香港大學香港賽馬會防止自殺研究中心
呈交 2007 年 11 月 22 日立法會衛生事務委員會會議
討論精神健康政策的文件

主席、各位議員及其他團體的代表：

本中心對精神健康政策的意見及觀點，其實已經於十月二十五日明報刊登的《全面檢討社會服務資源分配及成效》中闡釋（附件一）。今天我主要談數個重點：

一）別僅看成是醫療問題

我們先處理定義問題。很多人談精神健康政策，就直覺視之爲處理精神病患者的問題，其實不盡然。根據本中心的社區精神健康研究，在一班曾經認真考慮過或曾試過自殺的市民當中，有八成從來未曾向有關方面求助。換言之，我們固然要照顧精神病患者，但同時要考慮公共健康的問題——即是整體市民精神健康，包括提升市民抗逆力、減低市民面對的壓力及鼓勵市民在有需要時求助等預防工作，更值得大家關注。

打個比喻，如果下游河堤氾濫成災，救災的人將所有資源放在下游救災，卻忽視上游的泥土鬆脫、沙石淤積和過度砍伐樹本，不去堵塞問題源頭的話，根本於事無補。

世界衛生組織及很多國家，均倡議要以公共健康的方式來處理精神健康及防止自殺的問題，並提出整體的國家策略，包括美國、英國、澳洲及日本等。本中心曾於二零零五年，向政府呈出香港防止自殺的整體策略建議，但暫時未見政府有何具體回應。本中心現呈交該份建議書供議員參考及跟進（*附件二可向秘書處索取）。

* 立法會秘書處附註 ： 附件二 已上載於立法會網站
http://www.legco.gov.hk/yr07-08/chinese/panels/hs/agenda/hsag1122.htm

二）別僅看成是資源不足問題

很多人會先入爲主的將問題歸因資源不足，但其實我們要先仔細檢視目前服務的成效，與及研究如何透過現有不同服務的配合來提高果效，而非蓋棺論定的說要增加資源。尤其目前政府資源充裕，以一次過撥款增加部份服務資源，對政府而言並不困難，但若這僅爲回應社會輿論而貿然向一些未必具成效的地方增加資源，既解決不了問題，並做成浪費，更令缺乏成效的服務存在於制度之內，隱藏了真正的社會問題，亦對既有社會及醫療服務做成壓力。

據世界衛生組織 Mental Health Atlas 2005 所述，香港雖然在比例上較少精神科醫生和臨床心理學家，但在社會工作者及精神科護士的數目上，實在不比美、澳、日和新加坡等地為低。人力資源是否真正的問題癥結呢？抑或是政府對問題認知不足，不能對症下藥，以致藥石亂投，引致資源調配不當？有些精神病患者出現不願覆診的情況，這與精神科醫生人數、處理個案數目、診症時間及藥物使用等有甚麼關係呢？

三）別僅看成是單一部門問題

政府部門分工分明，但處理精神健康政策的問題，根本不可能由單一部門處理。目前涉及醫療、社會服務、家庭及勞工問題的部門分散，如社會福利署、醫院管理局、警方或勞工署等，缺乏綜觀全局的整體願景，對精神健康及防止自殺工作亦欠缺長遠的方向和承擔。政府不同的部門需要充份的協調和互相通報，確保當事人及其家人獲得適切的服務。若只懂割裂地按自己的職權處理當事人單一的問題，往往會忽略整體評估及其家庭的實際需要。

另外，精神病患者康復後，社會對其的跟進服務有沒有做好，包括醫療、社會福利及勞工等，也涉及不同的部門，有必要綜觀處理。

四）別以為用錢便可做到社區聯繫

天水圍慘劇出現後，政府立即宣佈投入 6,000 萬加強精神健康服務，倡議鄰舍守望及聯繫社區，方向是正確的，也值得歡迎。不過，單靠用錢就夠嗎？

世界衛生組織倡導增強社區聯繫（connectedness）的理念，本中心與東區的政府及社區組織主動組織，希望增強各部門對有需要人仕的了解和聯繫。在東區警方指揮官的帶領下，組織該區的非政府及政府組織，加強了社區聯繫，運用地區資源，發揮最大的協同效應；透過警方、社署、醫院及地區團體的網絡，緊密地轉介高危個案，並且確保當事人接受跟進服務。上述的社區聯繫並不涉及額外政府資源，最重要是政府部門和一眾非政府團體的群策群力，目標一致。另外，長洲社區透過組織和聯繫，減少自殺的個案，亦是將社區資源組織起來從而發揮效用的最佳例子

