and Turkish Cypriots in the north). This separation dominates Cypriot life and has a significant impact on provision of health services in the two communities. The internationally recognised Greek Cypriot Republic of Cyprus in the south is now a member of the European Union having joined in May 2004.



According to the United Nations human development index (HDI), Cyprus is ranked 30/177 countries worldwide (value 0.883).¹ This places Cyprus in the group of countries with high human development. There is some disparity between south and north. Greek Cypriots in the south are reportedly better economically with more available human resources than Turkish Cypriots in the north.²

PALLIATIVE CARE SERVICE PROVISION

Current services

There are 2 non governmental organisations (NGOs) providing palliative care services in the Greek Cypriot south: The Cyprus Association of Cancer Patients and Friends (PASYKAF), and the Cyprus Anti-Cancer Society (CACS).

Supportive care is also provided in 3 hospital oncology units, 2 are government funded one is joint government/commercially funded. A total of 8 palliative or supportive care services are provided across the Greek Cypriot south (Table 1). There are no palliative care services for Turkish Cypriots in the north, but there is some voluntary support for cancer patients. Palliative care services in Cyprus currently only provide for adult patients with cancer.

Table 1: Palliative care provision in Cyprus, 2005

	<i>Freestanding unit</i>	<i>Hospital supportive care</i>		<i>Home care</i>	<i>Day care</i>	<i>Clinic/ Drop-in centre</i>	<i>Grand Total</i>
The Cyprus Association of Cancer Patients and Friends				1	1		2
Cyprus Anti-Cancer Society	1			1	1		3
Government funded oncology units: ~Nicosia General Hospital Oncology Center ~Limassol Hospital Oncology Unit Commercially funded unit ~ Bank of Cyprus Oncology Center		1 1 1					3
Total	1	3		2	2		8

The Cyprus Anti-Cancer Society runs 4 services. The 18 bed in-patient unit at the *Arodaphnousa Hospice* in Nicosia; a home care service based at the hospice that covers all districts; and day care centres open twice a week in 4 districts: Nicosia, Limassol, Paphos and Famagusta (see Table 2). Patients, or their families, can self-refer to the Society. Gradually since the mid-1990s as links have improved with the oncology centres more patients are referred by oncologists.

Table 2: Patient attendances in the different services run by the Cyprus Anti-Cancer Society – activity from 1999-2004

	1999	2004
Arodaphnousa Hospice (in-patient)	145	276
Hospice home care (5 daytime teams)	280	660
Day care (4 centres open twice weekly)	-	14-18 per centre
Total attendances - all services		1400

The Arodaphnousa Hospice has increased the number of patients treated each year in the in-patient unit by reducing unnecessary and lengthy in-patient stays. Once symptoms are controlled patients are able to return home, only returning for in-patient treatment if needed. With improvements to the home care service the numbers of patients treated at home increased from 280 in 1999 to 660 in 2004.³ A total of 1400 patients in 2004 attended one or more home care, inpatient or day care services, all of which provide medical and nursing care, psychosocial support, and physiotherapy.⁴ The 4 day care centres also offer a range of other services which can include music and art therapy, aromatherapy, reflexology, massage, hairdressing and manicure. Free transportation is provided for patients to access services, which in 2004 transported around 400 patients.⁵

The Cyprus Association of Cancer Patients and Friends (PA.SY.KAF) This organisation offers 3 services, including home care, day care and psychosocial support (see Table 3). Within these services the Association runs a lymphoedema clinic, and a psycho-social support team.

Table 3: Patient numbers in the two key services run by the Cyprus Association of Cancer Patients and Friends – activity from 1998-2003

	1998	2003
Home Care Service (5 daytime teams)	700	791
Day Care (4 units, each opens twice weekly)	-	75
~psychosocial support service	1277	1204
~other supportive and clinical services	-	120
~transportation service	-	634

They offer social support and activities, a free prosthesis service, a ‘stop smoking’ clinic, and free transport to oncology units and day care centres. The Association offers financial help in situations where patients and their family are suffering hardship as a result of the illness.

Hospital oncology and specialist units: There are now 2 oncology units in government funded hospitals which offer supportive care and some palliation⁶ at the end of life to cancer patients: *Nicosia General Hospital Oncology Center*,⁷ and the oncology ward in *Limassol Hospital*. There is also the joint government-commercially funded *Bank of Cyprus Oncology Center*, in Nicosia, which opened in 1998.^{8 9} There is a 6 bed specialist AIDS ward in Larnaca Hospital.

Cancer patients, and their families, may opt for the patient to stay in one of these oncology units, where they can now receive specialist pain and symptom relief, or they may wish to self-refer or be referred to one of the two organisations providing the full range of palliative care cancer services.¹⁰ There are no private palliative care services available.

There are no specialist palliative care services for children or for patients with other life threatening illnesses such as AIDS, but there is some interest in offering supportive care for these groups of patients as Jane Kakas of The Cyprus Association of Cancer Patients and Friends describes:

‘There is an AIDS department in Larnaca Hospital, but I don’t think they see themselves under the umbrella of palliative care. We invite them [to seminars], and we send them anything interesting that comes through. If there was something that was relevant I would keep them informed, same as I do with the paediatric oncologist. I always send him copies of anything that comes through, especially related to opioids or pain in children. They do use morphine with children. But children don’t really die at home, they tend to be admitted to the ward and given IV fluids with morphine. At least they are using morphine now for the children, which is a move forward. There are no government in Cyprus so families don’t feel secure to have the children at home. They would love to have community services, of course, but it’s a long way off.’¹¹

Since 2003, Turkish Cypriots can access the in-patient and day care hospice services in the Greek Cypriot south. Although, no palliative care at home is available in the north there are 2 NGO organisations whose aim is to offer for support cancer patients.

The *Help Those with Cancer Association* is run by volunteers (many are cancer survivors), and with the help of a small number of nurses can offer some limited home nursing care and support, as well as social and financial support to cancer patients during and following treatment, including those at the end of life. Volunteers will also support families, if needed, after a patient has died.¹²

The *Kemal Saracoglu Anticancer and Anti-leukaemia Association*, but as of June 2005, this Association remains at the planning stage in developing a home care service.¹³

Reimbursement and funding for services¹⁴

Cancer patients needing palliative care in the Greek Cypriot south are offered free services funded by either one of two charitable organisations:

The Cyprus Association of Cancer Patients and Friends (PASYKAF) is given an annual government subsidy, which in 2004 was CY£90,000. From 2005, due to problems with government funds, the subsidy is being reduced to around CY£70,000. The Association raises the rest of the total CY£1 million they need to run their services entirely from public donations.¹⁵

The Cyprus Anti-Cancer Society is given an annual government subsidy, up to 2003 this was CY£10,000. From 2004 the government has reduced its subsidy to CYP 1000. The remainder of the required annual budget of more than CYP 1 million is raised mainly from public donation, with some additional commercial sponsorship.¹⁶ There is an annual, highly popular, fund-raising event in Nicosia called the Christodoula March, dedicated to the memory of 'Christodoula' a woman who died of breast cancer during the 1974 hostilities,¹⁷ and her doctor Demitris Souliotis, who inspired the forming of the Society to help cancer patients.¹⁸ Every April marches are held in cities all around the south of the island, along with other fund-raising events, during which the majority of public donations are pledged.¹⁹

