



Sentiens Pty Ltd
ABN 41 105 158 183
36 Parliament Place
West Perth, WA 6005
Postal: PO BOX 842
West Perth, WA 6872
Phone: 9481 1950
Fax: 9481 1952

22 August, 2006

Committee Secretary
Standing Committee on Health & Ageing
House of Representatives
Parliament House Suite 1-110
PO Box 6021
CANBERRA ACT 2600

Dear Sir/Madam

I enclose a detailed proposal for health funding for a series of complex concepts that will assist in the delivery of health care. These concepts satisfy COAG requirements and also provide the infrastructure for delivery of chronic illness systems.

The fundamental problem is that whilst the public sector has easy ways to acquire these systems which they simply do on a licence basis and use case management services, in the private sector there are no such infrastructures funded. This funding position cripples the avenues of adequate delivery of chronic illness services for patients. The implementation of such systems in the private sector is difficult due to the complex system of payments and the current orientation of health funds.

Patients find themselves seeing specialists in the public sector, GPs in the private sector and private specialists and there is great difficulty in the potential transmission of information. We have endeavoured to provide ways for these communication problems to be solved and for patients to be informed about their illnesses, take control of their own illness management and be monitored on-line. These methods are now being applied across millions of people in the US and Germany and are evolving worldwide.

Essentially, there needs to be benefit structures for doctors to be able to consult on-line and Mr. Abbott has agreed to look into this area. There needs to be provision of an information technology infrastructure across the continuum of care that can be funded and there also needs to be funding for case management across the continuum of care for the private sector.

We have developed a series of proposals and concepts on how these services may be developed and funded in the private sector. We would be delighted to present these concepts and their place in health systems to you. We understand that it may be necessary to do so because of the complexity of the concepts and models.

Finally, the concepts are universal and we do not seek any special benefits for ourselves, however, we do believe that in a future of declining service providers, we need to address the necessary infrastructures to deal with patients more efficiently.

Yours faithfully

Dr. Dennis A Tannenbaum
EXECUTIVE CHAIRMAN

Encls. MBS Proposal, Health Fund Benefits Application for Benefits, Population Health Management, Internet facilitated chronic disease management systems

Medicare Benefits Schedule

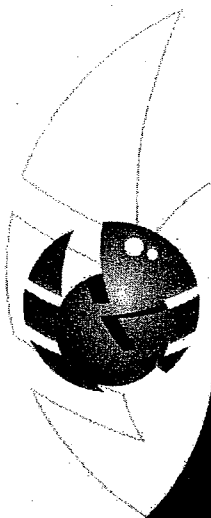
Discussion Paper

First Proposal

Version 2

Sentiens Pty Ltd
ABN 41 105 158 183
Level G Havelock Street
West Perth, 6005

PO Box 842
West Perth, 6872
T: +61 8 9481 1950
F: +61 8 9481 1952



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Executive Summary

Sentiens is an innovative Australian healthcare company that has developed a suite of products and clinical services to better enable the health system to manage chronic illnesses. Sentiens seeks two reimbursement models through the Medicare system.

- **Model 1:** The creation of MBS item numbers for the clinicians when using the system. More specifically, these proposed item numbers relate to:
 - The assessment process, particularly clinical interpretation and synthesis of the reports generated by our systems.
 - The clinical services that support and use the treatment infrastructure such as e-consultations and e-second opinions.

The second component of model 1 comprises the application of a population-based licensing arrangement (or pilot implementation benefits) for the disease management tools, HealthAssess (PsychAssess), RecoveryRoad, and the case management system. We have also provided an estimated per user compensation approach that is used to provide an anchor for a population licence.

- **Model 2:** This model comprises the application of item numbers for each of the elements of this paper. Consistent with Model 1, item numbers will apply to clinical assessment of reports generated by our systems and the clinical services that support and use the treatment infrastructure. This model also applies per user item numbers for our disease management tools. The estimated per user compensation approach that is used to provide an anchor for a population licence in Model 1 will simply be used to apply an MBS item number for the use of these systems.

These reimbursement models have been developed as a fair and reasonable compensation structure for each of the interventions discussed in this paper, and importantly, the models provide a starting point to open discussions with the view to arrive at payer models that best suit the Australian health care environment. Disease management systems have been applied successfully on the international stage but in each case, the key stakeholders in these systems differ to those in the Australian health environment, therefore rendering international compensation strategies redundant.