五）別輕視的具體建議

每次類似天水圍慘案發生後，政府都會說作出檢討，甚至成立委員會，總以「特別情況，特別考慮」的態度對待問題，但往往因職能有限或者範圍太窄，根本難

有作爲。若政府今次真的有心解決問題，就必須大刀闊斧，針對的也不是一個部門，而是全面檢視醫療及社會服務資源分配及成效。

所以，我們建議政府要成立一個具有實權及資源調配能力的機構，全面檢討本港目前醫療和社會服務資源及成效，準確掌握香港目前的實際情況，提出最適切的措施，並繼續就本地情況進行成效研究和建立有效的監測系統。
最後，我想強調，建立以人爲本的施政，營造工作與家庭和諧環境，並且對弱勢社群提供適切的援助，建立一個彼此關懷、共融的生活空間，這才是真正提升香港整體精神健康的最終目標。

附件一

全面檢討本港社會服務資源分配及成效

葉兆輝　羅亦華　黃蔚澄　傅景華
香港大學香港賽馬會防止自殺研究中心

我們看到天水圍再次出現家庭倫常的懷疑自殺謀殺慘案，感到十分無奈——無奈的是心裏有着一種聲嘶力竭後的無力感。包括本中心在內的多個團體和學者，在過去數年已經先後透過撰文及發言，道出目前精神健康和社會福利服務制度當中的流弊，並且提出不少切實可行的方案；其中包括本中心 2004 年 4 月 24 日刊明報的《減少倫常慘劇 從地區入手》、2005 年 1 月 27 日刊明報的《發展社區力量 建設仁愛社會》和 2006 年 7 月 7 日刊信報的《強化服務更重要 談三人自殺案》，天水圍家庭服務檢討小組報告也提出了不少建議。可惜的是，誠如勞工及福利局局長張建宗日前所言：「政府仍然做得不足」。我們認爲無論是質還是量，最根本的問題未有改變，也顯示政府針對問題的決心不足。

與過去數宗慘案一樣，案中的事主和家人均正接受醫療及社會服務，並且已由多位社工作出跟進。所以，我們要先仔細檢視目前服務的成效，與及研究如何透過現有不同服務的配合來提高成效，而非蓋棺論定的說成純屬資源不足做到的問題；尤其目前政府資源充裕，以一筆過撥款增加部份服務資源，對政府而言並不困難（走筆至此，政府剛宣佈投入 6000 萬加強精神健康服務），但若這僅爲回應社會輿論而貿然向一些未必具成效的地方增加資源，既解決不了問題，並做成浪費，更令缺乏成效的服務存在於制度之內，隱藏了真正的社會問題，亦對既有社會及醫療服務做成壓力。

據世界衛生組織 Mental Health Atlas 2005 所述，香港雖然在比例上較少精神科醫生和臨床心理學家，但在社會工作者及精神科護士的數目上，實在不比美、澳、日和新加坡等地爲低。人力資源是否真正屬於問題的癥結呢？抑或是政府對家庭問題認知不足，不能對症下藥，以致藥石亂投，引致資源調配不當？雖然這只是其中一種的指標，未必全面反映真相，但仍值得政府正視。

政府不同的部門，例如社會福利署、醫院管理局、警方或勞工署等，又是否有充份的協調和互相通報，確保當事人及其家人獲得適切的服務呢？還是只懂割裂地按自己的職權處理當事人單一的問題，而忽略整體評估及其家庭的需要。

我們可以想像以下模擬處境：醫務社工向病患者查詢家庭況狀，患者直言家人患有精神病，但已接受精神科治療；家中經濟環境很差，但已經申請綜援；家中子女無人照顧，但學校社工已跟進。醫務社工見患者的其他問題已有部門跟進，手頭還有大堆個案，加上資源有限，須知個案具風險，惟有將檔案蓋上。試想想，