The Cyprus government provides free medication via the oncology departments in local hospitals, and also for in-patients at the hospice. The hospice has access to laundry services via Nicosia General Hospital. There are no palliative services for patients with other life-threatening illnesses in government funded hospitals. There are no private (fee-paying) palliative care services in Cyprus. Government health provision in all government funded (including joint/part funded) hospitals or centres is free or at reduced payment for residents who are categorised as eligible for a medical card. Non-eligible residents are required to pay varying rates for different services.²⁰

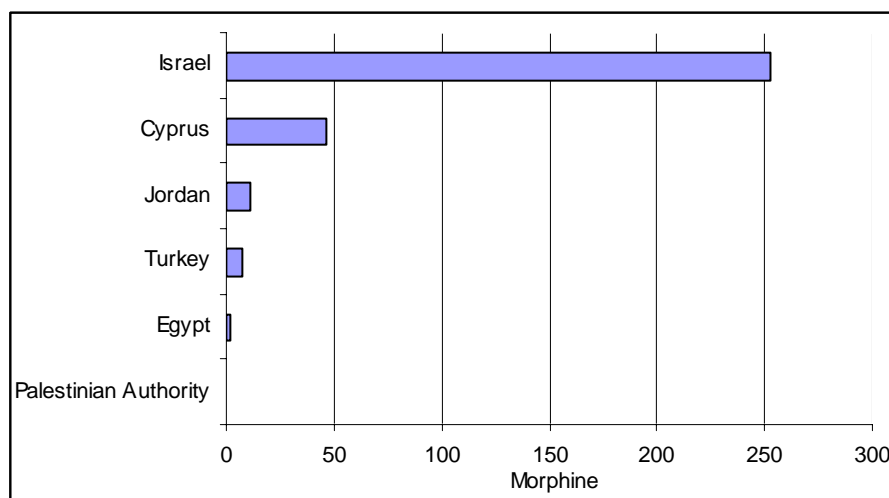
Opioid availability and consumption

The International Narcotics Control Board^{21 22} has published the following figures for the consumption of narcotic drugs in Cyprus during 2002: codeine 6 kg (down from 20 kg in 2001); morphine 1 kg (down from 2 kg in 2001 but was 1 kg in 1998); pethidine 4 kg (down from 6 kg in 2001).

For the years 2000-2002, the average defined daily dose consumption of morphine for statistical purposes (S-DDD)²³ in Cyprus was 46. This compares with other countries in the Middle East region as follows: Egypt 2; Israel 253; Jordan 11; Turkey 7; no reported morphine consumption in the Palestinian Authority during 2000-2002 (see Table 4).

Opioids and other related medications are available throughout the south of Cyprus. Where necessary, opioids are given by injection and syringe drivers are used for pain relief in home care patients.

Table 4: Average daily consumption of defined daily doses (for statistical purposes) of morphine per million inhabitants, 2000-2002 of the six MECC member countries in the Middle East region.²⁴



Source: International Narcotics Control Board *Narcotic Drugs: Estimated World Requirements for 2004. Statistics for 2002*. New York: United Nations, 2004.

There are, however, still some problems accessing oral opioid preparations in larger dosages. As Sophia Pantekhi explains:

‘We’re trying to follow the guidelines from the pain step ladder of the World Health Organisation (WHO). We have enough medication for pain control: MST, Sevredol, Oromorph, and Fentanyl patches. We don’t have any other kind of morphine like Oxycodone or Hydromorphone. If we want to improve pain control, we need higher dosages of Sevredol tablets, at the moment we only have Sevredol 10 and 20mg. We need to increase awareness in health care professionals about how and when to prescribe opioids for their patients.’²⁵

The problem of ensuring that opioid medications are prescribed safely has required that the specialist trained palliative care teams educate health professionals (physicians, pharmacists and nurses) throughout the health system, as well giving clear instructions to the patient.²⁶ Jane Kakas describes the shift in understanding that took place in 1997, following a conference on palliative care pain relief:

‘After the Cancer Pain conference in ’97 here in Limassol, we met many worldwide palliative care specialists and some people from the WHO, including David Joranson - we realized that we have to be not just a cancer association, we have to look at palliative care issues. One of the issues was that we didn’t have enough basic formulations of opioids in Cyprus. So we got together a presentation and we presented to oncologists, government doctors, pharmacists and any other doctors, anyone that was remotely connected, drug reps, anaesthetists. We told them that although there are many options of new drugs on the market we believe you only need to have a small handful of drugs. So we suggested five formulations and an alternative opioid. Janssen was there already introducing Durogesic anyway. And we took this forward and with the backup of one specific oncologist and government pharmacists who understood what we were saying – we presented it to the government and they said yes and they ordered them for us. So we got of MST 10 mg and 100 mg, morphine in 30 ml ampoules of (we don’t have diamorphine here), and we needed this morphine for the

syringe drivers. We also got morphine suppositories and MST 30 mg in sachets for easy swallowing. We tried to influence doctors and nurses about how to use these new drugs, and even the pharmacists – I always mention the pharmacists because pharmacists play a huge role, and they have to know why somebody's going to the hospital to collect so many ampoules of morphine for the syringe driver. If they're not aware of what a syringe driver is and that's why we require a large dose of morphine regularly, they question the patient and sometimes send them away and tell them, "Why do you need all this? You had some three days ago. You can't come back for more." We just need to convince the policy makers understand that it's okay and the pharmacists should have adequate information and education. So the achievement, I think, was to get the medications imported and dispensed by the government pharmacies. For us in home care who knew how to use them it was great because we were suggesting to the doctors to please prescribe that and we were very happy as they were, mostly, willing to cooperate with us.'

As Jane Kakas points out there is still a great need to develop a protocol and continue to provide basic education in palliative pain control:

'We need to have some protocols and education for the selection of patients that go onto Fentanyl because sometimes patients who are not stable on their pain control are prescribed Fentanyl. Some doctors aren't sure of the basic WHO ladder, they're not aware of breakthrough pain, they're certainly not aware of breakthrough pain dosages when using Durogesic, so there's a huge amount of work to be done still on very basic symptom control. Now I know there are great opportunities for Oxycodone and all these other things. But I think we are not ready to handle more opioids than we already have. There's a risk of confusing people, and the stuff we've got, they don't know how to use that yet. So there's a lot of basic education still needs to be done on that front.'²⁷

National and professional organisations

The Cyprus Anti-Cancer Society

This organisation was established in 1971. In 1976 the Society established the Arodaphnousa Hospice in Nicosia, which was dedicated to nursing patients dying of cancer. From late 1991 the organisation started to offer home care, through the services of hospice nurse, Neophyta Kouppi, who had completed a palliative care training course at St Christopher's Hospice UK. Over the last 10 years hospice staff have developed a multi-professional palliative care team, including 5 separate teams for a daytime home care service and a lymphoedema clinic. In 2000 the hospice was officially recognised as a palliative care centre. Through the hospice, the Society has developed and now funds the 18 bed in-patient service, the home care service, and since 1998 has opened day care centres in Nicosia, Limassol, Paphos and Famagusta.²⁸ The Society funds public education programmes such as the 'Non-smokers League', 'Quitline', a call-in stop smoking service and also a stop smoking clinic, and public lectures on cancer prevention. It also funds specialist training and education for health professionals working in palliative care and oncology in Cyprus.

