

Telephone Nursing Consultation Service

***Improving the Health of High Risk Elders
in the Community with a
Collaborative Community Health Care Program***

A Joint Project by HKEC CGAT & CNS

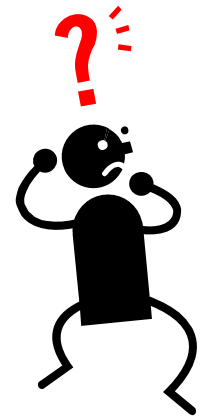
**Joan HO
DOM(IMS2), RHTSK**





Background

- Ageing Population
- Chronic diseases predominant
- Elderly constitutes 38.6% of patient days in Hospital Authority
- Inefficient handling of acute crisis of patients in the community except AED
- Lack of a good interface across different stakeholders in health care service



Telephone Nursing Consultation Service (TNCS)

- Telephone triage
- Referrals to appropriate community resources
- Provides Home Care Instructions
- Gives advice on disease management



Target Population

- **Patients discharged from Department of Medicine & Geriatrics in PYNEH & RHTSK and fit 2 out of 3 of the following criteria:**
 - **Frequent hospital admissions**
 - > = 3 acute medical admissions in one year**
 - **Multiple pathology**
 - > = 3 co-morbidities**
 - **Special diagnostic groups**
 - Congestive Heart Failure, COAD, Chronic Renal Failure, Malignancy**

Four Elements in TNCS

- Co-ordinates with relevant **healthcare stakeholders**
- Utilizes **protocols** to guide nurses' clinical decisions
- Links with the **Clinical Management System (CMS)**
- Utilizes '**High Risk Elderly Database & Alert System**'

**NGOs
District Elderly
Care Center**

Volunteers

GPs


**Community
Nursing
Service**



Hospital Service




GP can contact TNCS to enquire patient's medical history



港島東聯網醫院

護訊鈴健康諮詢服務



會員姓名： (中)

(英)

會員編號：

閣下可向有關之私家醫生出示此證，以方便其向本中心查詢閣下之醫療資料。

28 Telephone Triage Protocols Developed

- Abdominal Pain
- Appetite Loss
- Back Pain
- Black / Bloody stool
- Chest Pain
- Confusion
- Constipation
- Cough
- DM
- Diarrhoea
- Dizziness
- Falls
- Fatigue
- Fever
- Headache
- Hemorrhoids
- Hypertension
- Hypotension
- Insomnia
- Itching
- Joint Pain/ Swelling
- Leg Pain / Swelling
- Numbness and tingling
- Rash
- SOB
- Skin Lesions
- Swallowing Difficulty
- Weakness

ABDOMINAL PAIN

Key Questions: Name, Age, Onset ,Recent surgery, Injury

Question

Recommendation

A. Are any of the following present?

- Severe pallor
- Loss of consciousness
- Signs of shock
- Severe persistent pain
- Fainting/lightheadedness
- Vomiting blood or dark coffee– grounds-like emesis
- Rapidly worsening of symptoms

YES
Seek Emergency Care

NO
Go To B

B Are any of the following present?

- History of recent abdominal surgery
- RLQ pain with poor appetite, nausea and/or vomiting, or fever
- Bloody or black stools
- Ingestion of new medication
- Severe nausea and vomiting
- Temperature > 101°F (38.3°C)

YES
Medical care within 2-4 hrs

NO
Go TO C

C. Are any of the following present?

- History of hepatitis or exposure
- Unexplained progressive abdominal swelling
- Painful or difficult urination
- Blood in urine
- Pain interferes with activity

YES
Medical care with 24 hrs

NO
Go To D



D. Are any of the following present?

- Vaginal or urethral discharge
- Nausea, vomiting, diarrhea for more than 24 hours
- History of abdominal pain and usual treatment is ineffective
- Constipation
- History of irritable bowel
- Significant increase in stress level
- Intermittent mild pain associated with an empty stomach, eating certain foods, or use of antibiotic, or anti-inflammatory medications
- Mild infrequent diarrhea
- Other family members are ill

| |
|--|
| YES Consult GP/GOPC |
| NO Follow Home Care Instruction |

Home Care Instructions: Abdominal Pain,

- Clear liquids or bland for 12 to 24 hours.
- Take medications as directed by your doctor
- Apply heat (moist hot towel or heating pad) to the abdomen for cramping.

Additional Instructions:

Report the Following Problems to Your TNCS/GP/GOPC

- Severe pain > 2 hours and relieve by general measure
- Fever
- Bloody or black stools or emesis
- Pain worsens with heat or activity

Seek Emergency Care Immediately If Any of the Following Occur

- Unusually firm or hard abdomen
- Persistent vomiting
- Severe persistent pain
- Fainting/lightheadedness



Telephone Nursing Consultation Service [Icons]

Patient Information MKC Details Alert
Case: [Text Fields]

General Info. Assessment Intervention 1 Intervention 2 F.U. Call Return Call

Referral Date 00-00-0000 [Dropdown]

Initial Call
Date & Time 00-00-0000 00:00 [Dropdown] Called by [Dropdown] Relationship with patient [Dropdown]
Finished at 00-00-0000 00:00 [Dropdown] Name of Caller [Text Field] Tel. No. [Text Field]

Membership Status
 Under the care of Post Discharge Follow-up Programme RHTSK TWEH PYNEH N.A.
 Under the care of Home Help Service [Dropdown]
 High risk elderly data base project

Other Relevant Information
Regular F. U. in G.P. No Yes
Name of G.P. (1) [Text Field] (2) [Text Field]
Regular F. U. in other Clinics No Yes
Name of Clinic (1) [Text Field] (6) [Text Field]
(2) [Text Field] (7) [Text Field]
(3) [Text Field] (8) [Text Field]
(4) [Text Field] (9) [Text Field]
(5) [Text Field] (10) [Text Field]
Current Community Support Home Help [Text Field] ... CNS [Text Field] ...
 AHCP [Text Field] ... Others [Text Field] ...

Created by [Text Field] on [Text Field] Updated by [Text Field] on [Text Field] >

Telephone Nursing Consultation Service [Icons]

Patient Information MKC Details **Alert**

Case: [Text Fields]

General Info. **Assessment** Intervention 1 Intervention 2 F.U. Call Return Call

Chief Complaints
Complete description (location, quality, quantity, radiation?)

Onset
Gradual or sudden, since when?

Associated Symptoms
What other symptoms accompany this problem?

History of Complaint
Same previous hx, dx, acute/chronic problem, new/old problem?

Aggravating & Relieving Factors
What makes it worse or better?