假如每個個案均能檔案互通，不同部門的職員能在交換資訊後，再作總體的風險評估，情況會否有所不同？並且可以在社區內找出更多高危的家庭，避免慘案再現？

基於世界衛生組織所倡導增強社區聯繫（connectedness）的理念，本中心與東區的政府及社區組織主動組織，希望增強各部門對有需要人仕的了解和聯繫。在東區警方指揮官的帶領下，組織該區的非政府及政府組織，加強了社區聯繫，運用地區資源，發揮最大的協同效應；透過警方、社署、醫院及地區團體的網絡，緊密地轉介高危個案，並且確保當事人接受跟進服務。上述的社區聯繫並不涉及額外資源，但需要眾團體群策群力，目標一致。另外，長洲社區透過組織和聯繫，減少自殺的個案，亦是將社區資源組織起來從而發揮效用的最佳例子

過去政府所作的局部檢討（如天水圍家庭服務檢討小組），權責範圍根本不足以觸及目前服務制度的根本問題，亦沒有權力和資源跟進及檢討政府如何及是否進一步落實各項建議，更遑論檢討服務成效；結果類似問題依舊，前線專業人員仍然受壓，投入資源或等於亂石投林，對改善問題毫無功用。

目前，香港有關醫療和社會服務的工作分散於不同政府部門，卻缺乏綜觀全局的整體願景，對精神健康及防止自殺工作亦欠缺長遠的方向和承擔，特首的施政報告中亦未有關注精神健康和生活壓力的問題。所以我們建議政府要成立一個具有實權及資源調配能力的機構，全面檢討本港目前醫療和社會服務資源及成效，準確掌握香港目前的實際情況，提出最適切的措施，並繼續就本地情況進行成效研究和建立有效的監測系統。

現時，政府庫房資源充裕，進行上述的工作，更待何時？我們熱切期待政府大手投資基建刺激經濟的同時，貫徹胡錦濤黨總書記倡議的科學發展觀：「第一要義是發展，核心是以人爲本，要求是全協調可持續，方法是統籌兼顧」。政府多談要義「發展」，少談核心「以人爲本」，怎樣協調？如何可持續？並兼顧統籌呢？

政府應該認清問題，同時在實踐上，投於資源改善地區的硬件配套，加上軟件的配合，培育社區互助守望的精神，鞏固地區的網絡，發揮彼此功能，互補不足，重建社區力量，放下「親疏有別」的歧見，鼓勵集思廣益，這才有助新香港人找出新方向。

刊於明報二零零七年十月二十五日

Suicide Prevention Strategies for Hong Kong: A Public Health Approach

Discussion Paper January 2005

by The Hong Kong Jockey Club Centre for Suicide Research and Prevention,
The University of Hong Kong

Foreword

Suicide is a serious public health problem in Hong Kong. About 1,238 people of all ages died by suicide in 2003, reaching a historical high. The suicide rate has been increasing at an alarming pace, from 9.6 deaths per 100,000 in 1981 to 18.2 deaths in 2003. Suicide rate in Hong Kong has exceeded the global average of 15 per 100,000. It is the sixth leading cause of death in the population as a whole, ranked even higher than infectious diseases. More specifically, suicide is the leading cause of death among young people. Suicide rate among older adults in Hong Kong also has a higher rate than that of western countries especially among females.

This discussion paper sets out a suicide prevention strategy in Hong Kong. Recognizing the many factors that put people at risk of suicide and that protect them against it, we believe that only a comprehensive approach can help reducing suicide substantially. Effective actions should therefore be evidence-based and multi-layered. The effectiveness of prevention programs should be evaluated by measurable outcomes. In addition, programs should be adaptive and open for improvement based on the results of evaluation. All these cannot be achieved without the involvement and cooperation of the entire Hong Kong community. In particular, the collaboration of a wide range of organizations, including government policy makers, NGOs, service providers and users, community leaders, industry leaders, professional bodies, academia, and funding bodies, is vital in saving lives from suicide.

We also aim to provide an evolving strategy, which advocates sustainable development on suicide prevention. This paper advocates the formulation of a task force that leads the implementation of the operational plan and lay down schedules for a coordinated community-based suicide prevention strategy. Moreover, partnership and cooperation will be emphasized, building on the many activities within the community that have already contributed to suicide prevention in Hong Kong.