The Cyprus Association of Cancer Patients and Friends (PA.SY.K.A.F) was founded in 1986 by anaesthetist, Dr Anna Achilleoudi, who was herself a breast cancer survivor, together with a small group of women dedicated to 'the improvement and safeguarding of the quality of life of cancer patients and their families'.²⁹ In 1992 the Association was keen to develop palliative care by setting up a home care service, and employed a British clinical nurse specialist with palliative care training and experience, Jane Kakas, to start the first team, based in Nicosia. Through the combined effort of many health professionals and

administrators the Association has since funded the development of offices in 5 districts around the Greek Cypriot south, from which they run teams for home care, day care and psychosocial support. The three aims of the Association are:

- to promote awareness about prevention and early detection of cancer to the public, for instance, publishing leaflets about going to have regular checkups and healthy eating
- to educate health professionals in cancer care and palliative care
- to provide patient services such as home care for cancer patients, over the age of 16, at any stage of the disease.

There is also a small organisation called ‘*Friends for Life*’ in Limassol, whose members plan to raise funds for a new hospice and day care service in the area.³⁰

Palliative care coverage

There are palliative care in-patient facilities at the Arodaphnousa Hospice in Nicosia. Pain and symptom relief is offered at the in-patient oncology unit within the general hospital in Nicosia – and at the Bank of Cyprus Oncology Center. In Limassol there are facilities for care on the oncology ward in the general hospital. In Larnaca there are facilities for care of AIDS patients on the specialist ward in the general hospital (see Table 5).

The two palliative care NGOs provide home care teams throughout the 5 Greek Cypriot administrative districts (Larnaca, Limassol, Paphos and in Greek Cypriot areas of Nicosia and Famagusta). There are day care centres in all 5 Greek Cypriot districts offering patients a minimum of twice weekly services. Both NGOs offer a range of psycho-social services throughout these districts, although there are no formal bereavement services.

Table 5: Palliative and supportive care in-patient services in Cyprus

Facility	Service	Provision
Arodaphnousa Hospice	Specialist palliative care unit	18 beds
Oncology Unit – Nicosia General Hospital	Pain and symptom relief	22 beds
Bank of Cyprus Oncology Center – Nicosia	Pain and symptom relief	30 beds
Oncology Unit – Limassol Hospital	Pain and symptom relief	In-patient facility on general ward
AIDS ward - Larnaca Hospital	Symptom relief	6 beds

There is no palliative care coverage in the north (including the districts of Kyrenia and the Turkish Cypriot areas in Nicosia, Famagusta and a small area of Larnaca).

Education and training

Both cancer NGOs see education and training as an important part of their work. Both, for example, are members of the European Association for Palliative Care (EAPC) and encourage their staff to attend EAPC conferences and training programmes. A recent series of lectures, organised as a combined NGO effort to disseminate the Council of Europe Recommendations for Palliative Care, attracted a total of 220 local health professionals.

In the last 5 years the *Cyprus Anti-Cancer Society* has funded 2 physicians to complete Masters' courses in Palliative Medicine in the UK. In recent years 3 nurses have completed specialist palliative care training, although only one nurse has stayed on working with the Society. There is now a two week introductory placement in the hospice for all second or third year student nurses at the School of Nursing in Cyprus. The Society is committed to encourage all staff to take part in training, some at seminars provided by the hospice, but they also fund travel to international conferences or scholarships to complete specialist courses, such as Diplomas in Palliative Nursing: Sophia Pantekhi explains:

'We try, every year, to encourage our staff to attend courses related to palliative care. For example, every year we organize a 2 day seminar on psychosocial oncology. We have had courses on lymphoedema treatment. Our staff attend seminars in Athens and a few members of the nursing staff try to attend the hospice programme in St Christopher's, either the multi-professional week or the three week programme. Every year we have, with the cooperation of the oncology department, had a closed workshop for the support of the staff to prevent burn out.'³¹

The Cyprus Association of Cancer Patients and Friends funds training programmes, such as distance learning courses in palliative care at degree and diploma level for doctors and nurses. The Association also organizes short seminars and conferences. Since 1999 the Association has also funded specialist training courses for doctors, nurses and physiotherapists in different aspects of palliative care such as pain relief, wound management, lymphoedema care; and short courses in psychosocial, communication and bereavement issues, symptom control, and breast cancer. The Association also has links with the School of Nursing in Nicosia, as Jane Kakas explains:

'The School of Nursing have recognized our work, and they send us their training community nurses, who are doing on a postgraduate one year community nursing course.'

To date three courses have run with around 26 students in each year, but as Jane notes:

'None of them have actually gone into the community, they've all gone back into the hospital because there is no infrastructure. So they've been sending us for the last three years their nurses to spend time working with us, so at least they can see an aspect of community care. It's very experiential learning for them; we don't have the backup for such training in a very organized fashion. We might organize a bit of a study day on grief and bereavement or a pain lecture for half a day, but it's very informal. However, they get the experience of community nursing. We try and place them in the community actually with the home care nurse for anything from 3-6 days, that's all we can offer. We sometimes offer a day with the lymphoedema service and a day with a psychologist.'³²

Both NGOs express the need for an expert committee to work with the government in planning and developing palliative care services and to lobby for policy development. In particular, they would like to see policy which allows provision of the full range of palliative care services in government funded hospitals, available to all patients with other life threatening illnesses.³³

Palliative care workforce capacity

The Cyprus Anti-Cancer Society: As of 2005 the Society employs around 69 full and part time health professionals, 18 administrative staff, 10 kitchen and cleaning staff; including at the Arodaphnousa Hospice: 1 medical director, 1 physician, 24 nurses, 1 social worker, 1 physiotherapist, 1 aromatherapist, 1 volunteer reflexologist. The Society employs 2 full time and 5 part time psychologists to work across all their services. The home care team is supported by hospice staff and in addition employs 13 nurses including a senior nurse, and nurse co-coordinator. Volunteers support day care services.

The Cyprus Association of Cancer Patients and Friends: as of 2005 the Association employs around 53 staff, with 13 administrative staff and 40 full and part time health professionals (3 physicians, nurses, social workers, psychologists, physiotherapists). Each of the 5 home teams has 4 nurses. Volunteers support all services.