Others

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New Go to Copy Print Save Close

Clinical Management System CH [Icons]

File Clinical Investigation Enquiry Booking Report Doc./Print Other System Info. Admin.

[Icons: Close/Logout, Dx/Px, Disc Info, Con Sum, OP Book, Rx, Modify Rx, Ix Request, Letter/Doc, Lab Result, Rad Result, PMI, Lab/Rd Rpt, Next Pat]

Telephone Nursing Consultation Service [Icons]

Patient Information MKC Details **Alert**

Case: [Text Fields]

General Info. Assessment **Intervention 1** Intervention 2 F.U. Call Return Call

Protocol Used Yes No Reason [Text Field]

(1) [Dropdown] (2) [Dropdown] (3) [Dropdown] Others [Text Field]

Triage Categories

Emergency Urgent Non-urgent

Specialist Consultation

No Yes (1) Name [Text Field] Rank [Text Field] Date/Time [Time Picker]

(2) Name [Text Field] Rank [Text Field] Date/Time [Time Picker]

Remarks [Text Area]

< Created by [Text Field] on [Text Field] Updated by [Text Field] on [Text Field] >

[New] [Go to] [Copy] [Print] [Save] [Close]

Telephone Nursing Consultation Service [Icons]

Patient Information MKC Details **Alert**

Case: [Text Fields]

General Info. Assessment Intervention 1 **Intervention 2** F.U. Call Return Call

Advice Given

- Go to A&E Department
- See G.P. within 24-48 hours
- See GOPD within 24-48 hours
- Book early F.U. appointment
- Arrange Ad hoc doctor's clinic
- Arrange direct admission to hospital
- Refer to CNS/CGAC/GDH
- Refer to Allied Health
- Refer to volunteer service
- Refer to DECC/IFSC
- Health Education
- Drug Management
- Environmental advice
- Information on community resources
- Others

Does the caller agree with the advice given? Yes No Reason [Text Field]

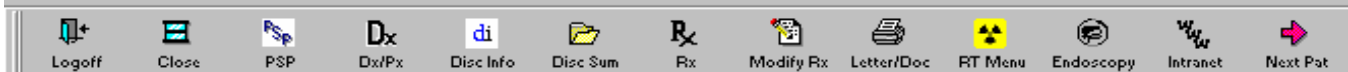
Remark: Ask caller to call back if problem worsened.

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New Go to Copy Print Save Close

TNCS utilizes
'High Risk Elderly Database
& Alert System'
to capture high-risk elders and
follows up them actively.





High Risk Elderly Record

Patient Information Details +Alert

Case: HN93084072(Y) HKID: C010105(0) Name: PATIENT, 80 病人 Sex: F Age: 83y

Geriatric Assessment

High Risk Patient: **Include Reason/Category:** CGAT CNS EHCCS/IHCS TNCS MSW NGOs GDH

Marked High Risk Date: 00/00/0000

Living Alone Frequent Adm Poor Support >=2ADL >=3 comorbidities poor drug compliance special diagnostic group Others

Actively Follow-up: CGAT(Dr) CNS EHCCS/IHCS(HA) MSW NGOS

Marital Status: Single Married Widowed Widower Divorced

Next of Kin: Name: Tel:

Financial Asst: CSSA OAA Diet Suppl NDA Diaper Suppl HDA

Family: Alone in HK Live with Family With Maid Aged Home Family in HK Guardianship Others

Conscious Level: Alert Apathetic Confused Stuporous

Communication barrier: **Dialect:**

Vision: Normal Poor Blind Glasses

Mood: Normal Depressed Anxious Irritable Mute

Speech: Clear Unclear Speech No Speech

Hearing: Normal Poor Deaf Hearing Aid

| ADL: | Feeding | Dressing | Toileting | Bathing | Transfer | Ambulating | Ambulation: |
|--------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|
| Self | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> Independent <input type="radio"/> Frame Walker |
| Asst | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> Domestic Walker <input type="radio"/> Chairbound |
| Depend | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> Assisted with Stick/Quad <input type="radio"/> Bedbound |

IADL: Laundry Housekeeping Shopping Meal Preparation

Diet: Normal NG Tube PEG Special Diet Others

Pressure Sore: None Sites

Continence: None Occasional Urinary Double On Napkin

History of Fall (recent 6 months): Yes No

Score: MMSE: (0 - 30) AMT: (0 - 10) BI: (0 - 20) or Norton: (5 - 20) EMS: (0 - 20) (0 - 100)

Drug Compliance: Good Fair Poor

Last update date: 18/05/2005 16:28

Delete Save Undo Print Close



High Risk Elderly Report

PAMELA YOUDE NETHERSOLE EASTERN HOSPITAL CLINICAL MANAGEMENT SYSTEM

Report on High Risk Elderly Admission/Discharge during 17/05/2005 to 18/05/2005

Report Time : 18/05/2005 08:09

High Risk Category: CGAT

| HKID | Patient name | Sex | Age | Death date | Case no | Adm hosp | Adm Source | Adm dtm | Dis. dtm | Dest. | Last spec | Last ward no | Bed home |
|-----------------------------|------------------------|-----|-----|------------|-------------|----------|------------|------------|----------|-------|-----------|--------------|--|
| Follow-up team : CG6 | | | | | | | | | | | | | |
| B0330005 | KOK, [REDACTED] | M | 83 | | HN05009223V | RH | 4 | 17/05/2005 | | | GERA A4 | 28 | SHUN FUK HOME FOR AGED (CHAI WAN BRANCH) : CW - CHAI WAN ROAD 220, SHOP G ON G/F, 1/F 7 SHOP G ON 2/F, WAH TAI MANSION |
| A4070009 | CHEUNG, Y [REDACTED] U | F | 88 | | HN05009216S | RH | 4 | 17/05/2005 | | | GERA B4 | 23 | SUN LIGHT GEROCOMY CENTRE (C.W.) : CW - CHAI WAN ROAD 111, 2/F., Rm.B |
| A7800005 | AU, K [REDACTED] | M | 73 | | HN05009232U | RH | 3 | 17/05/2005 | | | AINM A7 | 33 | SUN LIGHT GEROCOMY CENTRE (C.W.) : CW - CHAI WAN ROAD 111, 2/F., Rm.B |
| B9000008 | TSE, S [REDACTED] | F | 92 | | HN05009222X | RH | 3 | 17/05/2005 | | | AING B4 | 37 | T.W.G.HS. YU CHUN KEUNG MEMORIAL CARE AND ATTENTION HOME : WCH - WONG CHUK HANG PATH 2, PORTION OF LOWER 2/F & 2/E EAST & WEST WING OF 1/E & 2/E |
| A1000007 | CHAN, [REDACTED] | F | 79 | | HN05009205X | RH | 4 | 17/05/2005 | | | GERA B4 | 09 | T.W.G.HS. YU CHUN KEUNG MEMORIAL |

