

Integrated primary care for mental health in the Thiruvananthapuram District, Kerala State

Case summary

Since 1999, Thiruvananthapuram District has been integrating mental health services into primary care. Trained medical officers diagnose and treat mental disorders as part of their general primary care functions. A multidisciplinary district mental health team provides outreach clinical services, including direct management of complex cases and in-service training and support of primary care workers. The free and ready availability of psychotropic medications in the clinics has enabled patients to receive treatment in their communities, thus greatly reducing expenses and time spent travelling to hospitals.

Starting in 2002, primary care centres began to assume responsibility for operating their mental health clinics with minimal support from the mental health team. Currently, mental health clinics are operating in 22 locations throughout the district. Services provided include diagnosis and treatment planning for newly-identified patients, review and follow-up for established patients, counselling by the clinical psychologist or psychiatrist, psychoeducation and referrals as needed.

1. National context

The Republic of India (see Table 2.17) is a democracy organized in a federal decentralized system of governance. Its population is multi-ethnic and the vast majority is Hindu (80.5%).¹ Hindi, spoken by 40% of the population, is the official language while English is a subsidiary official language and very commonly used, particularly in business and administration.² The adult literacy rate is still rather low for men (73%), and very low for women (48%), reflecting existing gender inequities.^{3,4}

Table 2.17 India: national context at a glance

Population: 1.1 billion (29% urban) ^a
Annual population growth rate: 1.7% ^a
Fertility rate: 2.9 per woman ^a
Adult literacy rate: 61% ^a
Gross national income per capita: Purchasing Power Parity International \$: 3460 ^a
Population living on less than US\$ 1 per day: 35% ^a
World Bank income group: low-income economy ^b
Human Development Index: 0.619; rank 128/177 countries ^c

Sources:

- ^a World Health Statistics 2007, World Health Organization (<http://www.who.int/whosis/whostat2007/en/index.html>, accessed 9 April 2008).
- ^b Country groups (<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20421402~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>, accessed 9 April 2008).
- ^c The Human Development Index (HDI) is an indicator, developed by the United Nations Development Programme, combining three dimensions of development: a long and healthy life, knowledge, and a decent standard of living. See Statistics of the Human Development report. United Nations Development Programme (<http://hdr.undp.org/en/statistics/>, accessed 9 April 2008).

India's low-income economy is today the fourth largest in the world in terms of Purchasing Power Parity and one of the world's fastest growing, with average growth rates of 8% over the past three years.⁵ The country is now challenged to make this growth more inclusive and sustained.⁶

Since its independence, India has reduced absolute poverty by more than half, dramatically improved literacy, and bettered health conditions.⁶ Its poverty level is declining slowly but unequally across states and in rural versus urban areas.⁴

2. Health context

Since India's independence in 1947, life expectancy has risen markedly (see Table 2.18), infant mortality has been halved, and 42% of children are now estimated to receive essential immunizations. And yet, critical health issues remain: infectious diseases continue to claim a large number of lives, infants continue to die needless deaths from diarrhoea and respiratory infections, and millions still do not have access to the most basic health care.⁷ Health inequalities exist across the country with noticeable inter-state differences in average per-capita spending on health.⁸ Leading causes of death in India reflect a mix of "old" and "new" public health challenges: heart disease, followed by lower respiratory infections, stroke, perinatal conditions, and COPD.⁹

Table 2.18 India: health context at a glance

Life expectancy at birth: 62 years for males/64 years for females
Total expenditure on health per capita (International \$, 2004): 91
Total expenditure on health as a percentage of GDP (2004): 5.0%

Source: World Health Statistics 2007, World Health Organization (<http://www.who.int/whosis/whostat2007/en/index.html>, accessed 9 April 2008).