HISTORY AND DEVELOPMENT OF PALLIATIVE CARE

Narrative history of palliative care

Specific care for cancer patients at the end of their life started to be established in the mid 1970s, initiated by the Cyprus Anti-Cancer Society, whose founder members recognised a need for support in the population. As Neophyta Kouppi, now the Matron at the Arodaphnousa Hospice, Nicosia, explains, in the early days:

‘Few people in Cyprus knew about hospice and palliative care. We started because we wanted to help the cancer patients to have somebody to care about them. Because after the Turkish invasion and all the problems we’d had in the general hospital with refugees with cancer and nobody to look after them and all those problems, we thought we needed to build a home for them and take care for them. But we didn’t know about hospice philosophy. Later on, we heard about hospice care and that was after, I think, the second meeting in London with Cicely Saunders. One of our members, Dr. Soulitis, an oncologist, heard about St. Christopher’s, so he went there to visit and he when he returned with many ideas about hospice care and how to control pain and symptoms. So we started to do more things actually about pain, with medicine; for example, to give medications regularly, so as not to be in pain. After a few years we helped the families to spend time with the patients, and encouraged them to go home on weekends, you know, to spend time with their family. But we didn’t know that this kind of care is hospice care.’³⁴

By the beginning of the 1990s, there was increasing awareness of the concepts of palliative care. Both organizations, Cyprus Anti-Cancer Society and The Cyprus Association of Cancer Patients and Friends (PASYKAF), independently recognized the need to develop home care services. Neophyta Kouppi describes her early work setting up the home care service as part of her work in Arodaphnousa Hospice:

‘From the end of 1991 in November, I started to visit the Oncology Department in the general hospital and meet the patients who had finished their treatments and were going home. I used to visit the Oncology Department twice a week in cooperation with the oncologist to meet the patients and their families. I gave them information about the home care we could offer them. After their agreement we would start visiting them at home.’³⁵

Within a year she had started to enlist more help from two other nurses at the Arodaphnousa Hospice and had engaged medical support from the hospital oncologists, who prescribed medication to be taken at home. She encouraged the Society to develop services in more districts of the island, initially in Limassol. By the end of the 1990s, services had been extended to 4 of the 5 Greek Cypriot administrative districts.

In 1992, Jane Kakas, had started to set up the first independent home care team, at the instigation of PA.SY.KAF, in Nicosia. Since this time both NGOs have developed teams in all 5 Greek Cypriot districts. One important innovation developed by PASYKAF has been the 'DITIS' computerised patient record system, which allows the home care team to access a central patient record by internet or mobile. Although, still in early stages of implementation the aim is for all members of the team to be able to share and communicate with each other anywhere on the island and adjust records or discuss problems as needed.³⁶

About 35% of cancer patients now die at home with support from home care teams provided by either Cyprus Anti-Cancer Society or PA.SY.KAF.

Since the late 1990s, both NGOs responded to the need to have dedicated full time physicians in their services, by funding specialist training. For instance, in PA.SY.KAF one part time physicians has completed a Masters in Palliative Care and another part time physician has completed a Diploma in Palliative Care. In the Cyprus Anti-Cancer Society two full time physicians have completed Masters in Palliative Medicine in the UK.

Psycho-social support has been increasingly prioritised by both NGOs. In 1996 the hospice staff requested that the Cyprus Anti-Cancer Society employ their first social worker. In 1999 the Society appointed its first full time psychologist Maria-Christina Tchopourian. She explains the kind of ways the psycho-social staff work:

'We are 2 full-time psychologists and 5 part-time, covering all the Greek Cypriot districts. The hospice I would say is about 30% of my work. The Oncology Centers in Cyprus don't have a position for a psychologist, so the voluntary organizations cover the patients' needs. In the hospice, if the team and the doctor feels it would be beneficial, we meet with the patient or their family. At the beginning, there were only a few referrals, but now it's the majority of the patients we have here. We also do home visits, working with patients cared for by the home care teams, other nurses, and the oncology centres, so a patient can meet with us at any point in their treatment, either at home, in the hospice, the oncology centres or at our offices. The same psychologist will stay with the patient throughout the different stages of their disease.'³⁷

Hospice success stories

The Arodaphnousa Hospice was established in 1976 by the Cyprus Anti-Cancer Society initially as a nursing home for patients dying of cancer. For the first twenty years the hospice was run entirely by nurses. In 1991, inspired by the UK Hospice movement, the Matron, Neophyta Kouppi, attended a course in palliative care at St Christopher's Hospice in London, UK. On her return, she encouraged the Society to develop a dedicated palliative care team. By the mid 1990s they had well-established links with oncologists who would make weekly visits and advise, prescribe and adjust medications. The nurses, led by Neophyta Kouppi, ran the in-patient unit and provided home care, often working long hours in remote areas of the island. In 1996, the Society employed a social worker, who could develop much-needed psychosocial services, and in 1999 employed a full time psychologist. In 1998, the Society funded a scholarship for a doctor to take a Masters in Palliative

Medicine at Glasgow University, UK. Dr Sophia Pantekhi returned in 1999 to the first full time post of Medical Director for the hospice. Since 2002, the Society has been able to fund the specialist training and full time post of a second physician, Dr Eleni Karatzia, who is now working with the Medical Director. By 2000, the hospice had gained recognition as a palliative care centre, able to provide palliative care education, with a multi-professional team. A purpose-built conference room and library is currently being completed at the hospice.

Arodaphnousa Hospice has increased the numbers of patients treated by supporting more people to be discharged back home, once their symptoms are controlled, and to receive care from the home care team. As Sophia Pantekhi explains:

‘We’re trying to keep the patients at the hospice no longer than 14 days depending on their need for pain and symptom control, complementary therapies and whether the family need support with respite care. In the past they just leave the patients to stay here for months and a few of them for a year. We have increased the discharge of patients, we refer them to the home care service.’³⁸

Neophyta Kouppi relates the success of the home care and how it developed from a clear response to the need of patients:

‘I found ladies crying in the sitting room of the Oncology Department, not because the husband has cancer or because he was going to die, but because they couldn’t help him at home and the doctor had said, “You have to take him home, we finished treatment.” And that was very difficult for the family. So I wanted to do something and I was very enthusiastic. I wanted to do many things for cancer patients and I thought that first to go to their house and help them and then they will trust me and trust Cyprus Anti-Cancer Society, and slowly, slowly we changed things, especially with the oncologists. I believe that when they saw the benefits from visiting the patients at home the oncologists were willing to improve cooperation with us. Gradually we started to employ nurses in other districts too, and I used to work here and go round the districts and help the nurses, and slowly we start to cooperate with the local doctors in districts with the social workers, and with the government Welfare Office about economic problems and other problems. And we asked the psychologists from the government services to support patients. Now the Cyprus Anti-Cancer Society employs social workers, psychologists and their own doctors. Now things are much better and easier.’³⁹

Life/oral histories

Neophyta Kouppi – *Matron: Arodaphnousa Hospice, Nicosia*: Interviewed by Amanda Bingley, 8th March 2005 – duration of interview: 35 minutes

Neophyta Kouppi relates how she was the first member of staff to work in the Arodaphnousa Hospice when it was a nursing home, before the Cyprus Anti-Cancer Society knew about specialist palliative care:

‘I started with general nursing in government hospital. But as soon as this hospice was started in 1976, I came here before the patients actually, after the builders went away. Well, I didn’t know anything about hospice by that time. Later on in 1991 I heard about hospice care and I went to London, for a Masters and then to St. Christopher’s, for the training course: ‘931’ ‘The Care of Dying and Care of Family.’