High Risk Category: ALL

- ALL
- CGAT
- CNS
- EHCCS/IHCS

Start Date: 17/05/2005
(Admission/Discharge)

End Date: 18/05/2005
(Admission/Discharge)

Retrieve

Page Up

Page Down

Close

Average Workload per Month

- **No. of patients registered in the TNCS high-risk database in March 2006: 2414**
- **No. of calls made/month: 365**
- **Average duration/call: 19.3 min.**
- **Time for heavy co-ordination work and data retrieval have not been counted.**
- **No. of calls initiated by nurse: 270**
- **No. of consultation calls from clients: 95**

Study Population

- **Patients discharged from Department of Medicine & Geriatrics in PYNEH & RHTSK and fit 2 out of 3 of the following criteria:**
 - **Frequent hospital admissions**
 - > = 3 acute medical admissions in one year**
 - **Multiple pathology**
 - > = 3 co-morbidities**
 - **Special diagnostic groups**
 - Congestive Heart Failure, COAD, Chronic Renal Failure, Malignancy**

Exclusions

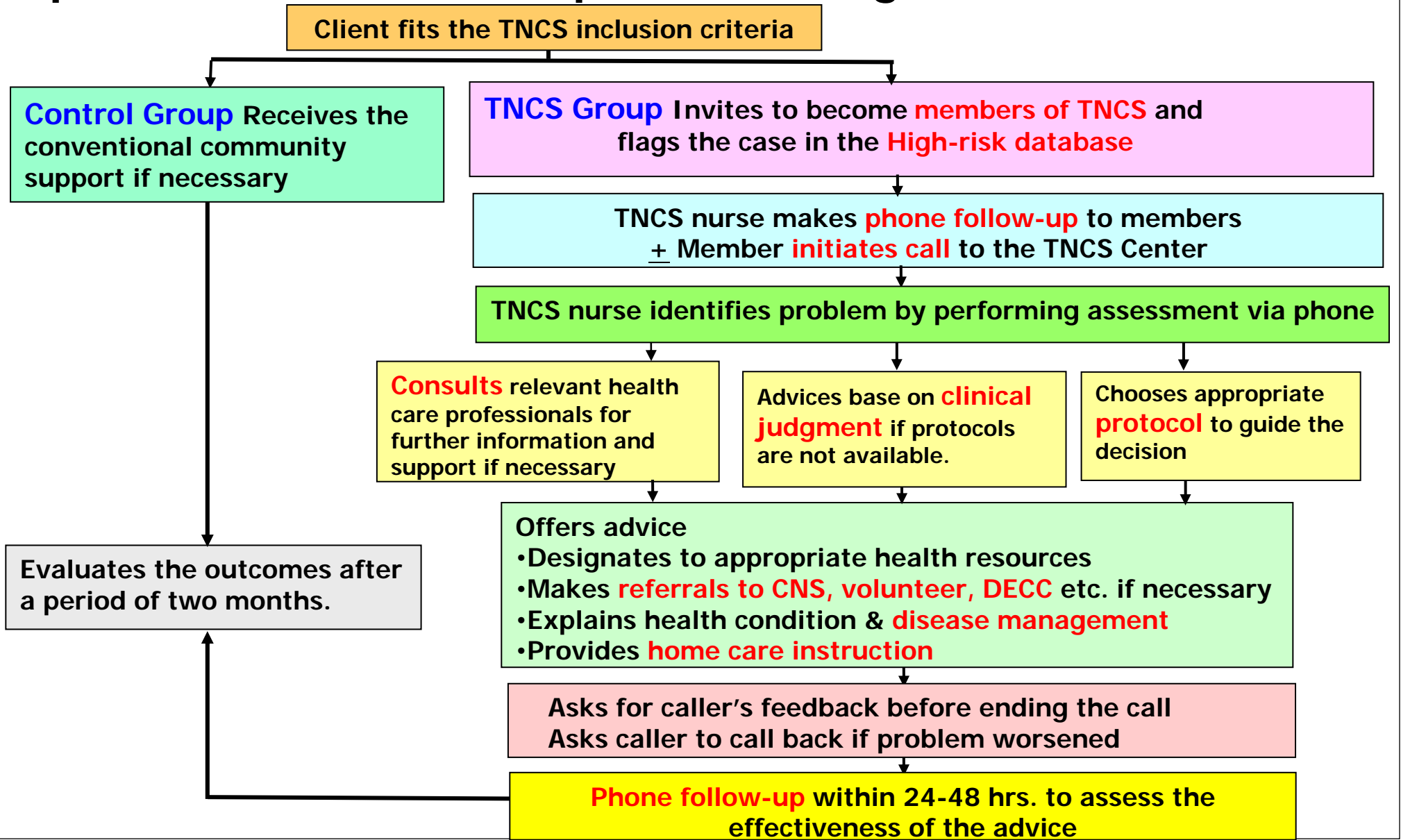
- **Living at old age homes**
- **Under the care of Enhanced Home & Community Care Service / Integrated Home Care Service**
- **Receiving intensive community programs e.g. Post Discharge Home Follow-up Program**



Methodology

- **230 patients recruited from 12 Sept 05 to 27 Jan 06**
- **Randomly assigned to**
 - **Control group (conventional, no TNCS)**
 - **TNCS group**
- **Demographic Data were compared**
- **Results at 2 months after TNCS service**
 - **AED attendance**
 - **Number of admissions**

Operational Flow on Telephone Nursing Consultation Service



Results

- Out of the 230 recruited cases, 32 dropped out from the program due to the following reasons:
 - 29 died
 - 3 moved to OAHs
- The final TNCS samples were **97** and control samples were **101**