We have made significant progress in understanding suicide and its prevention in Hong Kong for the past two years. It is time to make a knowledge transfer, from research into co-ordinated strategies. This discussion paper aims to extend the current knowledge and promote ongoing discourse within the community. The directions in this document will be open and responsive in light of new discussion and evidence. We could not emphasize more that "suicide is everyone's business." Only when individuals representing every facet of our communities work together to confront this serious public health problem, the tragedies can be effectively alleviated.

Contributions

This discussion paper aims to provide an integrated framework generated from a multidisciplinary approach. Materials are contributed by members of the Centre of the following specialties:

- Public Health
- Epidemiology
- Clinical Psychology
- Psychiatry
- Social Work
- Social Psychology
- Sociology
- Communication
- Statistics

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Chapter 1 – The Public Health Approach

Background

In the past few decades, there were great advances in the theory and practice of public heath strategies for prevention and intervention in behaviour-related mortality and morbidity. Traditionally, suicide was viewed as a mental health issue to be addressed primarily through clinical intervention, especially treatment of depression (Mercy & Rosenberg, 2000). However, it is well known that around two-thirds of all people who committed suicide had not received any specialist psychiatric care in the year before death (Hawton, 1998). Besides, based on rigorous calculations, Lewis, Hawton, and Jones (1997) showed that high-risk clinical medical strategies would have only a modest effect on population suicide rates, even if effective interventions were developed. They suggested that the UK government's target for suicide reduction would be more likely to be achieved using population-based strategies aiming at actively reducing risk among the whole population. Furthermore, all research pointed out that suicide would be the tragic end of interplay among a wide array of factors, including biological/genetic, social/cultural, psychological, and behavioural factors (Maris, 1981). It is thus imperative that multiple avenues should be utilized for suicide prevention and intervention.

In light of these evidences, there has been concerted effort to advocate public health approach to the problem of suicide, which focuses on identifying patterns of suicide and suicidal behaviour in a group or population (Cantor & Baume, 1999; De Leo, 2002; Hammond, 2001; Hawton, 1998; Knox, Conwell, & Caine, 2004; Lewis et al., 1997; Mercy & Rosenberg, 2000; Oast & Zitrin, 1974; Potter, Powell, & Kachur, 1995; Potter, Rosenberg, & Hammond, 1998; Satcher, 1998). Based on this concept, many countries are developing national strategies, which are comprehensive and organized approaches to marshal preventive efforts and their effectiveness are evaluated. The emerging trend is that the public health approach is replacing the traditional medical model in suicide prevention.

The United States, England, Scotland, Australia, New Zealand, Finland, and Norway are among those countries that have developed comprehensive national suicide prevention strategies incorporating public health approach. (See Appendix I for a brief description on these national suicide prevention strategies). National strategies for suicide prevention in these countries shared a number of common elements (U.S. Department of Health and Human Services, 2001). These include

- using educational settings as site of intervention;
- promotion of research on suicide and suicide prevention;
- attempts to change the portrayal of suicidal behaviour and mental illness in the media;
- efforts to increase and improve the detection and treatment of depression and other mental illness;
- an emphasis on reducing the stigma associated with help-seeking behaviours;
- strategies designed to improve access to services;
- promotion of effective preventive efforts with rigorous evaluation; and
- efforts to reduce access to means of suicide

From the experiences of other countries, we understand the importance of incorporating a similar public health approach in preventing suicide in Hong Kong. This discussion paper will summarize the concept of public health approach and the key elements in suicide prevention and effective programme. It then will review those target groups, risk factors, and local preventive services based on the approach. Learning from international experiences and local research findings, a strategic plan with clearly defined goals and objectives will be presented. Evaluation and outcome measures will be highlighted as these are areas that are lacking both locally and internationally. It is in the hope of those who draft this discussion paper that it will stimulate more discussions and bring along the implementation of effective services in the area of suicide prevention.

The Conceptual Framework

Public health approach has been proved effective in dealing with epidemic diseases
(see Box 1 for an illustration).

Box 1: A Successful Example of Public Health Approach on Disease Control

Removing the Handle of Broad Street Pump (Satcher, 1998)

The Broad Street Pump story is pivotal in the history of public health. In 1854, there was a major cholera outbreak in England. Many people were dying from the epidemic, and people were rushed to medical clinics and hospitals throughout the country. Amid the frenzy, Dr. John Snow, took the time to ask each patient a few questions. After talking to hundreds of patients, he determined that they all had one thing in common: they were getting their drinking water from the Broad Street Pump. He then left the hospital, found the pump, studied it carefully, and found the sewage line that was contaminating the water. To prevent people from continuing to drink from the pump, he managed to get the handle removed from the pump. Soon after that, the cholera epidemic ended.