With renewed confidence in her skills, following this specialist training, Neophyta describes how she single-handedly and with great dedication started extending services beyond the in-patient nursing home. From 1991 she started nursing patients in their own homes and through this work set up the first home care team from the hospice, providing care in the Nicosia area. She went on to set up further teams in four other districts around the island. She is now Matron of the 18 bed in-patient unit at the hospice, and over the last ten years has promoted the development of psycho-social and day care services.

Dr Sophia Pantekhi, - *Medical Director: Arodaphnousa Hospice, Nicosia*: Interviewed by Amanda Bingley, 2 February 2005 – duration of interview: 37 minutes

Sophia Pantekhi speaks of how she was invited to start working as Medical Director in the Arodaphnousa Hospice. In 1998, after having completed her specialty in internal medicine, Sophia applied for a scholarship offered by the Cyprus Anti-Cancer Society to do a full time Masters in Palliative Medicine at Glasgow University, UK. At the instigation of oncologists Dr Helen Soteriou and Dr Adamas Adamou, the Society was seeking a specialist, full-time Medical Director at the in-patient Arodaphnousa Hospice. Having completed her Master's in 1999, Sophia returned to take up the position of Medical Director. She has encouraged a number of important initiatives at the hospice, including the training of a second doctor, Eleni Karatzia, who is completing a Master's degree from Kings' College, London, and began work at the hospice in 2003. With the help of other staff, Sophia has overseen the continuing development of psycho-social services, including art and music therapy; new support services for staff; and improvements to the home-care service so patients can have more options to transfer back to their own home if they wish. Sophia has worked hard to develop training for health professionals at student, post graduate and professional level. She is keen to work towards an integrated palliative care service available within government hospitals and to develop services for all patients at the end of life, regardless of their illness.

Maria-Christina Tchopourian - *Psychologist: Cyprus Anti-Cancer Society, Nicosia*: Interviewed by Amanda Bingley, 10 March 2005 – duration of interview: 35 minutes

Maria-Christina Tchopourian speaks of how she came to be involved in palliative care:

'I studied psychology, and then when I did my Master's I did 'thanatological' counselling, specialising in death related issues and people with chronic diseases; cancer, AIDS, any disease that's considered chronic. So that was my early interest. At the beginning I was more interested in bereavement and death, but gradually I realized that palliative care could be implemented and I could help people not only at the end of their life but throughout the course of the disease. So I decided that this was what I really wanted to do.'⁴⁰

She applied for a job as with the Cyprus Anti-Cancer Society, and in 1999 was employed full time as the Society's first psychologist. She now works with one other full time and 5 part time psychologists and 3 full time social workers providing psychosocial support for patients at home, in the hospice and in the oncology centres.

Jane Kakas - *Clinical Nurse Specialist, Home care service, The Cyprus Association of Cancer Patients and Friends (PASYKAF)*: Interviewed by Amanda Bingley, 8 April 2005 – duration of interview: 75 minutes

Jane Kakas talks about becoming interested in palliative care from her early nursing days:

‘When I worked as a nurse, as a surgical ward sister in the UK, we used to get a lot of referrals from GPs that were patients who were perhaps end stage, into our ward, and I got interested there in pain management and care of the dying. Then when I went to live in Cyprus, I worked in a private hospital where there was little knowledge of pain management. I felt very distressed and frustrated and left as I had an opportunity to go to the UK for a short period. I looked for a relevant course which would benefit my work in Cyprus and luckily got a place on the Care of the Dying 931, the ENB course and I did that at Epsom, at Princess Alice Hospice at Esher. And it was just the nicest six-week time I’ve had, it was so enjoyable and I learned so much. When I came back to Cyprus I was introduced to the current president of our Association – the Cyprus Association of Cancer Patients and Friends – and she said, “let’s meet and see what we can do, we want to start home care”. So in 1992 I went to this Association, had an office - I didn’t really know what to do with it, I didn’t know where to start - but I started to do home care in Nicosia. In 1995, I did the two year, distance learning diploma in pain management at the University of Wales, College of Medicine, in Cardiff. I feel quite passionate about pain and the concept of suffering. I have done my best to share any knowledge with my colleagues and they are all excellent at pain and symptom control, so it was well worth it.⁴¹

After quite a few years in home care, Jane helped organise the use of a wider range of opioids. She is currently working towards developing national procedure and policy for palliative care.

PUBLIC HEALTH CONTEXT

Population

Cyprus’s population of 775,927 is made up of the following ethnic groups: Greek 77%, Turkish 18%, other 5%.

Religious groups include: Greek Orthodox 78%, Muslim 18%, Maronite, Armenian Apostolic, and other 4%⁴²(Statistics from 2001).

Epidemiology

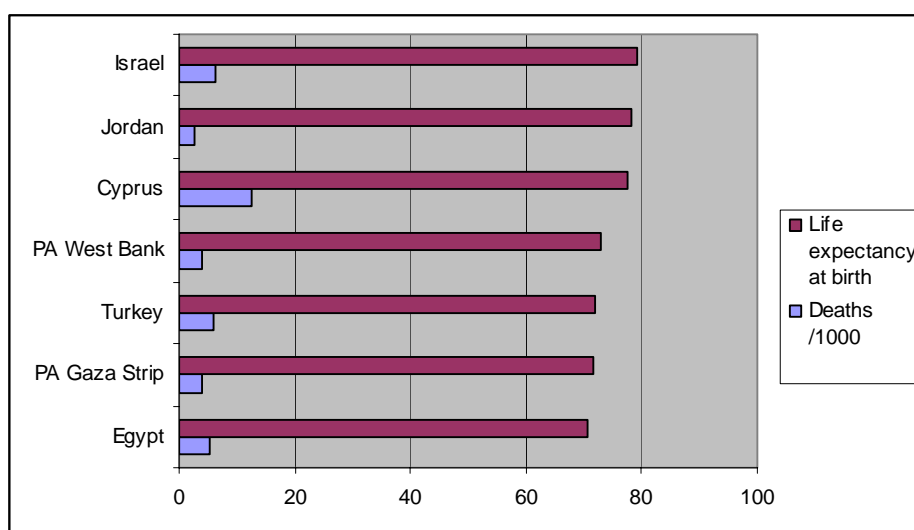
In Cyprus the WHO World Health Report (2003) indicates an adult mortality⁴³ rate per 1000 population of 102 for males and 48 for females (crude death rate 12.66/1000 and life expectancy at birth (total population) 77.46 years)⁴⁴ (see Table 6).