India has a vast private health care infrastructure. Total government spending on health has remained near 1% of GDP; and of this nearly 70% of state spending on health care goes to urban areas, mostly to hospitals. The remaining 30% is provided for rural areas, where it is focused largely on family planning services.¹⁰ This has resulted in service gaps for the majority of the population. Many Indians pay privately for their health care, potentially putting them into debt. The 2008 National Budget (presented to parliament on 29 February 2008) increased health allocation by 15%, from 144 billion Indian Rupees (US\$ 3.5 billion) in the previous fiscal year to 165 billion Indian Rupees (US\$ 4.1 billion).¹¹

Mental health

National-level data on the prevalence of mental disorders are not available. However a meta-analysis of 13 epidemiological studies yielded an estimated prevalence rate of 5.8%. Organic psychosis (0.04%), alcohol/drug dependence (0.69%), schizophrenia (0.27%), affective disorders (1.23%), neurotic disorders (2.07%), mental retardation (0.69%) and epilepsy (0.44%) were common diagnoses.¹² Morbidity was associated with residence (urban), gender (females), age group (35–44 years), marital status (married/widowed/divorced), socioeconomic status (lower) and family type (nuclear). The Indian Government estimates that 1% to 2% (10 to 20 million) of the Indian population suffer from major mental disorders, and around 5% (50 million) suffer from minor mental disorders.¹³

Mental health services are provided mainly through psychiatric hospitals, psychiatric nursing homes, observation wards, day centres, inpatient treatment in general hospitals, ambulatory treatment facilities, and other facilities such as halfway homes. There are 37 government-run psychiatric hospitals in India, most of which are managed by state governments. These facilities have a total capacity of 18 000 inpatients; almost half of available beds are occupied by long-stay patients. The appalling state of India's psychiatric institutions has been documented by the National Human Rights Commission.¹⁴ In any event, mental health care is often out of reach for the roughly one third of the population who lives below the poverty line.

Three laws directly address mental health: the Narcotic Drugs and Psychotropic Substances Act, 1985; Mental Health Act, 1987; and the Persons with Disability Act, 1995. In addition, the National Health Policy of 2002 specifies the inclusion of mental health in general health services.

3. Primary care and integration of mental health

Responsibility for public health care in India lies with national and state governments. Health care is provided at a number of different levels. Rural dispensaries (4000 in total), health posts (871), subcentres (140 000 in total), and primary care centres (24 000 in total) exist at village and block (governance unit below district) levels to provide primary and preventive care. At a higher level of care, community health centres (3910 in total) typically provide health care for around 150 000 people. In addition, there are around 3000 rural hospitals. Municipal hospitals serve larger urban areas. All public services are complemented by private and nongovernmental services.¹⁵

Mental health

Two significant developments heralded the integration of mental health into primary care in India: the launch of the National Mental Health Programme in 1982, and the revision of

the National Health Policy, which specified the inclusion of mental health in general health services, in 2002. The National Mental Health Programme envisaged integration through the introduction of mental health services at four levels:

- primary care services at the village level;
- primary care centres;
- district hospitals;
- psychiatric units in medical colleges.

In 1982, the National Institute of Mental Health and Neuro Sciences, in collaboration with the director of medical services and district administration in the State of Karnataka, piloted mental health integration in the Bellary District of Karnataka.¹⁶ This model was adopted subsequently by the government of India for nationwide integration of mental health services into primary care. The District Mental Health Programme, launched in 1995 as part of the National Mental Health Plan, has been extended to all districts in India as part of its 2007–2012 Plan. The model is seen as the main mechanism for integrating mental health into primary care, although in reality integration has not occurred in many of the districts around the country.