Sentiens Overview

Sentiens (formerly Infrapsych) is an Australian healthcare company that provides strategic health solutions and reform processes for a number of critical problems in health delivery. Sentiens' solutions offer an approach with an emphasis on evidence based high, effective treatment. Sentiens has concentrated on both acute and chronic treatment with an



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emphasis on assessment and management systems that provide targeted strategies for chronic disorder management and actively reduce the propensity of acute illness becoming chronic.

Critical to Sentiens' position as an innovator in mental health care is a multi-faceted and multi-disciplinary approach to the treatment of mental health problems. This comprises clinics, hospitals and disease management systems. Sentiens' Disease Management System is intrinsic in our assessment and treatment solutions for chronic mental health conditions. This disease management approach is well researched and is applied to manage multiple disorders in Medicine and Psychiatry. Disease management solutions are extensively used in the USA and are currently in various stages of implementation in Canada, continental Europe, the UK and Japan. Comprehensive assessment and treatment systems have now been trialled in Australia by Sentiens with Commonwealth and Western Australian State Health support.

This Medical Benefits Schedule discussion paper focuses on:

- Sentiens' population based e-health infrastructure that supports effective monitoring, outcomes and treatment over the continuum of care. This platform and has unique features to support patients, carers and primary practice and overcomes barriers to treatment that may arise due to location and/or patient mobility issues; and
- Associated clinical interventions to facilitate a cost effective evidence-based assessment and treatment triage of chronic mental health conditions.

Healthcare Reform Requirements

The current healthcare system is oriented towards the provision of high cost acute services. There is increasing recognition of the importance of the restructure of services to manage chronic disorders, which represent approximately 70-80% of health costs. The cost incurred by delivering a tertiary-centric care model is increasing and now contributes in the order of 9.3% of GDP. During 2001-2002, there were 6.4 million admissions to hospitals and, again, these rates are increasing. While disability rates have remained relatively constant, the burden of chronic conditions has increased. Alarming, Federal Health Minister, Tony Abbot has recently been quoted in the press as saying that health care costs are likely to eventually reach a staggering 15% of GDP. Further, the recommendations made by the Senate Select Committee on Mental Health emphasise the use of community-based solutions to better meet the populations' mental health needs (APH 2006).

The rate of diagnosed depression is rapidly rising, with the World Health Organisation (WHO) and other health stakeholders estimating that depression will become the second



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highest cause of disability. Moreover, evidence suggests that common disorders like Generalised Anxiety have contributed significantly to disability. That said, these disorders may be managed cost effectively with relative ease and success after accurate diagnosis and appropriate treatment. Even the very severe Bipolar Disorder has been shown to be responsive to sound treatment.

Many psychiatric disorders have a high rate of chronicity and treatment effectiveness over the longer term is of concern. Following current best practice treatment of acute conditions, the number of patients that continue to do well for a term of a year falls to just 10%.

The Health Problem

- **Increasing costs and ageing population**

Significant drivers for health costs include new technologies and medications, the infrastructure of tertiary care and its related salary drivers, and an ageing population. Chronic healthcare costs are growing with the increasing incidence of and prevalence of chronic illness, particularly depression, diabetes and asthma.

- **Demand for services exceeds supply**

There is excessive demand on primary practitioners and psychiatrists, which has led to increasing pressures to maintain health care delivery standards. As a consequence, undetected and untreated conditions are likely to lead to high levels of severity and eventually excessive demand on tertiary care facilities.

- **Inadequate consumer access to treatment** (particularly in rural and remote areas)

Rural and remote areas suffer from fewer services and when a disorder does occur, insufficient immediate care adds to the likelihood of an increase in condition severity and the requirement of more expensive care.

- **Inadequate support for primary care** (i.e. General Practitioners)

Primary practitioners are working under duress at an increasing rate due to numerical shortages of practitioners and increasing administrative burden. The efficiency of primary practice and its support structures are widely recognised as essential in the management of disorders.

- **High incidence and prevalence of chronic disorders** (incur 80% of healthcare costs)

In recent times health services have understood that the current emphasis on



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tertiary system and acute management will need to change to better manage the current and future burden of chronic health conditions.

- **Irregular patient outcome monitoring**

Health systems now acknowledge the importance of measuring service outputs as outcomes and there now exists a growing understanding for the need of a patient-centric approach to the management of chronic illness. Patient self monitoring is critical in the management of diabetes and is equally as effective in the management of all longer term and relapsing disorders.

- **Continuous Care**

Currently, the health system does not adequately manage illness across the continuum of care, that is, the provision of health care services and patient support between health primary, secondary and tertiary services.

