

# Health Informatics trends and issues – Telehealth and Telenursing

HIC 2008 – Nicole Lewis

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|-----------------|--|
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# Overview

- Healthcare systems and the current environment
- Why Telehealth?
- Why Telenursing?
- What is GP Assist (Tasmania)
- How does GP Assist use Telenursing to provide patient care?
- What are the benefits?

# How are health care systems changing?

- Easing the pressure on hospitals through promotion of community and home care.
- Age of Australian population over 65 growing
- Healthcare systems historically designed to manage acute illness
- Increased spending on Chronic disease
- Management of Chronic disease needs to be improved
- Telehealth offers significant and increasing opportunities to contribute to this paradigm shift.

# Telehealth

“ The delivery of healthcare services, where distance is a critical factor, by healthcare professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, and for the continuing education of healthcare providers as well as research and evaluation, all in the interests of advancing health of individuals and their communities”

*The World Health Organisation 1997*

# Telenursing

- Telephone triage is not new
- Why has it changed?
- Registered Nurses using decision support software

“Decision support systems couple the intellectual resources of individuals with the capability of the computer to improve the quality of decisions”

*Gorry and Scott-Morton 1971*

“Telephone triage can reduce unnecessary presentations to health services such as emergency departments and general practitioners by enabling patients to self-care more confidently”

*Delichatsios et al 1998*







## Tasmania

- South Island
- Population 458,000
- Capital Hobart 220,000
- Half State World Heritage
- General Practice essentially rural beyond Hobart
- 521 General Practitioners
- 4 Major Public Hospitals
- Many Community/Rural Hospitals and Health Centres



# GP Assist (Tasmania)

- GP Assist (Tasmania) state wide nurse telephone triage and doctor medical advice service
- Supports rural GP s and their communities by providing workforce relief
- Funded by the Australian Government's Department of Health and Ageing (DoHA) and the Tasmanian Department of Health and Human Services (DHHS)
  - provides after hours workforce relief to rural GPs throughout the State
  - covers 89% of the states GPs
  - is an innovative, successful and working application of available technology used to drive service change
  - integrates a nurse triage centre, GPs and other health care providers
  - Reduced GP after hours calls by > 90%
  - widely acknowledged by Tasmanian rural GPs to be an indispensable service -Recent Rural Workforce Survey for GPACT 40% leave rural practice if not for GP Assist



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**clinicalsolutions**

# Clinical Solutions

- UK based provider of triage software solutions internationally (UK NHS Direct and NHS 24)
- **Australia:** Queensland Health (13Health), Hunter Urban Division of General Practice and NHCCN SA for 12 months (July 2008 – July 2009)
- **Acquired AHD & GP Assist in May 2007 – first service provision for the company**