What we are proposing to do for suicide prevention is like removing the handle from the pump. It calls for good surveillance and monitoring, vigorous study on factors leading to the event, delivery of effective intervention, and vigorous assessment of results – like what Dr. Snow pioneered.

Public Health Approach in Suicide Prevention

Early works dealing with suicide adopt a clinical medical approach, which explore the history and health conditions that lead an individual to commit suicide. In contrast, the public health approach focuses on identifying the pattern of suicide and suicidal behaviors of a group or a population. It aims at changing the environment to protect people against diseases and at changing the behaviors that put people at risk of diseases. The public health approach consists of the following four processes (Figure 1).

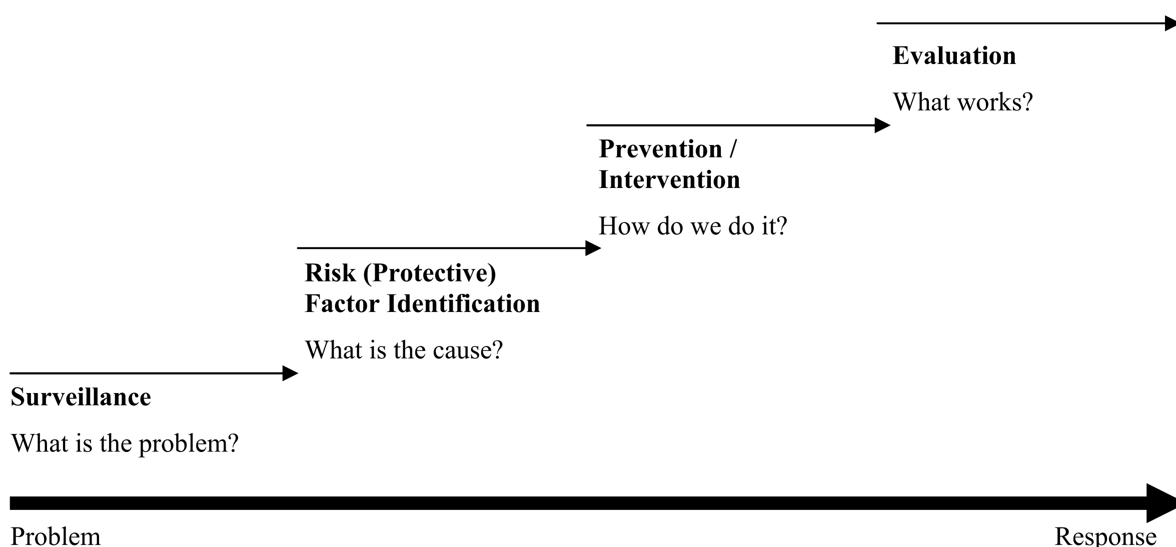


Figure 1: Public health approach (adapted from Mercy & Rosenberg, 2000; Potter et al., 1995; Potter et al., 1998; U.S. Department of Health and Human Services, 2001).

Public health approach can also be applied in suicide prevention:

(1) **Surveillance:** Surveillance is to identify patterns of suicide and the different rates of suicide according to age, geographical location, etc. It may also include the collection of information on the characteristics of individuals who die by suicide. Surveillance helps to identify and define the problem.

(2) **Risk (protective) factor identification:** It is to identify the chain of causes leading to suicide. It includes both risk factors, which may be thought of as leading to or being associated with suicide, and protective factors, which may reduce the likelihood of such incidents, and the interaction between these factors.

(3) **Prevention / Intervention:** Suicide prevention efforts have been classified as *universal, selective* and *indicative* (see Table 1) (Gordon, 1987):

Table 1: Universal, selective, and indicated preventive interventions

	Definition	**Examples**
Universal	Affect everyone in a defined population regardless of their risk for suicide	Public education programmes about the dangers of substance abuse
Selective	Target subgroups at particular risk of suicide, such as family history of mental illness and victims of abuse	Programmes for children of parents with manic depressive illness or victims of physical or sexual abuse
Indicated	For specific individuals who, on examination, have a risk factor or condition that put them in very high risk, e.g., recent suicidal attempt	Crisis management programmes for people with recent suicidal attempt

Altogether, these measures form a spectrum of health care intervention (Dorwart & Ostacher, 1998). Experiences in western countries suggest that more comprehensive programmes, which consist of a broad mixed of intervention strategy, are believed to be of great likelihood of reducing suicide rate (U.S. Department of Health and Human Services, 2001). The three levels of intervention have been adopted by in many of the suicide prevention works worldwide. Appendix II provides a summary of those works.

