Otway Division of General Practice IMIT notes

Otway Division of General Practice is located in Southwest Victoria, stretching (very roughly) from near Geelong to the South Australian border, and northwards past Hamilton.

Population centres in the region range from tiny hamlets, to small and moderate sized rural towns, with four larger centres – Warrnambool (the largest), Hamilton, Portland and Colac.

The Southwest has a range of primary industries, including dairy and beef cattle, sheep, and various crops. Wind farming is a growing (if sometimes controversial) industry, while an aluminium smelter at Portland is the region's biggest single industrial site.

Tourism is a major industry, particularly in the scenic areas of the Great Ocean Road, Shipwreck Coast, Volcanic Trail and Otway Ranges. Seasonal tourist and holidaymaker influx often results in centres such as Warrnambool, Lorne and Port Fairy doubling in size, with increased workloads on all healthcare services, including General Practitioners.

General Practices

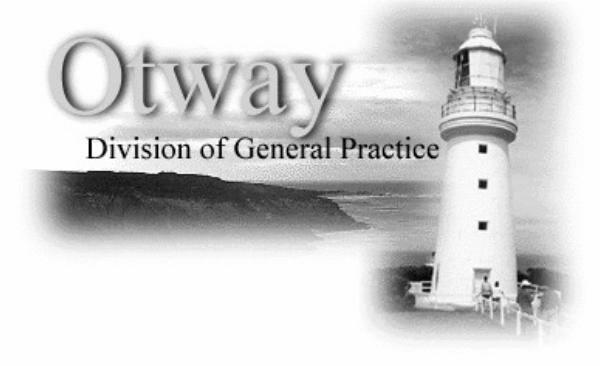
The region is serviced by 48 general practices, including part-time annexes of main practices and four Aboriginal Cooperatives with GP clinic facilities.

The largest practice, in Hamilton, has 14 doctors. Warrnambool and Colac also have several large practices, but most GP clinics are from two to four practitioners, with 22 solo practices.

Division offices

The Division employs 13 staff and maintains two offices – a head office in camperdown, and a branch office in Warrnambool. At present, most program coordinators work from the Warrnambool office. Some staff routinely work from home at least part of the working week.

For more details about the Division, visit our website: **www.otway.asn.au**.



Information Management Program

Following the departure in 2005 of long-serving IT consultant Bill Reid, the Division has redefined the IMIT program for a more strategic and developmental approach, although support services and consultancy remain.

Most larger clinics have commercial IT support for technical problems, and commonly require only consultancy services from the Division. Support services to smaller clinics are streamlined, with greater use of technology such as remote acess for improved service efficiency.

Information Management Program Coordinator Robert Moore is involved with project development both internally for Division needs, and for external clinic-related projects.

Notable Projects

Database/CRM

Difficulties implementing a Divisional database and customer relationship management system led to the creation of an desktop-based in-house solution (with the tongue-in-cheek title "RABID") to provide simple, easily-customised database functions, and to determine the most effective datasets for the Division and for individual program coordinators.

A second-stage database, ODIN, is now being implemented, with greater functionality. Centralized access via Terminal Services provided by XP Unlimited, a program that provides multi-user Terminal Services on Windows XP Professional.

Secure messaging

The IM Coordinator serves on the Steering Committee of the SWARH e-referral messaging group, which is trialling use of ArgusConnect for secure messaging between clinics and South West Healthcare hospital.

E-mail and Groupware

E-mail, shared calendars and shared contacts are available to Division staff through a Desknow server. As well as providing all internal email functions, and linking to an ISP mailserver for external mail reception and delivery, Desknow provides a range of groupware facilities, usable in full through a web client. At this stage, most staff members use a reduced groupware feature set through Microsoft Outlook email clients.

Intranet

Policies, accreditation standards, forms, documents, links and forums are available in structured but easily-accessible form on the Division intranet. Second-stage redevelopment of the intranet will allow direct content submission by all staff.

Peer-to-Peer Virtual Private Network

Use of the BizVNN virtual private network provides the Division with secure network access from many locations, both broadband and dialup, and through many common firewalls. Data transfer on the VPN is directly between computers, rather than through a central server, providing good performance.

Aged Care Connectivity Project

Connection from Rural Aged Care Facilities to GP clinics is being trialled as a means of allowing script printing and access to GP clinical notes.

A variety of network scenarios must be accommodated – in some cases both the GP clinic and RACF are on the same network, in others they require VPN connection between different networks with differing access policies.

As well as the technical challenge of providing the initial connection, printing remains a problem area for some installations, especially achieving consistently-correct multi-tray printing under Terminal Services.

Corangamite Managed Care Network intranet and website

A midwifery initiative between the Division and four hospitals will gain a public website for patient education and health promotion, plus a comprehensive secure intranet portal for staff education, messaging and collaboration, rostering, and midwife diaries.

Technologies tested on internal projects such as the division intranet, peer-to-peer VPN and email/ groupware will be used.

The VPN for the intranet will join hospitals, clinics and nurses' homes.

Useful Software

Desknow

www.desknow.com

Australian-designed mail and collaboration (groupware) server. A Java program using a PostgreSQL database, Desknow can run on Windows workstations, Windows server, and Linux.

Provides multi-domain support, with configurable user communities and classes within each domain. Usable as a primary mailserver directly on the Internet, or as a departmental groupware server using an ISP for outside reception/transmission of email.

Clustering, load balancing, and self-registration of users make it suitable for large installations. Staged changeover of users from ISP mail accounts is possible, as user accounts for the same domain not held locally can be passed on to an external server.

Anti-spam is built-in using several techniques, and a number of commercial, free and open source anti-virus programs can be linked into the server.