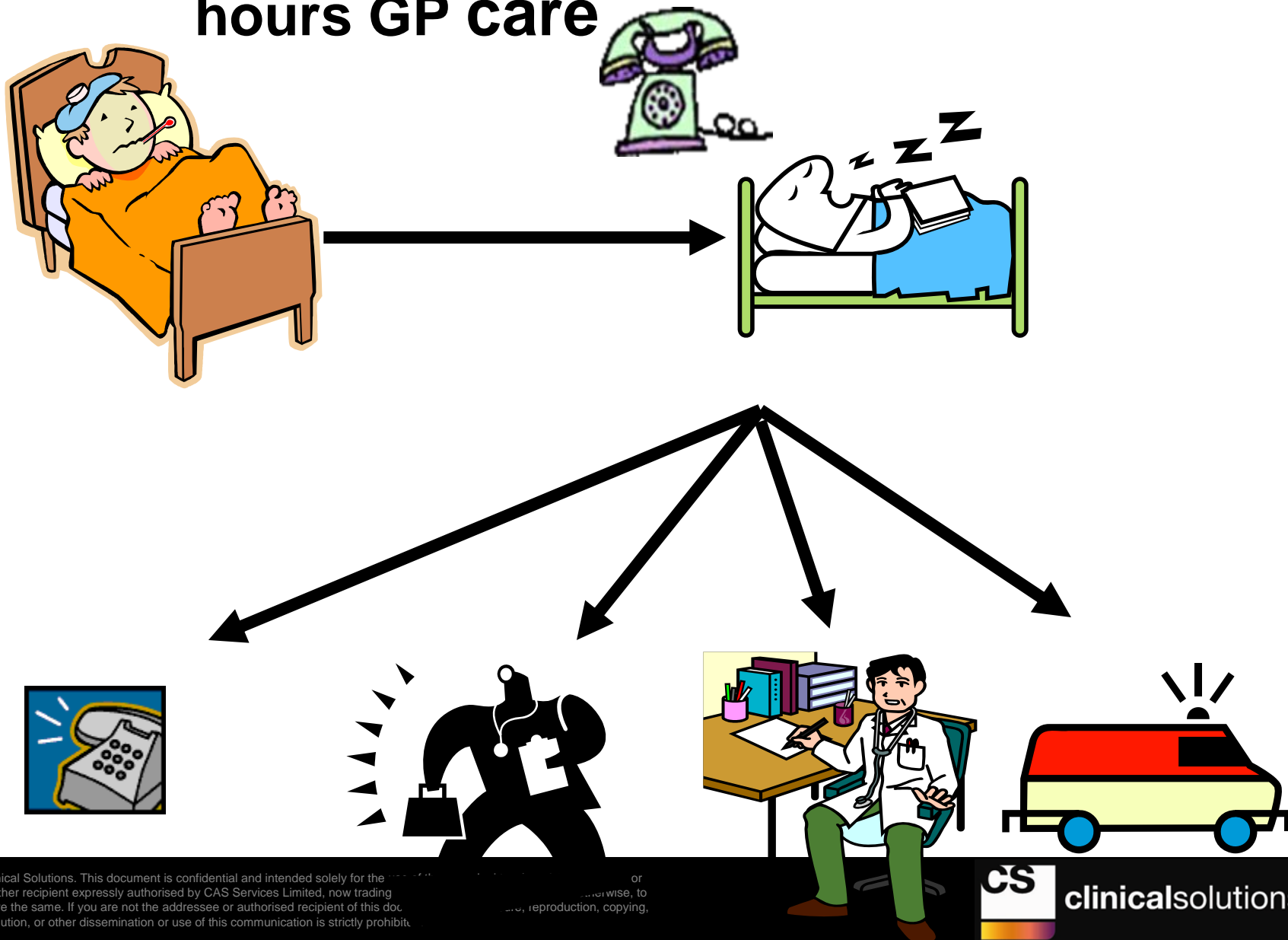
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# Existing arrangements for rural after hours GP care



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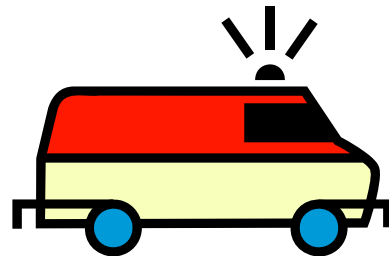
# GP Assist (Tasmania) Model



1300



**Self  
Care**



**Ambulance**





# Other triage doctor options:

- Prescriptions and medication orders
- Pathology results
- Life extinct declarations
- Direction to scheduled in and after hours clinics

# GP Assist uses ICT

- **Decision-support software**

To provide a systematic and evidenced-based response

- **SMS messaging**

To provide freedom of movement for triage doctors

- **Remote access via VPN**

(broadband, dial-up and wireless, (LAN, Next G, CDMA, GPRS etc) to allow access to and updating of medical records)

This encourages recruitment of scarce GPs as triage doctors

- **Detailed web-based database of service providers - GPs and pharmaceutical etc.**