(4) **Evaluation:** Most interventions are aimed to prevent suicide but their effectiveness has not been evaluated. "Evidence-based" approach can help determine which intervention or programme is best fit and cost-effective.

Comparison of Public Health Approach and Clinical Medical Approach

Table 2: summarized the major differences between the public health approach and clinical medical approach toward the problem of suicide.

Public health approach	**Clinical medical approach**
• Proactive, active in anticipation of future problem	• Reactive to an existing problem
• Both public and individual-based	• Individual-based
• Aim at changing in macro-environment (e.g. society)	• Aim at changing in micro-environment (e.g. personal)
• Identify pattern of suicide	• Identify personal history that lead to suicide
• Clear step-by-step approach	• steps not necessary

An Illustration of Public Health Approach in Suicide Prevention

Public health approach is not just limit to epidemic diseases but can also be applied in solving the problem of suicide. Legislation restricting pack size of paracetamol and salicylates in United Kingdom served as a good example of using public health approach to deal with the problem of suicide (see Box 2 for an illustration).

Box 2: Effects of Legislation Restricting Pack Sizes of Paracetamol and Salicylates on Self-Poisoning in the UK

(Hawton et al., 2001)

In 1998, legislation was introduced to limit pack sizes of paracetamol and salicylates sold over the counter to reduce the incident of deliberate self-poisoning. The legislation specified on limiting 16-32 tablets per sale and adding warnings of the dangers of paracetamol on packets and leaflets.

Between 1996 and 1999, the annual number of deaths from paracetamol poisoning decreased by 21% and the number from salicylates decreased by 48%. Liver transplant rates due to paracetamol poisoning decreased by 66%. The rate of non-fatal self-poisoning with paracetamol was decreased by 11%.

This study provided evidence for the rationale of restricting means for suicide. Both the rate of self-harm and costs of hospitalization due to misuse of the drugs decreased.

Surveillance:

Prior to 1998, paracetamol was available in two forms – loose tablets and blister packs. Attempters who took paracetamol from blister packs overdosed on fewer pills than those who took from loose tablets.

Risk factor identification:

Attempters who overdosed was shown to be impulsive; the loose tablet packaging made it easy for large amount of overdose.

Prevention / intervention:

Legislation to limit pack sizes – a form of universal intervention.

Evaluation:

A decrease in the number of deaths from overdose, liver transplant rate and non-fatal self-poisoning rate between 1996 and 1999.

Chapter 2 - Formulation of Suicide Prevention Strategies

Key Elements to Formulate Suicide Prevention Strategies

Using the UK experience as example, four key principles to formulate suicide prevention strategies should be undertaken (Mehlum, 2004):

1. *Comprehensiveness*

1.1. Coordinated efforts from different sectors of the community

1.2. Three extensive levels of interventions should help improve mental health-being and reduce suicidal risks in the population

2. *Empirical evidence*

2.1. Interventions should be derived from evidence-based conceptual framework

2.2. Ongoing research is necessary to support previous findings

3. *Measurable outcomes*

3.1. Preventive measures must be specific to needs

3.2. Services should be practical and accessible

3.3. Intervention should be open to monitoring

4. *Subject to change*

4.1. Intervention must be subject to continual evaluation; strategies should be changed when necessary

Need for Effective Suicide Prevention Programmes

One of the most challenging concerns to offering suicide prevention programme is the lack of objective evidence on the effectiveness of prevention programmes (Gunnell & Frankel, 1994). To our best knowledge, very few suicide prevention programmes have been rigorously studied and evaluated for their effectiveness in reducing suicide and related risk factors (Knox, Litts, Talcott, Feig, & Caine, 2003; Rihmer, Rutz, & Pihlgren, 1995; Rutz, von Knorring, & Walinder, 1992; Hawton et al., 2001; Toumbourou & Gregg, 2002; Aseltine and DeMartino, 2004). Most interventions that are assumed to prevent suicide, including some that have been widely implemented, have no systematic evaluation or have yet to be evaluated. Besides the problem of lack of reliable outcome measures, the majority of the programs also suffer from low base rate of suicide. For instance, mortality and morbidity are often used to measure the impact of preventive measures and subsequently used to establish priorities for health resource allocation. Suicide prevention, as a result, often ranks at relative low priority area in resource allocation.