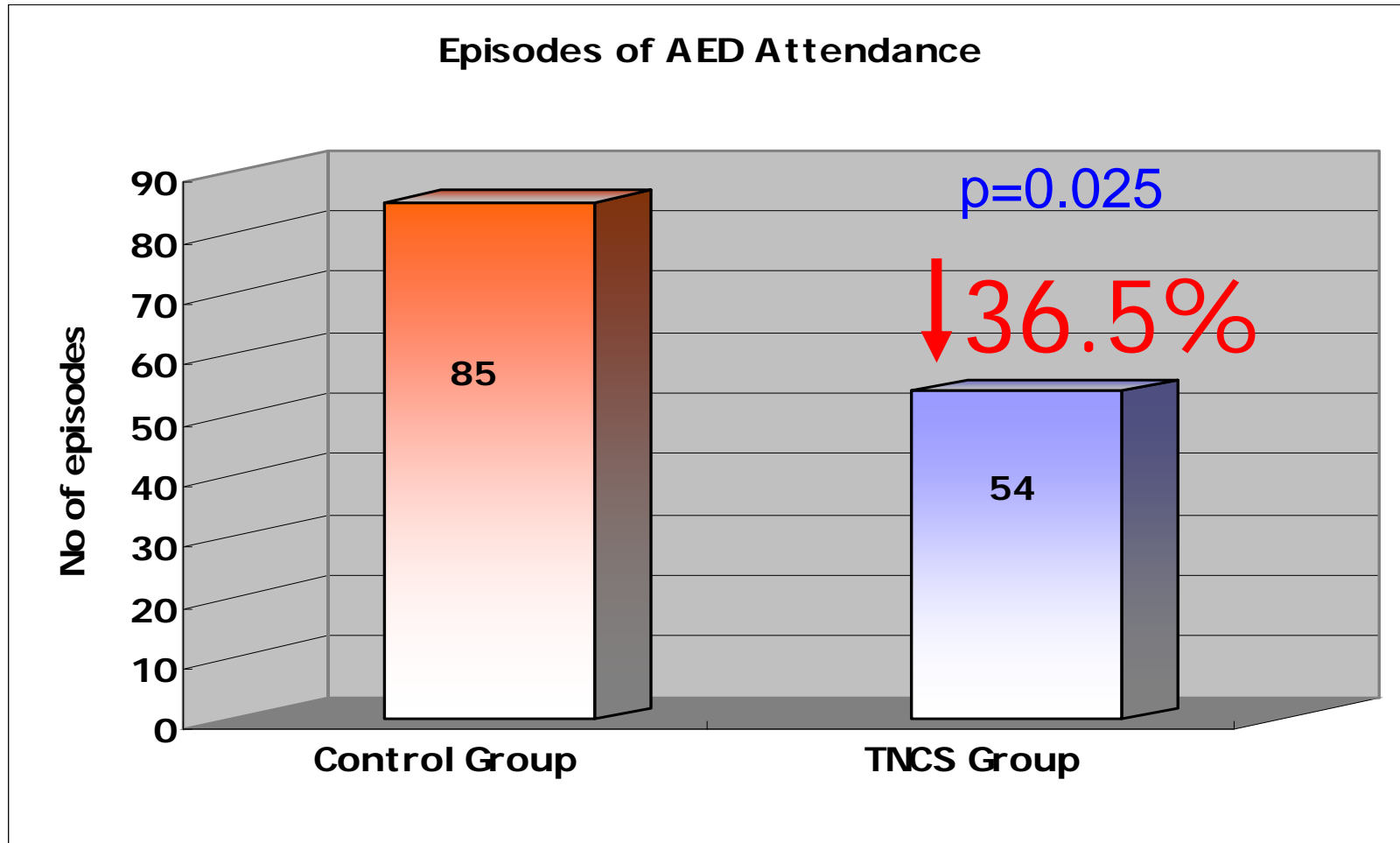
Results - Demographics

| | Control Group (n = 101) | TNCS Group (n = 97) |
|---|----------------------------|------------------------|
| Age | 78.1 (65 – 91) | 78.4 (65 – 93) |
| Sex M:F | 52:49 | 46:51 |
| Patients with medical diagnoses ≥ 3 | 92 | 90 |
| No. of regular medications (mean) | 4.8 | 4.75 |

All Comparable ($p > 0.05$)