Life expectancy for males is 75.5; for females 79.1. Healthy life expectancy is 66.7 for males; 68.5 for females.⁴⁵

There are an estimated 1,997 new cases of cancer and 1,263 cancer deaths each year in Cyprus.⁴⁶ The most common cancer in women is breast cancer, and in men lung cancer.⁴⁷

There is a low incidence of HIV/AIDS in Cyprus. As of May 2003, the rate was estimated at < 0.1% incidence in the population. Cyprus has reported no HIV/AIDS deaths.

Table 6: Country death rates and life expectancy at birth (total population)*



**estimate 2004*

In 2004 UNAIDS reports:⁴⁸

“Since the start of the epidemic and as of May 2003, 400 persons have been diagnosed with HIV. Annual incidence of new HIV cases has been relatively low and stable, with small peaks in 1994 and 1999. Recent increases are thought to be related to cases in foreigners and Cypriots returning from abroad seeking treatment.

Of 330 HIV cases reported between 1986 and the end of June 2000, 140 (42%) were among foreigners. The majority of these were tested in order to obtain residency, work or study permits and left the country immediately after diagnosis.

Among 205 Cypriot HIV cases reported between 1986 and the end of June 2000, 177 were men (86%) and 28 women (14%). Of these, the majority of cases were homo/bi-sexual (45%) or heterosexual (44%). A further 4% were infected through blood and blood products and 2% through injection drug use. 80% of cases were aged 20-40 years with a mean age at diagnosis of 33.3 years (31.8 years for HIV and 36.5 years for AIDS).

In 1999 and 2000 HIV prevalence rates of 0.4% and 0.8% were reported among clients of voluntary counselling and testing.

Data reported from drug treatment centres indicate that 2.7% of drug users presenting for treatment in 2001 were HIV positive.⁴⁹

Health care system

In 2001, Cyprus’s total per capita expenditure on health care (was Intl \$941 (8.1% of GDP)).⁵⁰ Among the six MECC countries of Middle East, this figure falls within a spending range of Intl \$1839 in Israel (8.7 % of GDP) and Intl \$153 in Egypt (3.9 % of GDP). There are no figures available for the Palestinian Authority. At 3.9 % the smallest spending as a percentage of GDP is in Egypt (Tables 7 and 8).

There is no primary medical care system or community nursing service in Cyprus. There are plans to develop policy and procedures for registered nurses in the community, and there is a new community nurse training in place. In the last year a pilot study has been set up in a small area of Nicosia, with 2 nurses working in the community. Jane Kakas at PASYKAF has been asked to jointly help write the policies and procedures with the School of Nursing in Nicosia.⁵¹

Tables 7 and 8 Total health expenditure (Intl \$) per capita and as a percentage of GDP: Six MECC countries of the Middle East, 2003

Table 7 Health expenditure (Intl \$) per capita: MECC countries		Table 8 Health expenditure (Intl \$) as a percentage of GDP: MECC countries	
Country	Per capita	Country	% GDP
Israel	1839	Israel	8.7
Cyprus	941	Cyprus	8.1
Jordan	412	Jordan	9.5
Turkey	294	Turkey	5
Egypt	153	Egypt	3.9
Palestinian Authority	No figures*	Palestinian Authority	2.4*

Source WHO World Health Report 2003 *Source Palestinian Central Bureau Statistics*

Health care services are provided to all Cypriot residents via government funded hospitals in the Greek Cypriot south of the island. Medical cards entitling eligible residents to free or reduced payment services are issued from the Ministry of Health. Residents not eligible for a Medical Card pay for all treatments according to a scale of charges. Private, sector primary and hospital health care is available throughout the south. Turkish Cypriot patients with cancer can access free services provided by the NGOs, but these care services can only work in the south. Turkish Cypriots in the north have access to government health provision as on the Turkish mainland, but this does not currently include palliative care services.

The WHO overall health system performance score places Cyprus 24/191 countries. This composite measure of overall health system attainment⁵² is based on a country's goals relating to health, responsiveness, and fairness in financing. The measure varies widely across countries and is highly correlated with general levels of human development as captured in the human development index.

Political economy

A former British colony, Cyprus gained independence in 1960 as the UN recognised Republic of Cyprus. However, in 1963 following disagreements in the Greek Cypriot majority/Turkish Cypriot minority power sharing government there was an outbreak of communal strife, and Turkish Cypriots withdrew from the power sharing government. The situation intensified with ongoing conflicts between the Greek Cypriot and the Turkish Cypriot communities. In July 1974 a Greek junta-supported coup attempted to annex Cyprus to Greece, forcing President Makarios to flee. Turkey responded by invading Cyprus, giving Turkish Cypriots de facto control in the north, forcing partition of south and north into two distinct communities (Greek and Turkish). The UN was asked to intervene and peacekeeping forces established a UN buffer zone known as the 'Green Line', this separates the two ethnic communities. The Greek Cypriots in the south continue to maintain the only internationally recognized government: the 'Republic of Cyprus'. In 1983 Turkish Cypriots in the north declared independence and the formation of a "Turkish Republic of Northern Cyprus" recognized only by Turkey. The Greek Cypriot-controlled Republic of Cyprus joined the EU on 1 May 2004. Now every Cypriot carrying a Cyprus passport has the status of a European citizen. However, there are no direct trade and economic links between Greek or Turkish Cyprus and the latest talks between two communities, brokered by the UN, failed to agree on a unity plan. Since 2003 greater access has been agreed between the two areas.⁵³

GDP of Cyprus⁵⁴ per capita is Intl \$11,588. This falls within the range of \$21,223 (Israel) and \$600 (Palestinian Authority Gaza Strip) in the 6 MECC countries of the Middle East (Table 9).

Table 9: GDP per capita (Intl \$): 6 MECC countries of the Middle East, 2001

Country	GDP per capita (Int \$)
Israel	21,223
Cyprus	11,588
Turkey	5,830
Jordan	4,348
Egypt	3,901
Palestinian Authority West Bank*	**800
Palestinian Authority Gaza Strip*	600

*Source WHO (2001) *CIA World Factbook (2003est.)**(2002est.)*

The economy of the Greek Cypriot south is considerably more prosperous than the Turkish Cypriot north. However, the Greek Cypriot south is heavily dependent on tourism, and has been at times highly vulnerable to political instability in the region and fluctuations in economic conditions in Western Europe. In 2003 a comparison of the economies of the two areas of the island showed Greek Cypriot agriculture at 4.1%; industry 20.3%; services (government and tourism) 75.6%. In contrast the north was found to be more dependent on agriculture at 10.6%; industry 20.5%; services (mainly in government) 68.9%. The Turkish Cypriot economy has roughly one-third of the per capita GDP of the south, and because it is recognized only by Turkey, has had much difficulty arranging foreign financing and investment. To compensate for the economy's weakness, Turkey provides grants and loans to support economic development. Events throughout the island remain highly influenced by continuing negotiations on uniting Cyprus.⁵⁵

ETHICAL ISSUES

Both Greek and Turkish Cypriot communities, have a strong tradition of family support. When a relative falls ill the family will care for them and has, in the past, always tended to protect their relative from bad news. Until the 1990s, the issue of whether or not a patient knew their diagnosis and prognosis presented difficult ethical dilemmas for those involved in palliative care. However, partly as a result of improvement in cancer survival rates, which reduces the fear of cancer and partly because of more support for the patient and their families there has been a significant shift in attitudes; patients and their families are more willing to speak openly about their illness. As Neophyta Kouppi describes:

‘There are families actually, they need to protect the patient, and they visit the oncologist before and they say “please don’t tell my father his diagnosis, tell everything to me.” You know they want to protect the patient, so they stop the doctor giving information. But if I go back and think about the time we started, till now there are big changes, big steps. Now more patients know about their illness and they know their prognosis and they do things before they die, and they speak more openly.’⁵⁶

Maria-Christina Tchopourian agrees that there have been great changes since 1999 when she started work at the hospice:

‘I’ve seen a change in the way patients speak with their families about this issue. Before it was much more difficult, there was more of an act around this issue.