To date, only a few programmes over decades of suicide research using suicide mortality as the main outcome measure. These include the USA Air Force suicide prevention programme (Knox et al., 2003), the Gotland study on suicide and depression (Rihme et al., 1995; Rutz et al., 1992), the legislation restricting pack sizes of paracetamol and salicylates and its effect on self poisoning in the UK (Hawton et al., 2001), and the Matsunoyama study in Japan (Takahashi, 2004). Other suicide prevention efforts have been focused largely on school-based programmes, using levels of risk factors for suicide (i.e., adolescent delinquent behaviour and substance use) as the outcome measures. The emphasis of preventive efforts on young people may reflect public attention on the tragedy of youth suicide. However, the need for prevention in other groups such as elderly and middle-aged men appears to be overlooked, not to mention nearly all programmes aimed at these people lack rigorous evaluation. (See Box 2 and Appendix II for the details of these suicide programs).

Policy makers and stakeholders often do not have adequate information on what makes an effective prevention programme. To resolve this problem, more resources should be drained to evaluate the existing suicide prevention programmes and stakeholders and funding bodies should include the evaluation element into their funding criteria and policies.

Criteria for Effective Interventions

In the previous sections, the rationale of suicide prevention strategies using the public health approach was discussed. In order to achieve effective interventions, here we propose four criteria: an empirically established conceptual framework, a clear identification of service users, a carefully planned interventions, and vigorous and on-going evaluations.

1. ***Formulation of a Conceptual Framework***
    - 1.1. Identify the risk and protective factor(s) to the problem
    - 1.2. Pinpoint the need for intervention
    - 1.3. Establish the components of the service model including identification of target individuals, evidence-based interventions, and scientific evaluation

2. ***Identification of Target Individuals***
    - 2.1. Establish clear definition of target individuals
    - 2.2. Develop mechanism to identify appropriate service users
    - 2.3. Proactive recruitment of target individuals

3. ***Intervention***
    - 3.1. Formulate interventions/programs based on solid conceptual framework
    - 3.2. Timely implementation of interventions
    - 3.3. Programmes focused on mitigating risk factors and enhancing protective factors for specific target groups (For indicated programmes, intervention should target at reducing imminent suicidality)
    - 3.4. Continuity of care

4. ***Evaluation***
    - 4.1. Identify measurable outcomes and evaluate programme effectiveness
    - 4.2. Programmes subjected to change based on effectiveness

Chapter 3 – Roadmap to Suicide Prevention in Hong Kong (I): Surveillance, Risk Factors, and Present Services

Following the discussion on the formulation of suicide prevention strategies, the following three sections aim to provide a roadmap to suicide prevention in Hong Kong. This section is a brief summary of all those identified target groups based on the surveillance studies conducted by the HKJC Centre for Suicide Research and Prevention as well as others (for details, please refer to Appendix III). Probable risk (protective) factors and programmes based on public health approach are highlighted. Whether these measures have been evaluated will also be mentioned.

Present suicide prevention services in Hong Kong mostly use a clinical medical approach. These services are provided by the NGOs and HKSAR Government. NGO services include Suicide Crisis Intervention Programs (by Samaritan staff and volunteers); Family Crisis Support Service (Caritas); Hotlines (by various NGOs). The government provides services through the Hospital Authority (A&E Department; Psychiatric services); Social Services setting (Family Services, Crisis Intervention, Hotlines); Department of Health; and School setting (Counselling). While only very few of these programmes have outcome evaluation, most of them don't.

Table 3 gives a short summary of those suicide prevention services that are based on the public health approach. It shows that there are gaps in the services to these vulnerable groups.

Table 3: Suicide prevention services in Hong Kong based on the public health perspective.