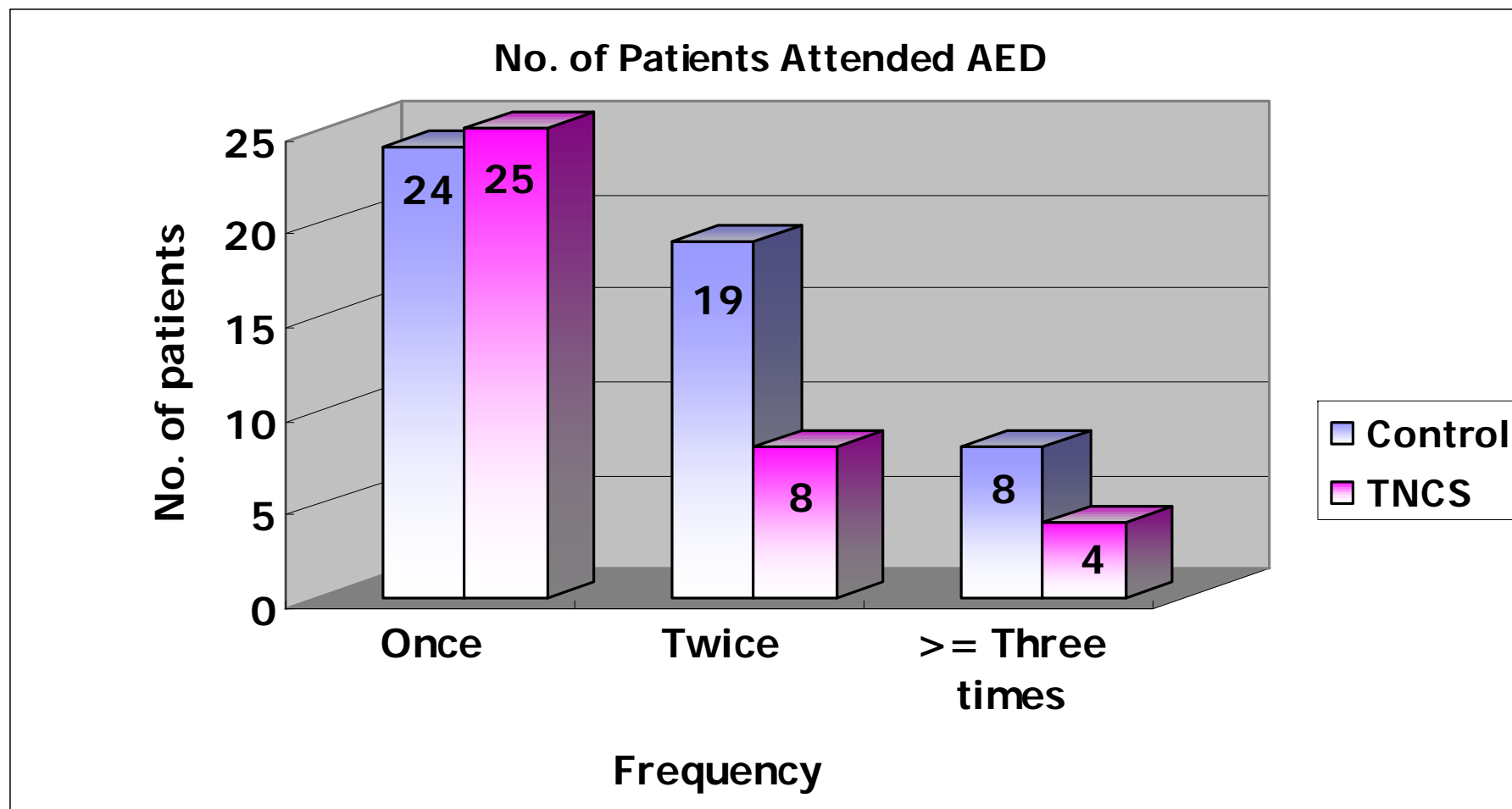
Outcomes

Decreased Total AED Attendance



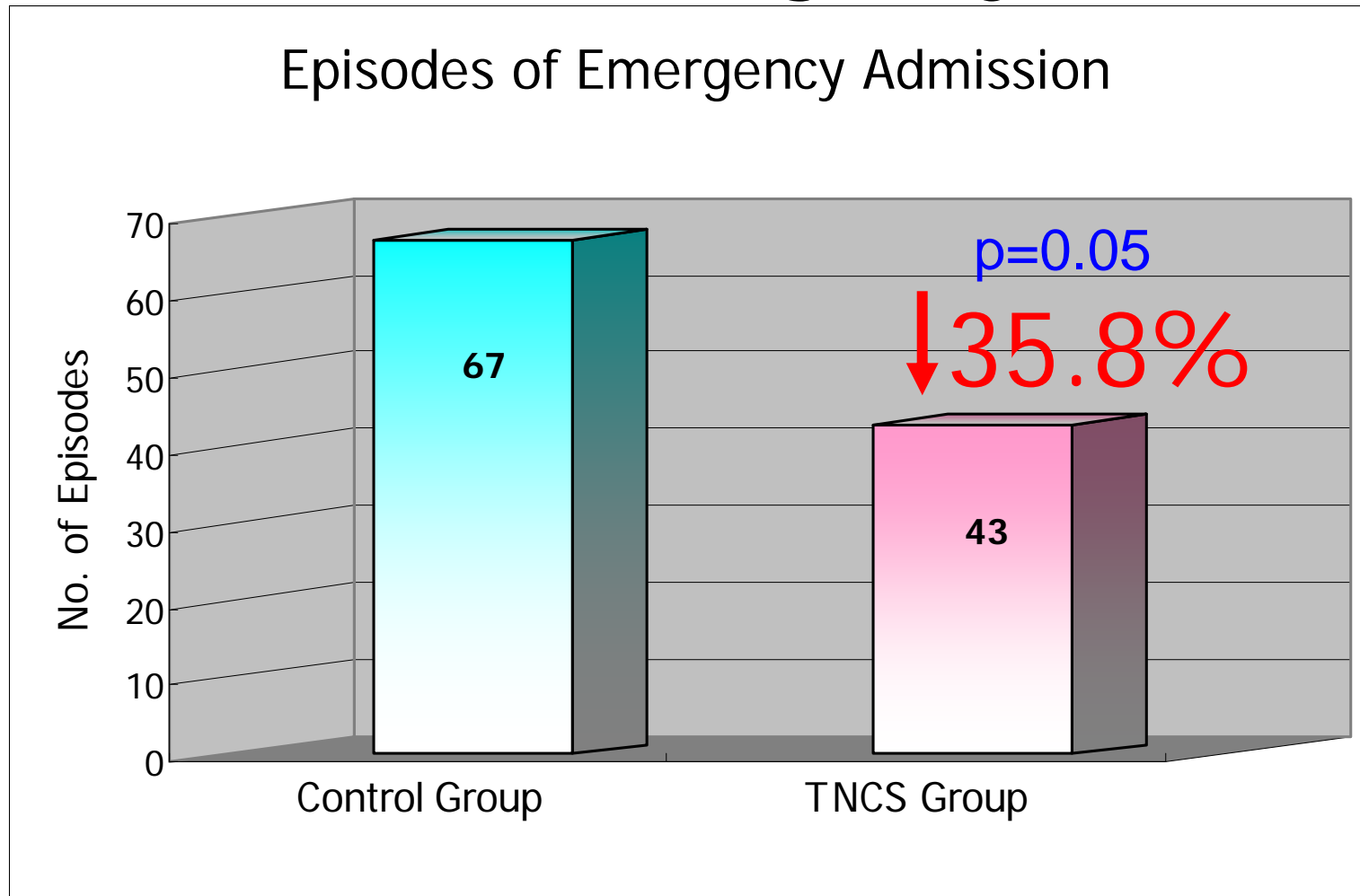
Outcomes

Reduced Multiple AED Attendance



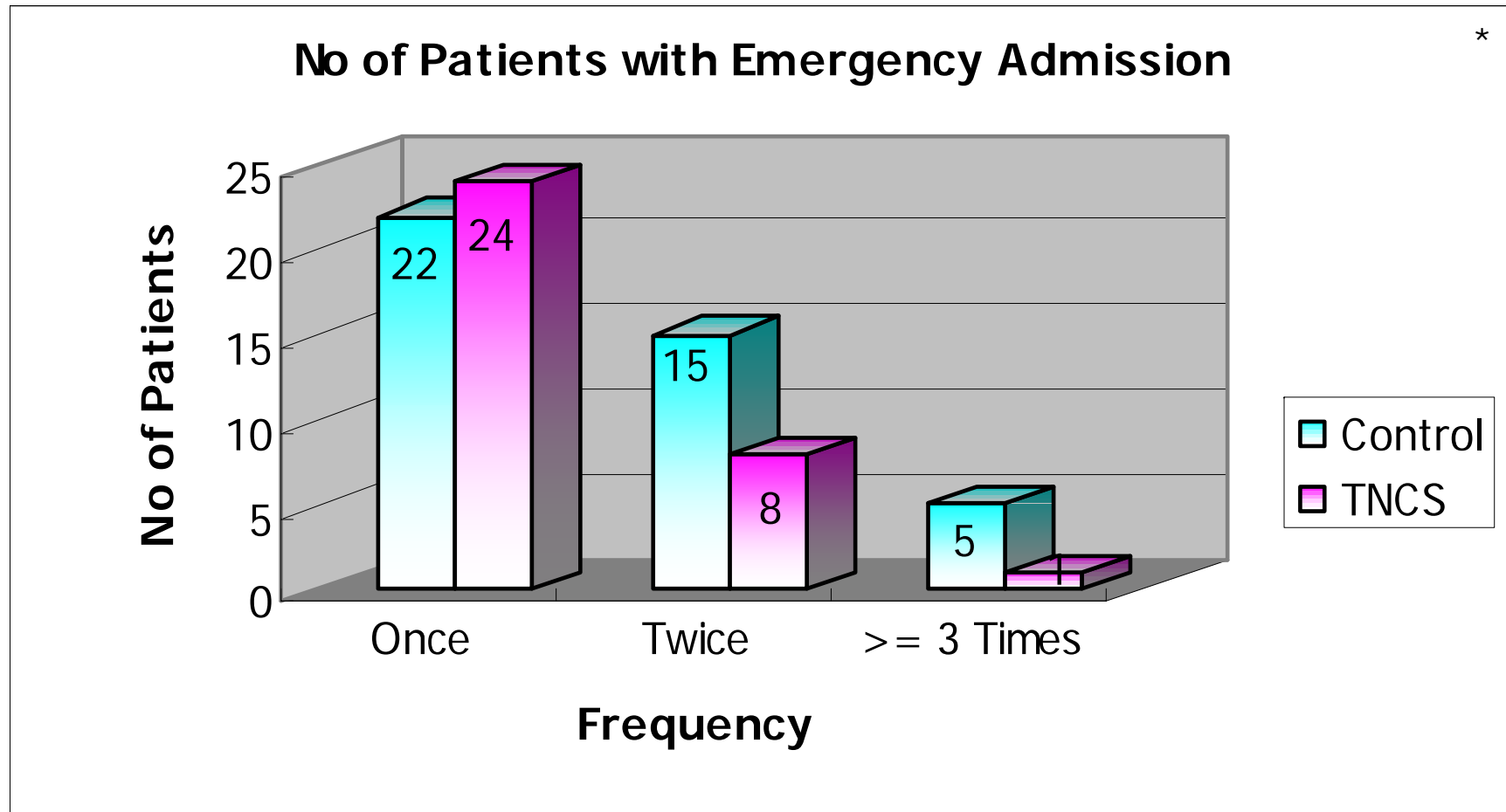
Outcomes

Decreased Total Emergency Admissions



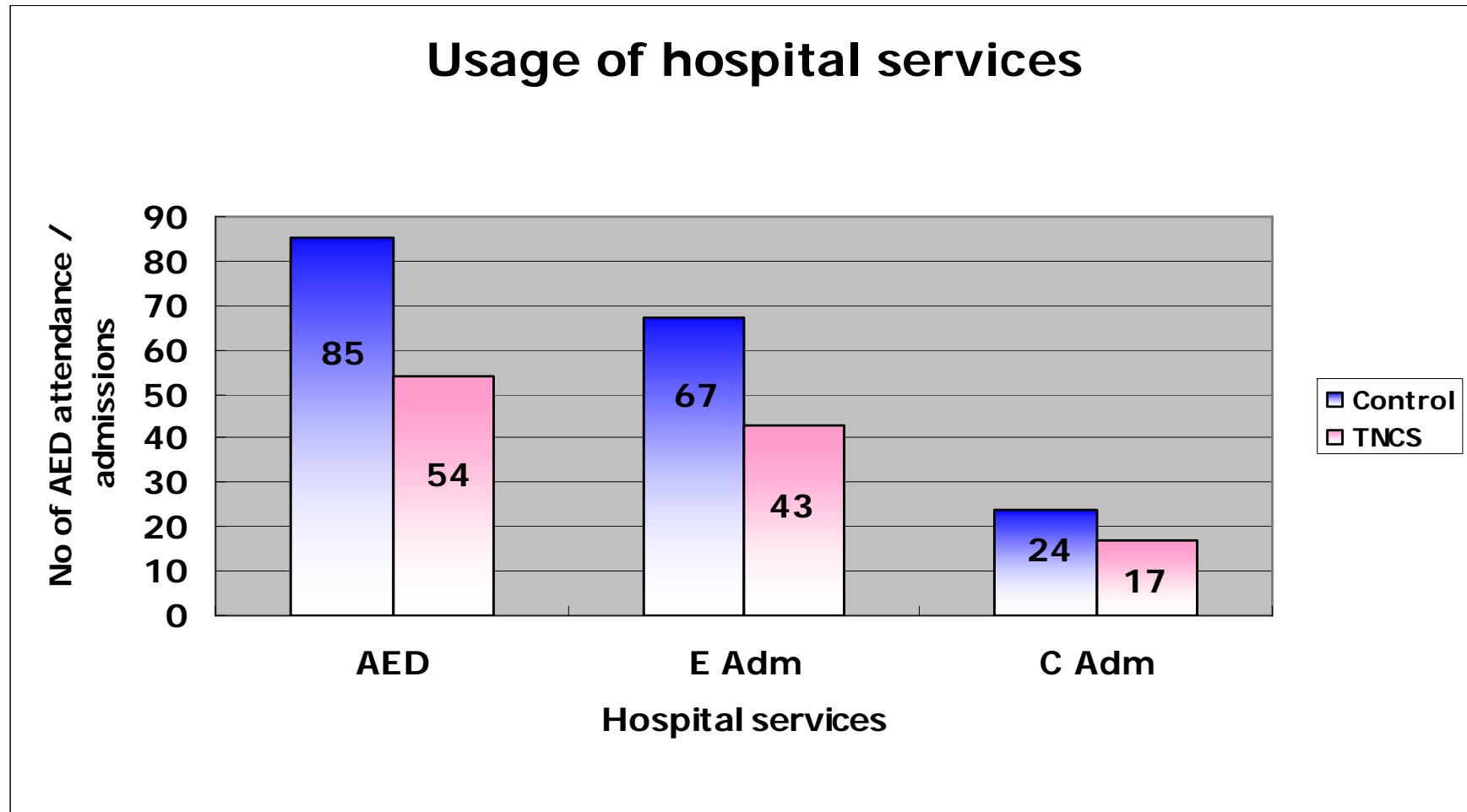
Outcomes

Reduced Multiple Emergency Admissions

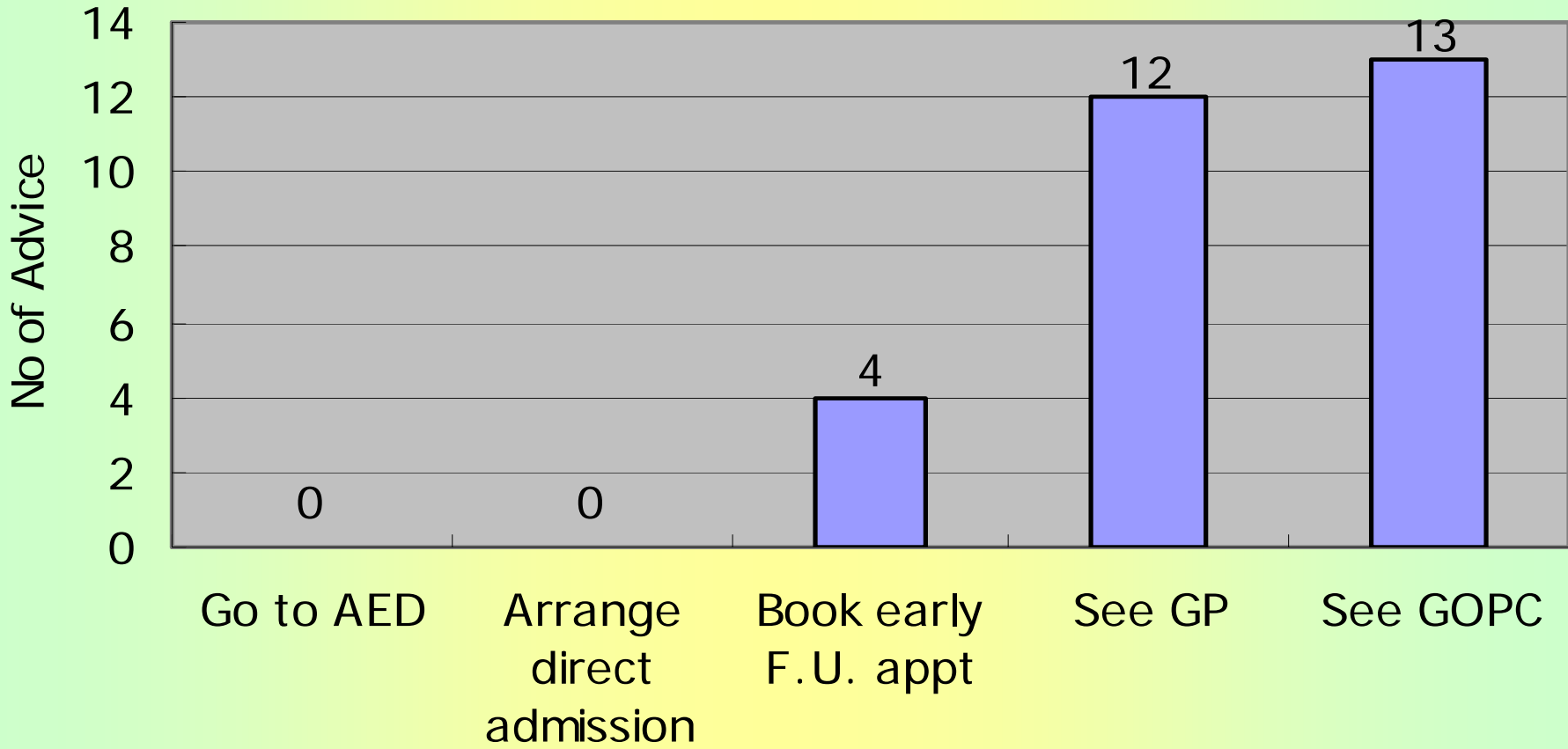


Overall Outcomes

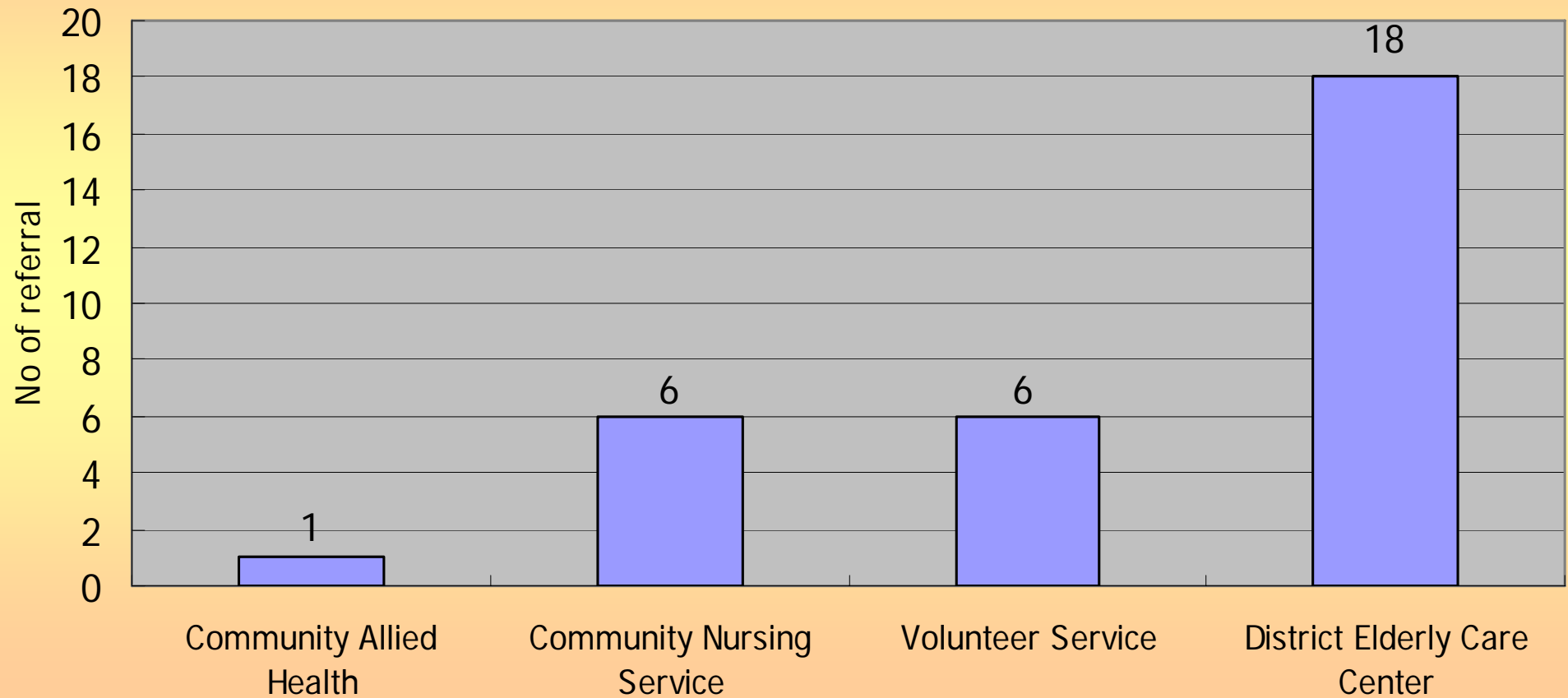
Decreased Usage of Hospital Services



Triage Advice