4. Best practice

Local context

This best practice is based in the State of Kerala's Thiruvananthapuram District. Kerala is situated in the south-western corner of the country, and is a popular tourist destination. It has an area of 38 863 square kilometres, and is the most densely populated state in the country. Kerala's literacy rate is 91%, well above the national average. Agriculture dominates the economy. The state's per capita GDP of 11 819 Indian Rupees is significantly higher than the national average, although lagging behind many other Indian states.¹⁷ Its Human Development Index and standard of living statistics are the nation's best. This apparent paradox – high human development and low economic development – is often dubbed the *Kerala phenomenon* or the *Kerala model* of development, and arises mainly from Kerala's strong service sector.¹⁸

Kerala's health indicators, displayed in Table 2.19, are among the best in the country. The Director of Health Services heads all health and family welfare programmes in the state. At the district level, the District Medical Officer directs all health and family welfare activities. The District Medical Officers are assisted by Deputies and other technical and ministerial staff.¹⁹

Table 2.19 India and Kerala State: health indicators

	Kerala	India
Life expectancy	70.93 years	64.9 years
Infant mortality rate	5.6/1000 live births	72/1000 live births
Maternal mortality rate	0.8/1000 live births	4.37/1000 live births
Perinatal mortality rate	18.9/1000 live births	47.5/1000 live births
Neonatal mortality rate	11.3/1000 live births	51.1/1000 live births
Death rate children	4.3/1000 live births	6.5/1000 live births

Source: Status report 2004–2005. Thiruvananthapuram, District Mental Health Programme.

The health infrastructure in Kerala is comprised of *anganwadis*^a, subcentres (5094 total), primary care centres (944 total), community health centres (105 total), Taluk hospitals (43 total), district hospitals (11 total), medical college hospitals (5 total), mental health centres (3 total), and general hospitals (3 total).

At district level and below, elected representative bodies called *Panchayaths* exist as part of three-tier decentralized governance. Thus there are district Panchayaths, block Panchayaths and village Panchayaths. Primary care centres come under the governance of village Panchayaths; whereas community health centres and Taluk hospitals come under the governance of block Panchayaths.

The catchment areas are roughly 7 square kilometres for a subcentre, and roughly 38 square kilometres for a primary care centre.²⁰

Additional details are provided in Table 2.20.

Institution	Head health worker	Coverage	Role and facilities	Other staff
Anganwadis	Anganwadi worker	Minimum of 1 for 1000 population	Nutrition and care of preschool children and mothers	None
Subcentres	Junior public health nurse (JPHN) or junior health inspector (JNI)	5000 population covering 4 to 5 villages	Disease prevention; information, education and communication; and curative care	Accredited social health assistants
Primary care centres	Medical officer	25 000 population covering about 20 villages	Outpatient care; disease prevention; information, education and communication; health education; and follow-up	JPHN/JNI, nurses, pharmacist assistants
Community health centres	Medical officer	230 000 population	Referral centre Inpatient and outpatient care; surgical facilities; radiology; laboratory; pharmacy services	2 to 3 doctors, nurses, pharmacist
Taluk hospital	Superintendent	350 000 to 400 000 population	Referral centre Inpatient and outpatient care; surgical facilities; radiology; laboratory; pharmacy services	5 to 8 doctors, nurses, pharmacist

According to available statistics from 2002, Kerala has the highest suicide rate in India (30.8 per year for every 100 000 people); much higher than the national rate of 11.2 per year for every 100 000 people, and the global rate of 14.5 per year for every 100 000 people.²¹

Kerala has three government-run psychiatric hospitals, with a total capacity of 1342 beds. Adding the state's psychiatric units in general and district hospitals, and the psychiatry departments of the government medical colleges, the state can accommodate 1717 patients with

^a *Anganwadi* is the Hindi term for courtyard play centre. These community-based government institutions are integrated into the government's Integrated Child Development Services. The Anganwadi centre also provides basic health care in villages – mostly related to maternal and child health. Anganwadis are part of the Indian public health system.

mental disorders at any given time. The state has 157 private psychiatrists and 85 government psychiatrists, which translates into less than one psychiatrist per 100 000 population.²²

In the Thiruvananthapuram District of Kerala, there is one psychiatric hospital with a total capacity of 507 beds. An additional 71 beds are located in government-run general and district hospital psychiatry units, and the psychiatry departments of government medical colleges.²³