Disease Management as a Solution

Disease management is a pro-active coordinated multi-disciplinary approach to the management of chronic illness within populations across the continuum of care. It involves a series of evidence-based cost-effective and quality processes for preventing, diagnosing, and treating patient populations at risk for a specific chronic illness or medical condition. There is evidence that disease management systems in the US have provided **cost-efficiencies of between 8-30%** in the management of chronic disease. These systems have rapidly grown in the US and Germany and are in stages of implementation in Canada, continental Europe, the UK and Japan. In the USA, the driver for implementation was the rapid growth in costs following the full implementation of managed care. In Germany, the basis appears to have been a Federal Government strategic decision to target chronic disorders. While in Australia, there is a growing push from the Commonwealth to address chronic illness. Of particular note are the new MBS items that provide incentive for GP led multi-disciplinary care and the recommendations of the Senate Select Committee on Mental Health, which emphasised the use of community-based centre of multi-disciplinary care teams.

Sentiens Solution to Chronic Disease Management

Sentiens' Disease Management System is intrinsic in this unique health delivery model and has been developed and applied in a clinical environment for the past 5 years. Sentiens has expended considerable resources to establish the appropriate models for delivery of best-of-class chronic illness management. The fundamental problem in the Australian context remains the complexity of our payer structures and the alignment of incentives.

Our efficient and clinically effective health model is characterised by:



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- Evidence based and cost effective treatment with a particular emphasis on targeting the underlying issues that lead to chronicity and more efficiently managing chronic disorders,
- A comprehensive e-healthcare disease management system that includes:
 - A robust case management system;
 - Ongoing proactive monitoring and outcomes management by dedicated case managers who use e-consultations, telephone and may clinically intervene. Tele-psychiatry is one further delivery system;
 - Comprehensive assessment programmes and processes HealthAssess (PsychAssess); and
 - Online patient monitoring, psycho-education, e-consultations and evidence-based therapy (RecoveryRoad)

Clinical application of Sentiens' Disease Management solutions has been well received in the academic community. Clinical application of RecoveryRoad (Depression) has been well researched in both the private and public sector and has a significant patient base of approximately 200 simultaneously active users. Moreover, internal and published analysis indicates that programme compliance has been approximately 80%, medication compliance by users has been excellent, approximately 95%, and the general level of consumer and health professional satisfaction with the treatment content and programme usability has been high. The PsychAssess trial recently commenced and boasts approximately 200 users. An accompanying survey has been completed by 143 people providing demographic and qualitative information. People generally gave positive feedback and indicated that PsychAssess met expectations. Some of the points highlighted were that PsychAssess went into depth, the results came back fast, it addressed relevant issues and it was useful.

The fundamental premise is that an e-health system on its own will not affect change. The underlying clinical systems will need to be modified and adapted to ensure efficient and effective health service delivery. This has been the international experience and is currently being reflected in trials of implementation in Australia.

Purpose of the Sentiens Solution

Each element of the Sentiens solution has a significant research basis and is designed to provide significant value to the wider health system. Our disease management services actively improve clinical care and increase service efficiency. The system also adds a significant patient and clinician utility by making services convenient, flexible and easily accessible.



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The Sentiens approach is carefully structured to:

- Provide tools that aid a clinician and/or care team to work more effectively;
- Provide the systems and processes to increase patient efficacy and capacity to self-manage their illness and contribute materially in the design and stewardship of their treatment plan;
- Facilitate support over the continuum of care;
- Link services and patient records into desktop, clinic and hospital software; and
- Offer a convenient service interface to patients and carers irrespective of location, traditional clinical service availability, or mobility.

MBS Support

MBS Item Numbers

There are two groups of MBS items that will be requested. Firstly, there are those that relate to the assessment process, particularly clinical interpretation and synthesis. The second group of rebates that are sought relate to the clinical services that support and use the treatment infrastructure. The Internet systems are not intended nor are likely to completely obviate the need for face to face or video interview but may be regarded as adjunctive, complementary, and may substitute, in part, some components of these services.

Patient Assessment and Triage Facilities and Processes

- Proposed Item CC1 – Clinical assessment of HealthAssess (PsychAssess) report

Patient Monitoring, Workflow Management and Treatment Planning

- Proposed Item CC2 – Clinician evaluation of RecoveryRoad patient monitoring and reports
- Proposed Item CC3 – Clinician e-consultations
- Proposed Item CC4 – Clinician e-second opinion

Sentiens has given considerable thought to the basis of remuneration for the e-consultation and e-second opinion. We see that a time-based remuneration system would be well aligned with MBS item numbers for standard face-to-face consultations but this system may potentially encourage inefficiencies by rewarding inefficient processing of the electronic advice. Therefore, we suggest a per page remuneration model, which would better capture the volume and complexity of the advice sought by patients.