Referred out to Different Services

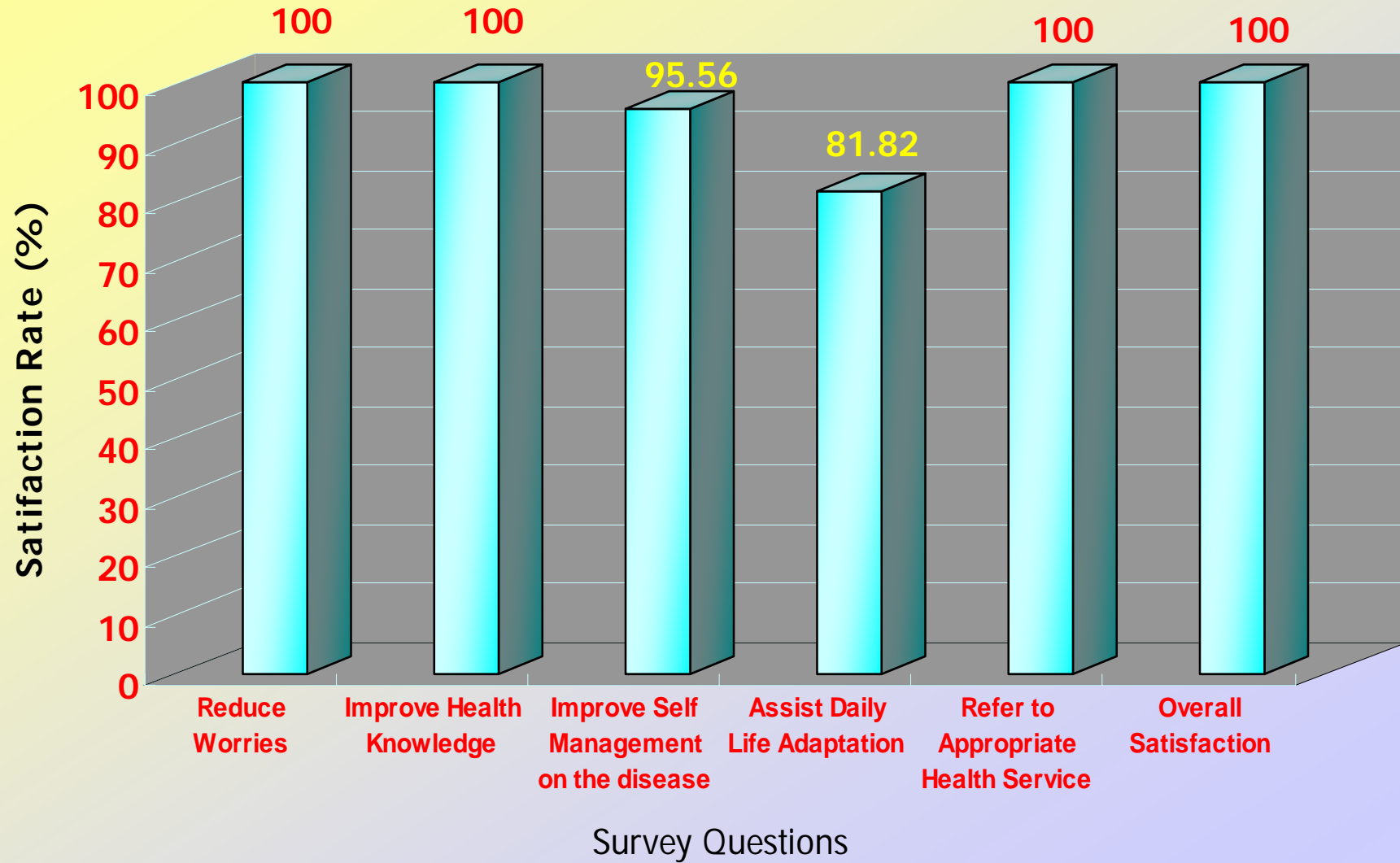


Outcomes

Patient Satisfaction Survey

- Phone survey, conducted by a volunteer
- 46.4 % response rate
- 31% respondents were patients and 69% were relatives/carers

Patient / Carer Satisfaction Survey



Conclusions

TNCS Package can....



- Identify high-risk elders
- Monitor their health needs proactively
- Provide timely interventions
- Bridge service gaps
- Improve service interfacing
- Empower elderly clients and their care-givers for self-management