Kerala's estimated 12-month prevalence of mental disorders is displayed in Table 2.21.²⁴

Table 2.21 Kerala State: 12-month prevalence of mental disorders

Prevalence of mental disorders 58/1000 population
Prevalence of severe mental disorders 10–20/1000 population
Neurosis and psychosomatic disorders 20–30/1000 population
Mental retardation 0–1% of children up to 6 years of age
Mental disorders in children 1–2% of children up to 6 years of age

Description of services offered

Mental health services are integrated with general primary care mainly in primary care centres, community health centres, and Taluk hospitals (which provide outpatient care).

People with mental disorders are identified and directed to these facilities by:

- *anganwadi* workers;
- primary care centre staff – junior public health nurses and accredited social health assistants;
- mental hospitals and private clinics;
- nongovernmental organizations and rehabilitation centres;
- community-based social workers and volunteers;
- *panchayath* members;
- district mental health programme team members;
- schoolteachers.

New referrals are seen by the medical officer/physician at the primary or community health centre. If medical officers have been trained as part of the District Mental Health Programme, they make a diagnosis and prescribe the next course of action, e.g. medication or referral. Alternatively, if medical officers have not been trained, or if the problem is beyond their level of expertise, they instruct the patient to return on the day when the district mental health team will be present next. People with mental disorders undergo the same procedures and wait in the same queues as other patients who are attending the centre for other reasons. On a normal work day, about 300 to 400 people are seen at a primary or community health centre, and among them roughly 10% have identified mental disorders.

On mental health clinic days, the district mental health team receives patients in a designated area of the primary or community health centre. They are separated from the centre's main activities, mainly to avoid crowds. New referrals queue, in order of arrival, together with follow-up patients. Returning patients bring their patient books, which contain relevant records

and medical information.^b The patient and (often) a family member or caregiver are seen by the psychiatrist in a designated room or, if not available, in a corner of a large hall with privacy from others. A diagnosis and prescription, where needed, are entered by the psychiatrist into the patient book and handed to the nurse, who then dispenses medication if indicated. The medications are usually brought to the facility by the team, and left behind for use between their mental health clinics. Normally, only trained medical officers prescribe psychotropic medicines and actively follow-up with patients between mental health clinics. Untrained medical officers limit themselves to prescribing medications that have already been selected by the team psychiatrist.

All new patients receive psychoeducation at their first visit, including information about their mental disorder, its origin, prevention, treatment, monitoring and management. This involves them in the process and motivates them to continue treatment.

The social worker meets those in need of counselling and follow-up services. The social worker conducts periodic group therapy sessions and arranges admission into rehabilitation centres and contacts with other government services. In certain cases, the social worker makes home visits to assess the family situation and assist with ensuring continuous treatment. If required, individual counselling is conducted by the clinical psychologist and psychiatrist.

Thus the services offered during mental health clinics are:

- diagnosis and treatment planning for newly-identified patients;
- review and follow-up for established patients;
- counselling by the clinical psychologist or psychiatrist;
- psychoeducation;
- referrals as needed.

The majority of patients are seen for depression, bipolar disorder, schizophrenia or epilepsy (see evaluation/outcomes).

Process of integration

The process of integrating mental health with general health in Thiruvananthapuram District started in earnest with the introduction of the District Mental Health Programme in two Kerala districts in 1999 and 2000. This was the result of a project proposal sent by the state to the national government.

A formal government order to initiate the District Mental Health Programme, dated 25 January 1999, was sent to the Thiruvananthapuram Mental Health Centre, which was designated as the “nodal centre” for implementation in the district. The government order also mandated the creation of a district mental health team to initiate and enable mental health services. Starting with the appointment of a psychiatrist as the first nodal officer or coordinator, the following team members were also appointed within one year:

^a Patient books are given by the district mental health programme team to people with disorders, who keep them in their custody and bring them to appointments. The books contain information about their diagnosis, treatment plan, and any medications or test results. They also include details such as the patient’s age, sex, referral source, and date of enrolment into the programme/treatment.