Now I think people are more honest. I think a lot of it has to do with our doctors changing, and informing the patients about their condition, instead of hiding information like they used to. On the other hand, the patients are more ready now to talk about these issues. The families are not always so ready, and at times we work with the families to prepare them to talk with the patient. Ten or 12 years ago, you would rarely hear the word cancer being mentioned, it was always referred to with other names: that's changing radically. Part of the reason for that is that the doctors are changing; another big part is all the patients that are surviving cancer. Because Cyprus is a small community, these things easily made known: that this person had cancer but is okay now, so people are less afraid.'

Maria-Christina Tchopourian identifies the biggest ethical problem she faces as a professional is *how much* information a patient has: As she explains:

'The biggest problem a psychologist faces is when we know more information than the patient, because we really ask the patient to be honest and we are expected to be honest. It really puts us in a difficult position to know more about their illness than they know because they often ask. It's not a psychologist's job to inform a patient about their illness or prognosis, but the ethical issue lies in the fact that we work to develop a trusting relationship and it feels unethical to know and act as if we don't know. Encouraging a more honest relationship between the doctors and patients might solve some of the problem. But, still I think there might be points where the doctor is reluctant to reveal to the patient a poor prognosis, for example. Yet they would openly share it with the multi-disciplinary team. Other members of the team might face the same difficulty, but a trusting relationship might not be so crucial for their job, as it is for a therapeutic relationship between psychologist and patient. A psychologist is expected to really be there.'⁵⁷

The different ways people relate to spiritual attitudes, seem to have influenced and been influenced by more open discussions about death and dying. As Barbara Pitsillides affirms there is a great diversity in beliefs and values of patients and their families.⁵⁸ Neophyta Kouppi comments:

'We have a priest from the Greek Orthodox church in the hospice. For the other people who come here, like Turkish Cypriots or people from Sri Lanka, Russia or other religions, we always encourage them to bring their own spiritual representative own religion if they want to talk, or to have any kind of service, and we try to give them a single room so they can have their privacy. I think people speak more openly now; even if they don't believe in any god, there is something more, life after death. They are more open, and they talk more about their family problems, like for example, if they have a child at home which is sick and probably the mother is anxious who is going to take care after her death, or if they feel angry with somebody from the family, then they talk more openly. So people from our multi-disciplinary team can help. We can bring in family members and we can help them find solutions for their anxiety.'⁵⁹

FURTHER READING

<http://www.who.int/cancer/palliative/en/>

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¹ Report of the United Nations Development Programme 2004 (HDI 2002). Launched by the United Nations in 1990, the Human Development Index measures a country's achievements in three aspects of human development: longevity, knowledge, and a decent standard of living. It was created to re-emphasize that people and their lives should be the ultimate criteria for assessing the development of a country, not economic growth. Current values range from 0.956 (Norway, 1/177 countries) to 0.273 (Sierra Leone, 177/177 countries). Countries fall into one of three groups: countries 1-55=high development; 56-141=medium development; 142-177=low development. See: <http://hdr.undp.org/statistics/data/indic>

² Throughout this report, in order to avoid unintended misunderstandings, we have used the definitions and nomenclature used by the United Nations to describe the two communities of the Greek Cypriots in the south and the Turkish Cypriots in the north (also referred to in Reports by the Secretary General as the Greek Cypriot side and the Turkish Cypriot side). We may also refer simply to north and south. For details about the history of conflict and the ongoing negotiations towards a peaceful resolution between the Greek Cypriots in the south of the island and Turkish Cypriots in the north see United Nations Peacekeeping Mission in Cyprus UNFICYP website <http://www.un.org/Depts/dpko/missions/unficypr/index.html>

³ IOELC interview: Sophia Pantekhi - 2 February 2005

⁴ IOELC interview: Neophyta Kouppi – 3 March 2005

⁵ Information from Cyprus Anti-Cancer Society <http://www.anticancersociety.org.cy> – as of 10 June 2005

⁶ The terms ‘supportive care’ and ‘palliative care’ (or palliation) are used to denote different approaches to stages of treatment and illness, and the intention of care. There are a number of definitions in current circulation and some literatures use the terms interchangeably. We are following definitions of the care, generally considered appropriate to different stages of illness, broadly in accordance with the European Society of Medical Oncology (ESMO) where supportive care = all care at all stages of illness. Palliative care = when no cure possible. End of life care = when death is imminent. <http://www.esmo.org/>

⁷ Malas, S. (2003) From Cyprus, *Palliative Medicine* 17, 150 (Dr Simon Malas is a Specialist in Oncology and Palliative Medicine, Department of Oncology, Nicosia General Hospital)

⁸ Costello, J. and Christoforou, C. (2001) Palliative care in a Mediterranean culture: a review of services in the Republic of Cyprus, *International Journal of Palliative Nursing* 7:6, 286-289

⁹ Bank of Cyprus Oncology Centre <http://www.bococ.org.cy/english-pdf/english.pdf>