Conclusions

TNCS Package can



- **Improve Community Health**
- **Reduce Unnecessary Usage of Hospital Services**
- **Save Money**



Team Members

- Dr CP WONG, Director (Community Service), HKEC
- Dr Bernard KONG, Dep CSD/Consultant (CGAT), HKEC
- Joan HO, DOM(IMS2), RHTSK
- Anna NG, SNO(CNS), PYNEH
- Karence TO, WM(CGAT), RHTSK
- See Mun CHEUNG, WM(CNS),PYNEH
- Sabrina HO, NO(CGAT),RHTSK
- Kwai Heung NG, APN(CNS),PYNEH
- Chi Hang FUNG, RN(CGAT),RHTSK
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Collaborators:

- Mr CK LAW, Executive Manager (Community & Allied Health), PYNEH
- Ms Daisy WONG, Cluster Service Co-ordinator (Community & Volunteer Service), HKEC



Acknowledgements

- **Senior Management, HKEC**
 - Dr Loretta Yam, CCE, HKEC
 - Dr H C Ma, HCE, RHTSK
 - Ms Civy Leung, CGMN, HKEC
- **NGO Partners**
 - Methodist Centre for the Seniors, Wan Chai DECC
 - SAGE, Eastern DECC
 - SAGE, Chai Wan DECC
 - St James Settlement, Continuing Care (DECC)
 - TWGHs, Fong Shu Chuen DECC
 - YWCA, Ming Yue DECC
- **HAHO IT Team**



Thank You