- one team psychiatrist – on secondment from the mental health centre;
- one clinical psychologist – on regular basis;
- one psychiatric social worker – on contract basis/secondment;
- one staff nurse – on secondment;
- one clerk/computer operator – on contract basis;
- one clinic attendant – on daily wages;
- one driver – on daily wages.

The Thiruvananthapuram Mental Health Centre initially identified eight locations within the district for integrated services, including four primary care centres, one community health centre, and three Taluk hospitals. These locations were selected to provide the widest possible coverage for the district, and because they had the required infrastructure. In addition, their health workers showed a willingness to treat people with mental disorders.

The government also created two committees to oversee implementation, namely the implementation committee (at the mental health centre, which was the nodal institution) and the monitoring committee (at the state level). In addition, psychiatrists and mental health professionals from the mental health centre and the district mental health programme convened a working group to discuss and review the programme.

In July 1999, the district mental health team (team psychiatrist, staff nurse, clinic attendant, and driver) started holding mental health clinics in these eight locations, once a fortnight, on fixed days. A selected subset of medications was purchased by the mental health centre and transported with the team to these facilities.

Within a year, 13 locations were being served. The frequency of clinics was reduced from fortnightly to monthly, to make the schedule more manageable for the district mental health team.

In 2002, a decision was made to reduce established mental health clinics' reliance on the district mental health team. Responsibility for these clinics was transferred gradually to the medical officers of the concerned centres. In due course, the team started providing outreach clinics in new centres, eventually totalling 25 outreach clinics including two jails. The team also began to provide consultation-liaison services to three nongovernmental organizations that provide rehabilitation services to people with mental disorders. Subsequently, three outreach clinics (the two jails and one other) were dropped during 2004 and 2005, because of reduced patient demand for services.

Currently, mental health clinics are operating in 22 locations: 11 primary care centres, 8 community health centres, and 3 Taluk hospitals. The district mental health team makes monthly visits to all clinics, including those for which services have been devolved to primary care workers, except two Taluk hospitals, which are staffed by psychiatrists.

The services provided are free-of-charge in most cases. However, local *panchayaths* manage the primary care and community health centres, and some collect nominal fees from all patients, including people with mental disorders.

Enhancing human resources through training and awareness

A number of training programmes were organized. A team comprised mainly of doctors from the mental health centre was designated to train 215 medical officers, 102 nurses and health workers, and 274 *anganwadi* workers.

State health workers are transferred to a new location every three years. As such, many trained health workers eventually were transferred from participating mental health clinics. Ongoing training of newly-arrived health workers was therefore essential, yet was inhibited by funding problems later in the programme (see finances/funds, below).

Doctors from the primary care centres, community health centres and Taluk hospitals were provided with 12 days of intensive training to prepare them for their new role. Topics included anatomy of the nervous system, identification and diagnosis of mental disorders, and evidence-based treatment options. Modern training methods were used, including sessions with actual and simulated patients using closed circuit TV. The trainers interviewed patients, and generated diagnoses and management plans as the trainees watched.

The nurse and health worker training lasted six days. Topics included mental health, organic disorders, epilepsy, mood disorders, communication and counselling, psychiatric nursing, psychiatric emergencies, legal psychiatry, rehabilitation, medication in the treatment of mental disorders, childhood and adolescent problems, and the national and district mental health programmes' objectives and strategies.

Anganwadi workers received 5 days of training, which covered mental health and mental disorders, as well as identification of mental disorders, and counselling skills.

Additional groups were trained selectively. Seventeen mass media officers from the directorate of health services and the district medical office were oriented to the district mental health programme and general mental health issues. Their training focused mainly on suicide, so that they could bring public attention and focus to this locally-important issue. Around 199 school-teachers underwent a 3-day training session on mental health issues, in which they were taught a simplified method for detecting mental disorders and behavioural problems in children and adolescents. A general orientation was also given to 200 police personnel and 26 jail wardens. In addition, the programme offered opportunities for 73 social work students and 60 psychology students to participate at various stages. While these students provided additional skills, they were also able to benefit from the practical training provided.