Administration is through browser forms or direct editing of configuration files. Mailing lists can be generated by the administrator, or users can create shared folders to achieve the same result.

Browser-based access gives the most complete feature set, including email, calendars, contacts, tasks and server-based file storage. Calendars, contacts etc can be shared with other users, with discussion lists and instant messaging providing additional groupware functionality.

An optional connector provides shared folders in Outlook. Occasional calendar and task duplication seems to be the only problem with the connector. Obviously a known problem, as the connector client has a "de-duplicating" feature to remove the duplicate entries.

The server is stable, and simple to backup, restore and upgrade. Support for registered users, via e-mail, is prompt and knowledgeable. The Desknow site also has extensive discussion forums.

MDaemon

www.mdaemon.com

Heavy-duty mail and groupware server, with a huge feature list. Suitable for use as a primary mailserver on the Internet, or as an internal mailserver using an ISP for external transmission and reception of mail.

Mail is stored in a folder system rather than a database, simplifying troubleshooting and mail backup. Comprehensive configuration options, including multiple domains, domain aliasing, domain name translation on outgoing mail, and flexible rules for mail delivery and sorting.

Antivirus, antispam using a variety of techniques, and incoming filters and rules provide comprehensive defences against malware and hacking.

The webmail client provides shared calendaring and shared contacts for groupware functionality, while an optional connector provides shared contacts and calendars in Outlook.

In common with other Outlook connectors, some problems seem to occasionally arise, especially if Outlook is restored from a backup with shared calendars in place.

BizVNN

www.bizvnn.com

Peer-to-peer Virtual Private Network (VPN) system for flexible, secure networking between computers in a variety of situations.

Computers can be linked from behind most common NAT firewalls; a range of ports can be configured in the client to cope with firewall security.

Each VPN group is set up as a named network, inaccessible from other BizVNN networks.

Client software on each computer communicates securely with a central server, which gathers the addresses of computers in the network group. Once a client is "told" the address of a target computer by the central server, it connects directly to the target machine for all data transfer.

The server software can be purchased, or client licences can be purchased for varying periods of time, using the vendor's server as a managed service. A secure portal allows management of clients.

A mixture of encryption technologies is used for each stage of the VPN process, with data transfer using 3DES encryption.

Performance across domestic and business-level broadband is very good; even dialup access works well for light-duty needs such as email retrieval. Like all WAN setups at common broadband speeds, use of thin clients or browser-based applications is far more successful than attempting thick client use with heavy data loads across the VPN.

The client provides black- and whitelisting for security control, plus "buddy" lists of frequently-used computers, which are checked regularly for any address changes to speed re-connection.

The client allows file transfers and chat, and provides network neighbourhood browsing, although display times over common broadband or dialup connections are too slow for practical use. FTP or command prompt batch file transfers work well.

XP Unlimited

www.xpunlimited.com

Utility to provide multi-user terminal services on Windows XP Professional. Provides many of the features of a terminal server at significantly less cost. Can be used with Active Directory or in workgroups. The "Enterprise" version of the software provides greater integration with the local user desktop.

Users can be assigned access to specific applications rather than the entire desktop, enhancing security. Many other terminal services security and users settings may also be configured.

Big Medium

www.globalmoxie.com

Content Management System, installed on the webserver for use by multiple users. Users may have differing group levels assigned to control the amount of access to the site.

Form entry allows the addition of content, including pictures, for output as SHTML pages. The program works from Perl scripts, and no database is used.

Rather rigid "newspaper" style structure, with sections and subsections. Section pages display lists of articles from subsections. Can generate its own menus, but greater flexibility can be achieved by designing the menu separately to link to specific pages within sections.

Big Medium works best on a Unix or Linux server, although Windows server operation is quite possible.

A version for Windows is in late Beta, and includes additional features such as an image gallery and more flexibility in determining sectional content display.

Citydesk

www.fogcreek.com/citydesk

Content Management System, allowing simple form-based content entry while page layout is controlled by templates. Templates allow multiple versions of the site, for example to provide different languages or different page sizes.

Works from the desktop using a Jet (Access) database and produces HTML files for upload to the final site through an included FTP client. Uses a scripting language to allow control of page content, including containing one page within another, generating lists of contents, and deciding simple loops for displaying multiple pages.

Sadly, development seems to have stalled, although plugins and templates are available from some other sites.

Good for website development where the site will be administered by one or two people.

Microsoft Access

www.office.microsoft.com

A powerful but relatively easy-to-use database, with good connectivity to the rest of the Microsoft Office family, increasing database versatility.

While a full programming language is available, it is possible to build many applications entirely through the use of wizards and GUI tools for table, form, query, macro and report creation. Strong report and query creation tools make Access a useful "front-end" to SQL databases.

The popularity of Microsoft Office and Access means resources, programmers and support are readily available.

By default, each database and all associated controls, forms etc are held within one file – both a strength and a weakness. Backups and file transfers are simple, compared with many other databases. However, a corruption of the file is often a recipe for disaster! Even using various Access recovery tools, full recovery of a corrupt database is usually more a matter of good luck than good technique. Regular backups are the golden rule.

Although often thought of as a desktop database, Access works well on small to medium-sized networks. The usual network method is to "split" the database, installing the data tables on the network server, and the forms, reports and queries on users' desktops. This improves reliability and reduces the chances of file corruption.

The same "splitting" technique can be used if the database is accessed through Terminal Services, or indeed for single-user desktop applications.

Other powerful databases offering similar ease-of-use, are Filemaker (www.filemaker.com) and Alpha Five (www.alphasoftware.com)