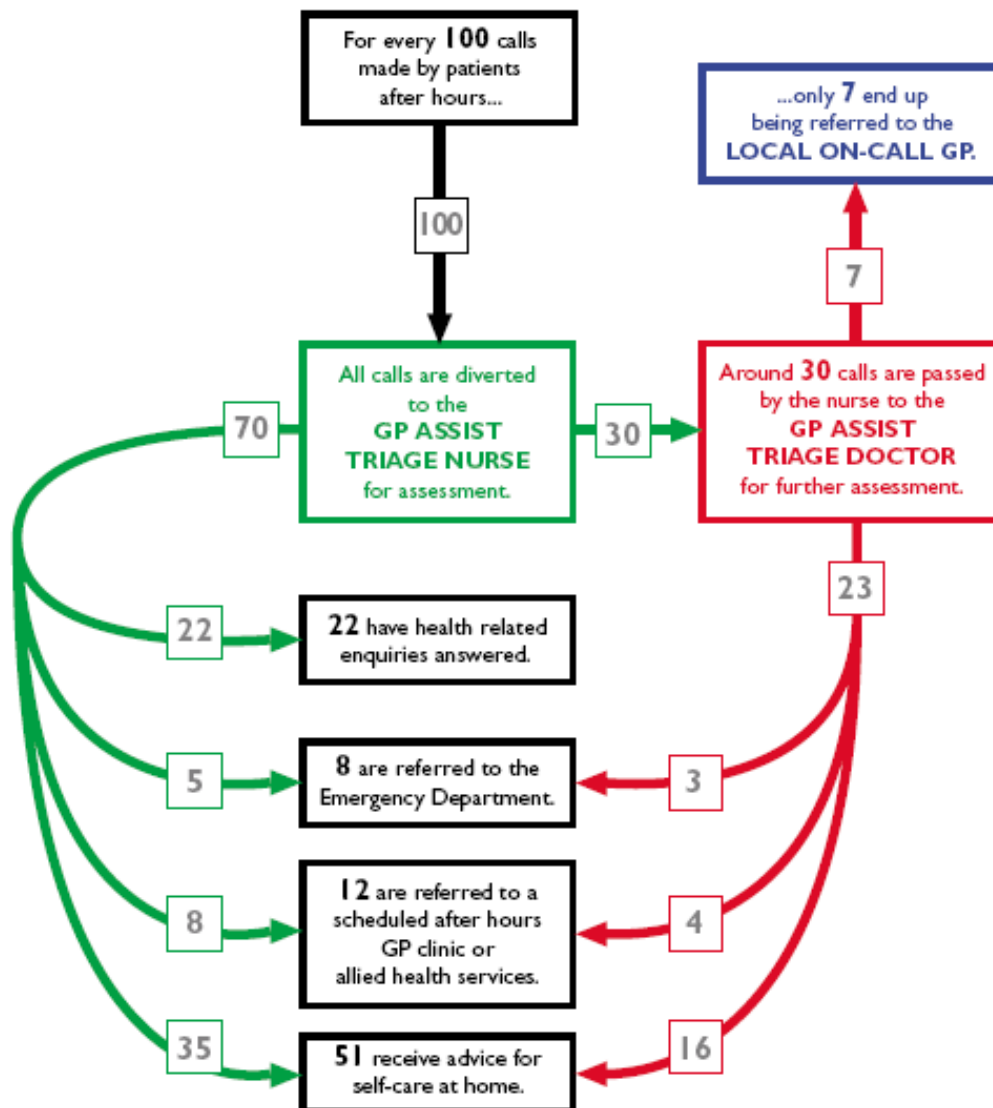
To provide 'live', up-to-date health service information.