Record keeping/information

In addition to patient books, which were described previously, the psychiatrist keeps separate records of all patients seen during clinics. The mental health nurse maintains a register of the patients attending the clinics and the medicines dispersed, but leaves it at the primary or community health centre with its other medical records. The nurse also maintains the stock register of the medicines. Where a trained medical officer is available, the respective centre requests the necessary medicines, including psychotropic medicines, and sends the list to the District Medical Officer for approval.

The psychiatric social worker provides the details of counselling and group therapy in a monthly report. The clinical psychologist maintains his/her records in individual patient files. The district nodal officer convenes weekly meetings with his team and consolidates the data, which are then entered by the computer operator at the District Mental Health Programme's office.

Supply of psychotropic medicines

All health facilities (including primary care centres, community health centres, and Taluk hospitals) follow a standard procedure to obtain medicines. The head of the institution sends an annual request for medicines to the concerned District Medical Officer. The District Medical Officer forwards requests to the district medical stores. The superintendent of the district medical stores reviews the district's complete request and sends it to the state's central purchasing committee. The medicines are purchased by the central purchasing committee from approved pharmaceutical companies based on a system of tenders. Institutions are asked to collect their medicines from the district stores on a quarterly basis. The central purchasing committee has a standard list from which institutions select medicines and their quantities. The District Medical Officer convenes monthly meetings with institutional heads to review the availability of medicines.

Before the introduction of the district mental health programme, psychotropic medicines were not available in any of the primary care facilities. Obtaining psychotropic drugs through the standard procedure described above has therefore required special efforts from the district mental health team, especially the nodal officer.

When the mental health clinics were started, the response (i.e. number of people seeking treatment) was very good. But the general health workers and facility pharmacies were reluctant to request and stock psychotropic medicines, because there were no trained physicians or psychiatrists to make proper prescriptions. As a result, the district mental health team carried the medicines to and from the clinics, making them available free-of-charge to patients. This process worked well between 1999 and 2004, when the programme was funded fully by its initial grant. During this period, the nodal officer was permitted to directly obtain medicines from the central purchasing committee-listed pharmaceutical companies, without having to go through the entire standard procedure. This was a special provision, unavailable to other heads of health facilities. Additionally, the three nodal officers in the state's three district mental health programmes were invited to the monthly meetings convened by the District Medical Officer, and so they were able to review the stock of psychotropic medicines and ensure their availability at the centres. After 2004, the availability of funds for medicines became irregular. The team wanted to tap unused training funds for the purchase of medicines, but the nodal officer was required to make a special application to the central government. The permission came only after appeals to the state high court and lobbying with local members of parliament.

Over time, the district mental health team was able to convince the general health facilities to request psychotropic medicines as part of their standard requests for medicines. The district mental health team prepared lists of psychotropic medicines according to the requirement of each centre (where the mental health clinics were operational) and gave these to the heads of these facilities and the pharmacists to include in the overall list for the centre. If there was any interruption in the availability of medicines, the nodal officer borrowed them from the mental health centre, and they were replaced at a later date.

Currently, all 22 centres make direct requests for psychotropic medicines. Occasionally, supplies fall short and in these cases, the district mental health team helps by sending a request for additional medicines (signed by the nodal officer and the head of the mental health centre) to the District Medical Officer. This arrangement has been working well.

Finances/funds

Following approval of the District Mental Health Programme by the national government, funds were allocated for an initial period of five years. The operating budget had line items for health workers, as well as for medicines; equipment and vehicle maintenance; training; and information, education and communication activities. The purchase of the team's vehicle was important in that it allowed them to be mobile and active.