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MBS Licences

In addition to per unit pricing structures (MBS items), Sentiens seeks licence-based remuneration, or pilot implementation benefits, for its suite of disease management tools. These tools comprise a comprehensive mental health assessment tool, HealthAssess (PsychAssess), a treatment and monitoring system, RecoveryRoad, and a case management system. This combination of MBS items and population-based licences is our Model 1 remuneration proposal.

Patient Assessment and Triage Facilities and Processes

- Proposed Item XX1 – Sentiens' HealthAssess (PsychAssess)
- Proposed Item XX2 – Short-form HealthAssess (PsychAssess)

Patient Monitoring, Workflow Management and Treatment Planning

- Proposed Item XX3 – Sentiens' RecoveryRoad care plan enrolment

Health System Solution

- Proposed Item XX4 – Sentiens' Case Management Facility

The basis for analysis when negotiating a population-based licensing arrangement for these systems is an estimated per user compensation approach.

If compensation Model 2 is favoured, this per-user analysis may also be used to apply an MBS Item number for the use of these systems.

Assessment Benefits

The assessment process comprises two intrinsically linked processes. Firstly, following an initial consultation with the primary practitioner, the patient is able to undertake a comprehensive online assessment. This assessment helps in the understanding of the level of severity of the disorder, related disability and also provides a significant understanding of risk. Moreover, this assessment facility also assists in appropriate allocation of resources and helps identify the possibility of simultaneously presenting disorders that are contributors to the likely complications (co-morbidity).

Triage processes are often laborious and complex and contribute to costs in many clinical settings. An Internet based service is convenient, rapid and scaleable. A clinician then conducts an analysis of this online assessment process and completes clinical patient assessment.



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Treatment Benefits

Following initial assessment, the patient may be prescribed components of Sentiens' Disease Management System to complement treatment in a clinical environment. We believe that this approach will generate desired clinical outcomes, exhibit time and cost efficiencies, and will facilitate convenient and flexible treatment for patients, carers and families.

An outline of the proposed benefits includes:

I. Convenient clinical consultations via the internet (e-consultations).

- Patients will be able to consult their clinicians securely over the web, in writing, with their information entered safely into their medical record.
- This facility enables patients to ask questions of their clinicians in a written form and request treatment advice at a convenient time.
- This facility is of equal convenience to those patients close to treatment delivery as well as patients who are located in rural and/or remote areas or have general mobility problems that would limit the chance of attending a consultation. (These systems are adjunctive to tele-consultations where benefits already apply).
- The efficient delivery of advice that poses little disruption to the patient's typical activities (travel time to and from an appointment, time in waiting at a clinic, and downtime due to the need for social interaction during the consultation).
- The clinician being able to respond to a query at their convenience and avoid untimely and potentially aggravating telephone calls that can upset both patients and clinicians. Our research to date shows both patient and clinician satisfaction with this flexible consultation format. Treatment recommendations are clearly documented and maintained in the patient medical record, and an auditable record of time allocated is made.
- Enhanced treatment efficacy will be enhanced by the provision of second opinions to support requesting clinicians by use of Sentiens' e-second opinion facility. This is a vitally important function that enables consultation and case discussion to occur between clinicians and the efficient and effective direction of patient workflow. The most important and clear application of this facility is in the area where a primary practitioner requests an e-second opinion from the specialist. This referral and the response is automatically



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part of the patient's medical record.

2. Sentiens Disease Management System – Following a comprehensive assessment, patients will be allocated to a disorder specific system that incorporates online treatment and monitoring facilities, monitoring only systems, and provides online patient support. This online support is provided by teleconferencing and/or email and is part of the Sentiens' Case Management System.
3. Sentiens Case Management System - Aims to ensure patient adherence and compliance to the prescribed treatment plan. Intrinsic to this process is the patient monitoring system. Patients are educated online by the systematic delivery of information, they are provided with treatment guidelines, and may undertake online treatment programmes. The case management system facilitates the monitoring of patients between visits to clinicians and allows the case manager to keep abreast of the patient's wellbeing and intervene early in the genesis of relapse.
4. Clinical treatment conducted by a clinician or multi-disciplinary treatment team in an array of clinical settings to complement the disease management systems.

Sentiens' Value Proposition

Sentiens' Disease Management System is designed to offer a cost-effective evidence-based alternative to the treatment of chronic mental illness. The benefits of the Sentiens system to key health stakeholders may be summarised as:

Patients

- Enhances empowerment and self-management capabilities.
- Provides treatment systems without the necessity of attending a health facility.
- Provides treatment with minimal disruption to a patient's lifestyle and commitments.