¹⁰ IOELC interview: Neophyta Kouppi – 3 March 2005

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- ¹¹ IOELC interview: Jane Kakas - 8 April 2005
- ¹² IOELC interview: Raziye Kocaismail – 3 August 2005
- ¹³ Information about the Kemal Saracoglu Anticancer and Anti-leukaemia Association
<http://www.hri.org/news/cyprus/tcpr/2003/03-08-26.tcpr.html>
- ¹⁴ Amounts given in local currency. Conversion rate into Intl \$ at June 2005: CY£ 1 = \$2.09
- ¹⁵ IOELC interview: Jane Kakas - 8 April 2005
- ¹⁶ The Cyprus Anti-Cancer Society budget information for 2004
<http://www.anticancersociety.org.cy/cgi-bin/banner.cgi?url=http://www.anticancersociety.org.cy/>
- ¹⁷ See UNFICYP – Cyprus background
<http://www.un.org/Depts/dpko/missions/unficyp/background.html>
- ¹⁸ Pitsillades, N. (1995) Palliative care in Cyprus, *Hospice Bulletin*, December.
- ¹⁹ IOELC interview: Sophia Pantekhi - 2 February 2005
- ²⁰ Ministry of Health, Cyprus: Medical Card General Regulations and Application for a Medical Card as of 10 June 2005
http://www.moh.gov.cy/moh/moh.nsf/medcard_en/medcard_en?OpenDocument
- ²¹ International Narcotics Control Board (2004) *Narcotic Drugs: estimated world requirements for 2004. Statistics for 2002*. New York: United Nations, 2004.
International Narcotics Control Board (2005) *Report of the International Narcotics Control Board 2004*, United Nations: New York
http://www.incb.org/incb/en/annual_report_2004.html
- ²² Selva, C. (1997) International control of opioids for medical use *European Journal of Palliative Care* 4(6), 194-198
- ²³ ‘The term *defined daily doses for statistical purposes* (S-DDD) replaces the term *defined daily doses* previously used by the Board. The S-DDDs are technical units of measurement for the purposes of statistical analysis and are not recommended prescription doses. Certain narcotic drugs may be used in certain countries for different treatments or in accordance with different medical practices, and therefore a different daily dose could be more appropriate.’ International Narcotics Control Board. *Narcotic Drugs: estimated world requirements for 2004. Statistics for 2002*.
- ²⁴ The Middle East Cancer Consortium (MECC) was established in 1996 with the aim of setting up population-based cancer registries for member countries in order to monitor cancer incidence, mortality and epidemiology, promote preventative health policy and encourage research and educational links. (Silbermann, M. (2001) Perspectives for cancer epidemiology research in the Middle East *Gastrointestinal Oncology*, 4(2-3), 181-183). The member countries as of July 2005 are Cyprus, Egypt, Israel, Jordan, Palestinian Authority and Turkey. (Freedman, L., Al-Kayed, S., Bassam Qasem, M., Barchana, M., Boyiadis, M., El-Najjar, K., Samy Ibrahim, A., Razzaq Salhab, A., Young, J.L., Roffers, S., Kahan, E., Harford, J., Silbermann, M. (2001) Cancer Registration in the Middle East *Epidemiology* 12:1, 131-133. <http://mecc.cancer.gov/registry.html>

Cyprus joined MECC in May 1996; however since 1990 the Ministry of Health have run the Cyprus Cancer Registry (CyCR).

This country report was commissioned by MECC through the National Cancer Institute, Bethesda, following the MECC conference in Larnaca, 2 – 3 February 2004

²⁵ IOELC interview: Sophia Pantekhi - 2 February 2005

²⁶ Kakas, J. and Pitsillides, B., Managing cancer pain at home: the experience of Cyprus http://www.whocancerpain.wisc.edu/eng/10_2/cyprus.html (accessed 29/06/05)

²⁷ IOELC interview: Jane Kakas - 8 April 2005

²⁸ Andronikou, A.(1998) The Cyprus Anti-Cancer Society, *EAPC Newsletter* No. 33, December.

²⁹ The Cyprus Association of Cancer Patients and Friends information as of 10 June 2005 <http://www.cancercare.org.cy/EN/>

³⁰ Personal communication Kate Kottam 10 March 2005

³¹ IOELC interview: Sophia Pantekhi - 2 February 2005

³² IOELC interview: Jane Kakas - 8 April 2005

³³ Discussion MECC conference, Larnaca, Cyprus 2-3 February 2004

³⁴ IOELC interview: Neophyta Kouppi – 3 March 2005

³⁵ IOELC interview: Neophyta Kouppi – 3 March 2005

³⁶ Pitsillides, B. and Pitsillides, A. (2004) A virtual multidisciplinary team for terminal care, *European Journal of Palliative Care* 11(5), 202-203 (aspects of this paper have been presented at the following conferences; ‘Cancer care: focus on cancer pain’ at Limassol 28-31 May 1997; 8th Congress EAPC at The Hague, Netherlands, April 2003; High Level Ministerial Conference: eHealth: ICT for Health at Brussels, 22-23 May 2003 (see also Pitsillides, A., Pitsillides, B., Samaras, G., et al. (2003) DITIS: a collaborative virtual medical team for home healthcare of cancer patients. In R.H. Istephanian, S. Laxminarayan, C.S.Pattichis (eds.) *M-Health: emerging mobile health systems*, London: Kluwer Academic/Plenum.)

³⁷ IOELC interview: Maria-Christina Tchopourian – 10 March 2005

³⁸ IOELC interview: Sophia Pantekhi - 2 February 2005

³⁹ IOELC interview: Neophyta Kouppi – 3 March 2005

⁴⁰ IOELC interview: Maria-Christina Tchopourian – 10 March 2005

⁴¹ IOELC interview: Jane Kakas - 8 April 2005

⁴² For details about the history of conflict and the ongoing negotiations towards a peaceful resolution between the Greek Cypriots in the south of the island and Turkish Cypriots in the north see United Nations Peacekeeping Mission in Cyprus UNFICYP website

<http://www.un.org/Depts/dpko/missions/unficyp/index.html> Also see World Factbook:
<http://www.cia.gov/cia/publications/factbook/geos/ug.html>

⁴³ This refers to adult mortality risk, which is defined as the probability of dying between 15 and 59 years.

⁴⁴ See World Factbook <http://www.cia.gov/cia/publications/factbook/geos/ug.html>

⁴⁵ See: WHO statistics for Cyprus at: <http://www.who.int/countries/en/>

⁴⁶ Source: cited from Cancer Research UK, Information Resource Centre ‘Cancer in the EU: incidence and mortality in the European Union’ based on estimates in 2000. Accessed 29th June 2005 <http://info.cancerresearchuk.org/cancerstats/cancerineu/incidenceandmortality/>

⁴⁷ Boyle, P. and Ferlay, J. (2005) Cancer incidence and mortality in Europe, 2004 *Annals of Oncology* 16: 481-488

⁴⁸ Source cited from UNAIDS 2004 Update on Cyprus at: <http://www.unaids.org>

⁴⁹ Source: EMCDDA 2003 <http://candidates.emcdda.eu.int/en/page70-en.html>

⁵⁰ Total health expenditure per capita is the per capita amount of the sum of Public Health Expenditure (PHE) and Private Expenditure on Health (PvtHE). The international dollar is a common currency unit that takes into account differences in the relative purchasing power of various currencies. Figures expressed in international dollars are calculated using purchasing power parities (PPP), which are rates of currency conversion constructed to account for differences in price level between countries.

<http://www3.who.int/whosis/country/>

⁵¹ IOELC interview: Jane Kakas - 8 April 2005

⁵² Tandon A, Murray CLJ, Lauer JA, Evans DB. Measuring overall health system performance for 191 Countries, *GPE Discussion Paper Series*: No 30; WHO

⁵³ See World Factbook: <http://www.cia.gov/cia/publications/factbook/geos/ug.html>

⁵⁴ See World Factbook: <http://www.cia.gov/cia/publications/factbook/geos/ug.html>

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