At the end of the initial funding period, the state government was not able to earmark funds to continue the programme, although this was planned and expected by the central government. The programme continued by using some of the original funds that were not yet spent, and with financial support from the mental health centre.

The biggest funding challenge faced by the programme was restrictions placed by the central government on the use of allocated funds, especially funds for training. According to the funding agreement, funds for training could be used only during the first three years of the programme. However, these funds were restricted during the third and fourth years due to a treasury ban by the state government. In the following years, when the funds became available again, in accordance with the terms of the funding agreement they could not be used. With the transfer of originally-trained health workers from their health centres, the problem became acute.

The nodal officer was a member of the planning and finance committee of the mental health centre, and was able to access funds to bridge funding gaps at critical moments. The Alliance for Mental Health Promotion established by the programme also secured funds from local politicians.

Now state funding for the programme has been secured for 2008 and 2009. This budget allocation is an important step in mitigating the programme's two main challenges: availability of funds and training of personnel.

Liaison and collaboration with nongovernmental organizations

The District Mental Health Programme formed self-help groups involving patients, families, caregivers, mental health professionals, and other interested parties.

The Alliance for Mental Health Promotion was established by the district mental health programme team with the support of the community itself. It has a central committee and 12 branch committees, which organize local programmes. The association advocates for the rights of people with mental disorders. In this capacity, it has helped nearly 100 people obtain disability pensions. The association also played a major role in securing successive extensions for the District Mental Health Programme after the initial funding period. Memoranda from local branches, demanding opening of mental health clinics in their areas, were helpful in this effort.

The programme also helped create community awareness on mental health issues. The district mental health team worked directly with three nongovernmental organizations and held

network meetings to inform the public about mental disorders and how to access help. Since the inception of the project, 66 full-day and 11 half-day awareness programmes have been held in the district, in which 7186 people have participated. Special programmes have also been organized for World Mental Health Day, World No Tobacco Day, and the International Day against Drug Abuse and Trafficking.

5. Evaluation/outcomes

The introduction of the District Mental Health Programme to Thiruvananthapuram District was well-received by the medical health centre. Following the first central government order to start the programme, the state's health secretary relaxed the lengthy and complicated procedures of fund allocations. The timely allotment of funds and the recruitment of committed and qualified staff into the district mental health team provided the programme with a good start. The placement of the programme under the health services department of the health ministry, instead of medical colleges (as is the case in other Indian states), further facilitated the integration of the programme into primary care and its overall success. The Kerala State Mental Health Authority (a statutory body that predated the District Mental Health Programme in the state; the Mental Health Authority was created as required by the Mental Health Act of 1987) and the Kerala State nodal officer for the District Mental Health Programme (who is also Secretary of the Mental Health Authority) actively encouraged the effective implementation of the District Mental Health Programme in the state.

The free and ready availability of psychotropic medications in the clinics has been one of the greatest advantages of the programme. It has enabled patients with mental disorders to receive effective and timely treatment in their neighbourhoods. As a result, expenses and time spent travelling to hospitals have been reduced greatly. Financial constraints in later years, especially during the temporary treasury ban by the state government, forced the programme to become dependent on the health facilities for supply of medicines. However, in retrospect this was advantageous, because medicines started to be routed almost entirely and effectively through the state government's procurement and supply system.

The rapid expansion from 8 to 13 and then to 25 separate clinic locations put pressure on the programme and necessitated the work to be assumed partly by the local teams. For instance, the Taluk hospital at Neyyatinkara decided to independently continue its mental health clinics using the services of a local psychiatrist, linking with the district mental health team only for supply of medicines.

Proactive actions taken by the nodal officers and mental health team since the beginning of the programme helped to weather challenges along the way. As described earlier, a ban on state treasury transactions during the 3rd and 4th years of the programme created a funding crisis for the programme. (Patients seen during this period decreased – as seen in the table below). However, a special request by the nodal officer resulted in the programme being exempted from treasury restrictions.