Clinicians

- Reduces assessment and screening time, thereby allowing more time allocated to specific diagnosis and treatment issues.
- Provides ongoing reports on patient wellbeing throughout the treatment plan.
- Facilitates better informed patients that may actively engage with their clinician.
- Delivers case management and comprehensive health records support.
- Provides well articulated care plans.



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- The electronic medium facilitates efficient evidence-based assessment, triage and treatment plans to any location, thereby improving services to currently undersupplied rural and remote areas.

Government

- Provides cost benefits by reducing frequency of use of tertiary facilities.
- The treatment needs of patients with chronic illnesses are more effectively addressed, which leads to reduced service demand and disability and enables longer term savings.
- Reduced risk of the development of co-morbid chronic diseases.
- This system provides efficient evidence-based assessment, triage and treatment solutions to currently under-serviced remote and rural locations.
- Facilitates the equitable delivery of healthcare, irrespective of potential location and/or language barriers. These systems can offer services in the first language of the patient/clinician or translation is easily effected by an intermediary using the structure of an e-second opinion.

College of Psychiatry

- The system furthers the interest of college members as it can facilitate the delivery of enhanced mental health care.
- Aligns College members with strategic health policies. The system may enable the College and its members to remain at the forefront of innovative mental health care.
- Enables the College and its members to maintain a pre-eminent position in the efficient and effective management of chronic health in the future (benefits to members and the population)

Academia

- The system may be used by academia to engage in disease management research within Australia.
- The system provides academics with the opportunity to work with Sentiens in the development of systems for the effective management of chronic health conditions in multiple areas of specialisation.
- The system may be used as a model to better understand the health, social and economic implications of a disease management system within Australia.



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- The system provides a model to measure the effectiveness of preventative measures such as health promotion in the management of chronic disease.



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Assumptions and Disclaimers

For the purposes of this paper, reference is made to seeking specific groups of benefits within the Medical Benefit Schedule for the management of chronic illness. The proposed system uses emerging world standard concepts of e-health clinical systems where clear accountability is a feature. The nature of these systems has become clearly documented in the international literature, with millions of patients using similar systems in the USA, Canada, continental Europe, the UK and Japan. These systems have common features and controls including: medical records, in-built clear and robust privacy systems, high levels of security and can, if appropriate, link to other medical systems. Further, these systems have clear audit trails and offer security to payers of delivery of service that is accountable and transparent.

Clear systems of accountability have been built into all areas of medicine and it is a basic premise of this paper that in order for e-health systems that support sophisticated chronic illness management to evolve, they must offer levels of guarantees of service delivery that satisfy the needs of all stakeholders in the delivery, receipt and payment for healthcare. Sentiens suggests that the benefits sought should apply only when there is a systematic and clearly articulated system of care with defined components. These must have an evidence base, be accountable and auditable, and be transparent to all parties.

We describe the Sentiens system in this paper. It should be made clear that this description of a service system is not unique on an international basis and similar systems have been implemented with success for a number of years. It is our belief that these e-health infrastructures will be as familiar in the future as are hospitals or internet banking is now.

It is further assumed that in order to deliver care that will adequately deal with chronic illness, clinicians require incentives to deliver such services. There are many new benefits that have been created in the last few years that have played a vital role in the capacity of medical practitioners to manage complex disorders and work within treatment teams. There are, however, a number of areas where further work will need to be undertaken to enable the delivery of effective chronic illness management strategies. The most significant gap in the current chronic illness delivery concept is the need for incentives for the infrastructure and case management that links the elements of the continuum of care. Patients with chronic illness will need multi-disciplinary and multi-faceted clinical support and adequate systems to effectively manage their conditions, from hospital through to community-based care.

With this level of involvement and commensurate systems definition, the Commonwealth would have the capacity to selectively licence and, therefore, control systems that could deliver e-health services and attract benefits. Despite the overwhelming benefits of a national online medical record, there is a well-identified need for online systems that communicate over the continuum of care and facilitate the management of patients,



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monitor progress, and provide methods to manage treatment resources and workflow.

It is further recognised by Sentiens that there are similar systems in evolution in the Australian space. Sentiens is therefore seeking MBS reimbursement benefits or pilot implementation benefits for the future wellbeing of all Australians. This discussion paper, which originates as a paper from Sentiens, refers only to Sentiens as our healthcare company and has no brief at this time to act on behalf of other parties. This paper aims to serve as a document where the issues have been considered in detail, and the underlying assumptions have been tested as rigorously as possible.



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