- **Automated electronic dispatch of health summaries to GPs**

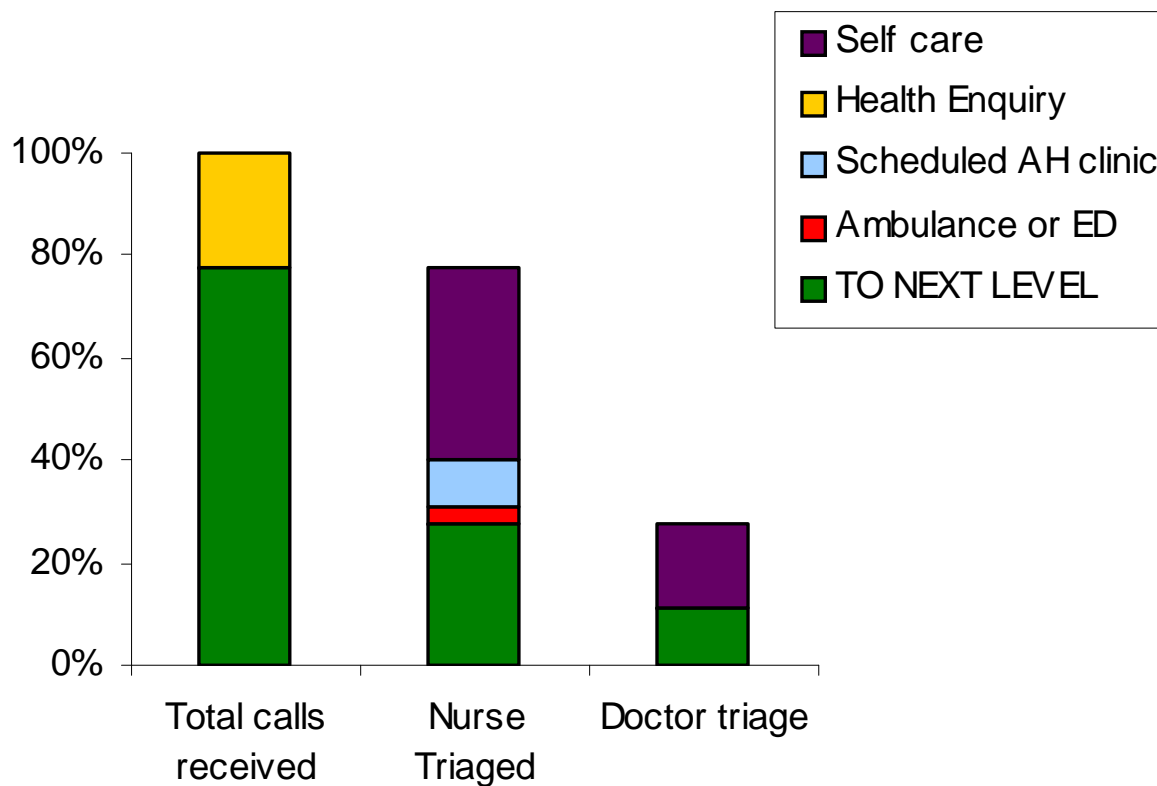
To enhance continuity of patient care



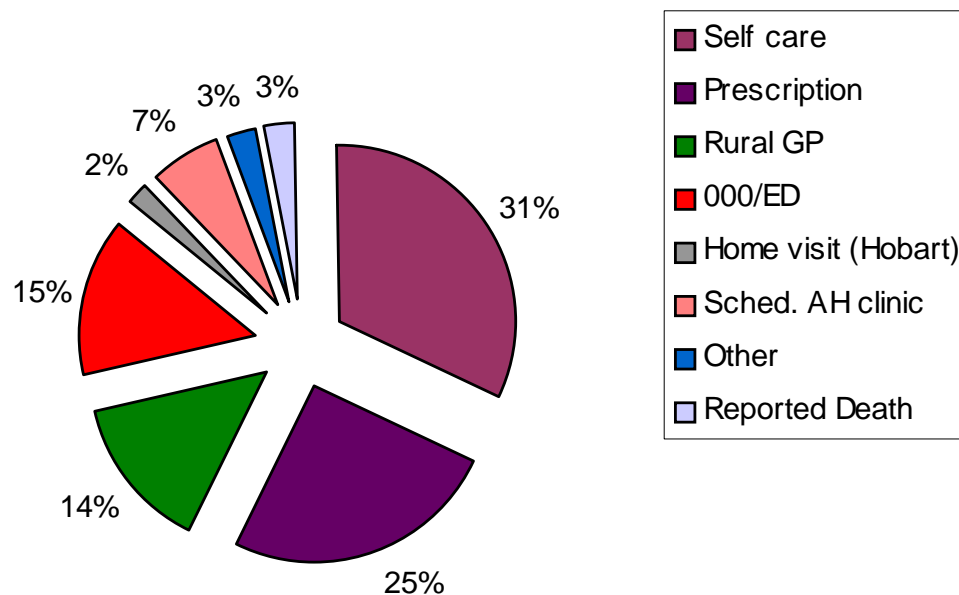
# Triage Outcomes



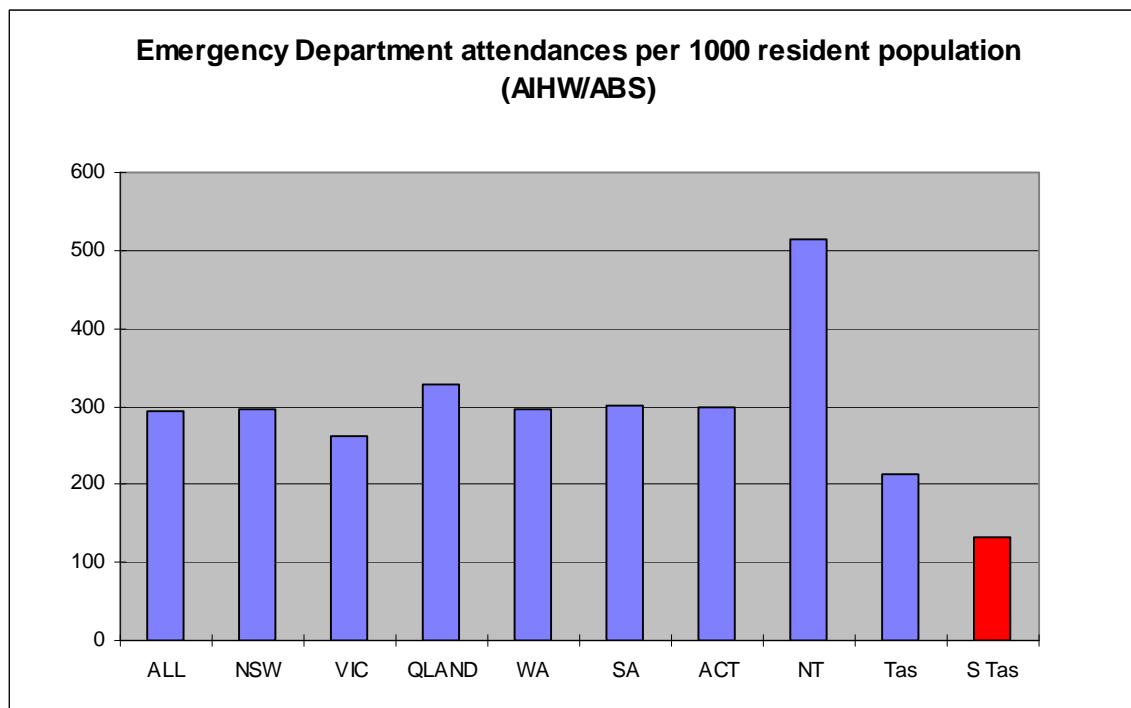
# SUMMARY OF CALL HANDLING AND NURSE DISPOSITIONS



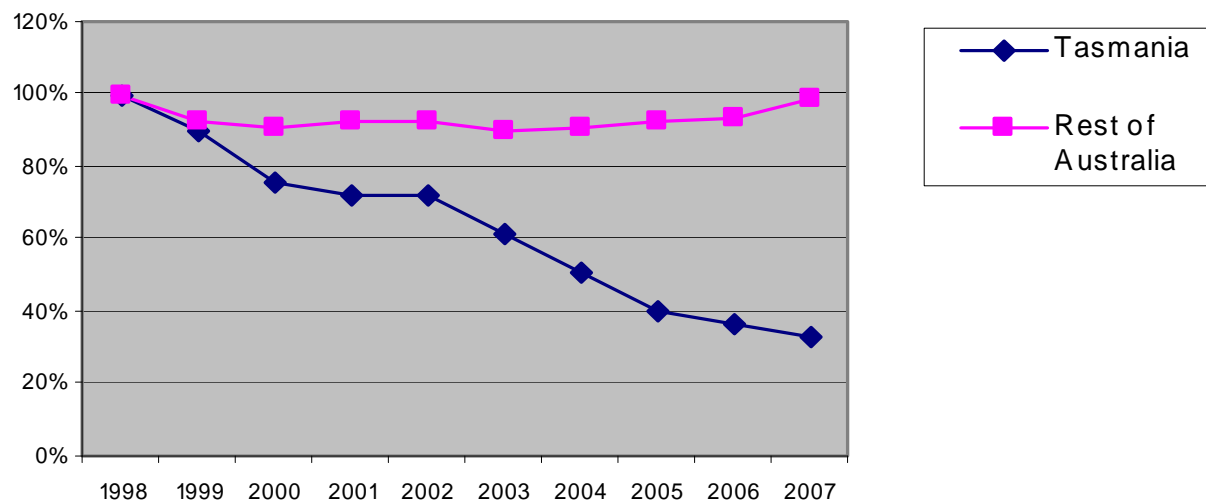
# DOCTOR DISPOSITIONS



## ED Attendances National comparison



### After Hours MBS GP Items of Service





- **Rural GPs** (90% reduction in after hours workload)
- **Patients acceptance high**(timely and guaranteed access to care)
- **GP Assist Staff** (new and professionally rewarding career option)
- **Government** (cost savings, staff support and GP retention)
- **Support for Community/Rural Hospitals, RACFS, District Nursing and Ambulance Services**







# Thank you

## Awards:

2005 Tasmanian ICT Industry Award for e-health

2006 Health Informatics Society of Australia, Don Walker Award for Efficiency

2007 Customer Institute of Australia Runner up National Not For Profit

## Contact:

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# References

- Gorry, GA and Scott-Morton, M.S A Framework for management information systems, Sloan Management Review, Vol, 13, no.1, pp 55-71
- Delichatsios, H. Callahan, M. Charlson, M. Outcomes of telephone medical care. JGen Intern Med, 1998: 13; 579-85