Importantly, the state's health services budget for 2008 to 2009 has allocated 2.5 million Indian Rupees (US\$ 61 600) to the district mental health programme, allowing the training of personnel to continue.

Services available

Many people with mental disorders have been identified and treated since the beginning of the programme. Table 2.22 displays the number of newly-registered patients per year at the 11 primary care centres, 8 community health centres, and 3 Taluk hospitals providing primary care-based mental health services in the district.

Table 2.22 Thiruvananthapuram District: number of newly-registered patients per year

Year	Total number of patients registered (new cases)
First year 1999–2000	1421
Second year 2000–2001	1659
Third year 2001–2002	1083
Fourth year 2002–2003	1122
Fifth year 2003–2004	1628
Sixth year 2004–2005	1631
Seventh year 2005–2006	1293
Eighth year 2006–2007	1246
Ninth year 2007 (April–November)	630
Total	11 713

Bipolar disorder, schizophrenia and depression were the most frequent mental disorders seen at the clinics between April 2005 and March 2006 (see Table 2.23).

Table 2.23 Thiruvananthapuram District: number of cases registered, April 2005–March 2006

Disorder	Number of cases registered
Depression	267
Bipolar disorder	300
Schizophrenia	271
Schizoaffective disorder	24
Seizures	112
Mental retardation	70
Delusion	18
Substance abuse	31
Generalized anxiety disorder	60
Adjustment disorder	10
Attention-deficit/hyperactivity disorder	6
Obsessive compulsive disorder	6
Dementia	32
Phobic disorder	11
Delirium	5
Somatophobic disorder	50
Panic disorder	4
Others	14
Total	1293

6. Conclusion

The District Mental Health Programme in Thiruvananthapuram was the result of a nationwide movement to make mental health care more accessible and available, and to integrate mental health into general health care. In 1999, a district mental health team was formed to provide outreach clinical services to a range of primary care and community health centres. Simultaneously, primary care workers were trained and community members were sensitized on mental health issues. Starting in 2002, some clinics began to assume responsibility for operating their mental health clinics without the direct support of the mental health team.

The programme's success was due largely to the ability of committed people to access start-up funding and find creative ways to continue funding after the initial implementation period. Success was also the result of dedication among health authorities and health workers to the model of integrated primary care for mental health. Over time, professionals at the mental health centre realized that the availability of mental health services within primary care reduced pressures on their facility, and lessened the treatment gap. The mental health centre thus continues to support primary care, for example with psychotropic medications and ongoing clinical support. It also serves as a referral centre for patients who require specialized assessment, or more intensive mental health care, including emergency and rehabilitation services.

Due to funding constraints, ongoing training of primary care practitioners has been difficult. Given state-mandated staff turnover at the primary care facilities, the district mental health programme team has at times been forced to reassume responsibilities that had been handed over to medical officers in primary care. However, the recently-secured funds from the state for 2008–2009 will help to ensure the sustainability of the programme.

Key lessons learnt

- Without an initial start-up grant from the national government, the programme would not have been implemented. Ongoing funding has been equally important, although sometimes challenging to secure.
- Senior leader support from state health authorities enabled the start-up team to quickly access allocated resources and rapidly develop a comprehensive service.
- Primary care for mental health must work with, rather than against, existing mental health facilities – including inpatient facilities. The mental health centre was an ally of the primary care programme and benefited from the newly-integrated services through for example, fewer referrals.
- The simultaneous increase in public awareness and primary care capacity was pivotal. Community education reduced stigma and encouraged people to seek care. At the same time, primary care worker training improved detection and treatment within these settings.
- The district mental health team's training, referral and support services were crucial to the success of the programme.
- Lack of ongoing primary care worker training impeded progress and forced some clinical responsibilities back onto the mental health team. Recently-secured funding for the programme will help to overcome this barrier.
- The Alliance for Mental Health Promotion, a consumer organization, was helpful in advocating for mental health services, securing funding for the programme, and assisting its members to obtain disability grants.

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