	Step 1	Step 2	Step 3	Step 4
	Surveillance	**Risk factors identification**	**Program (based on public health approach)**	**Evaluation**
1.	Middle aged men, unemployed, with financial debts	31% of suicidal deaths had financial problem	• Healthy budgeting	Services are being evaluated
2.	Individuals with mental illness, e.g., major depression	33% of suicidal deaths were diagnosed with psychiatric illness.	?	?
3.	Individual with severe chronic illness, & disability	38.7% of suicide deaths had chronic medical problems.	?	?
4.	Elderly with depression, chronic mental illness, and who were living alone	Depression, chronic mental illness, chronic physical illness, chronic pain, living alone	• volunteer visit programme • Opportunities for the elderly project	?
5.	Married women with decreased marital satisfaction		?	?
6.	Single, divorced and widower (comparing to married ones)	Married group had lowest suicide rate among all other groups.	?	?
7.	School dropouts	A higher percentage of them had lifetime suicidal ideation were related to suicidal behavior.	• EPS, EASY, UAP, YSS, Outreaching social work, Youth line* • YSESS, YWETS, YPET #	Some programmes are being evaluated; Some unknown.

8.	Youth with multiple behavioral problems	Depression / unhappy family / poor self-rated health / early sexual activities	• EPS, EASY, UAP, YSS, Outreaching social work, Youth line * • Project Snowball • SGP, SGT [α]	Some programmes are being evaluated; Some unknown.
9.	Victims of domestic violence	Family disputes / marital disharmony / domestic violence are among the factors contributing to suicide.	?	?
10.	Pathological gamblers	Among suicide with debt, 34% were related to gambling as the major cause.	• Services for pathological gamblers	Services are being evaluated
11.	Substance abusers	Drug and alcohol abusers had increased levels of suicidality.	• Project Snowball	?
12.	Survivors (relatives to suicide completers)	Suicidal history within family	?	?
13.	CSSA recipients	15.7% of suicide deaths were receiving CSSA.	?	?

* EPS = Educational Psychologist Scheme, EASY = Early Assessment of Schizophrenic Youth, UAP = Understanding the Adolescents Project, YSS = Youth Support Scheme.

YSESS = Youth Self-Employment Support Scheme, YWETS = Youth Work Experience & Training Scheme, YPET = Youth Pre-Employment Training

[α] SGP = Student Guidance Personnel, SGT = Student Guidance Team

Chapter 4 – Roadmap to Suicide Prevention in Hong Kong (II): Goals and Objectives

Extensive and concerted efforts to prevent suicide are mandatory, as suicide is a multi-factor problem. It is necessary to delineate the roles of each sector, identify service gap, stimulate new and innovative modes of service, and set up clear guidelines for intervention and evaluation of program effectiveness. Learning from the international experiences in suicide prevention, eight goals are identified to formulate a comprehensive suicide prevention strategy in Hong Kong. These goals can be achieved by public education, identification of service users, crisis and treatment interventions, and continual research.

Public Education

Goal 1
To raise awareness of suicide prevention in the general population

Rationale

Research shows that increased awareness about suicide and mental illnesses, together with reducing their misunderstandings, will positively affect knowledge, beliefs, and behaviors (Satcher, 1998). Suicide rates reflect the mental well-being of the community as a whole. For instance, mental health illness, including depression, is one of the strongest risk factors of suicide (Aseltine & Demartino, 2004). Moreover, enhancing protective factors (i.e. help-seeking) and reducing risk factors (i.e. stigma) have shown to lower suicide rates.

Local evidence

The Hong Kong public's awareness that suicide is a preventable public health problem was found to be unsatisfactory in a recent community-based survey. About 23% of the general population thought that suicide cannot be prevented (Prevalence Study, 2004). Nonetheless, suicide is a preventable outcome. Local findings have suggested that help seeking can reduce suicide risk despite the presence of debt problem (Tung Wah Healthy Budgeting, 2003). Furthermore, 31% of people who committed suicide explicitly communicated their intention to die to people they know (Prevalence Study, 2004). It suggests opportunities for preventing suicide.

Objectives

1.1 Reduce the misunderstanding about suicide.

- Promote the fact that mental illness is treatable and the treatments are effective.
- Incorporate suicide awareness and prevention messages into employee assistance programmes among large employers such as the government.

1.2 Promote psychological well-being across Hong Kong.

- Develop school health curricula to ensure that mental well-being is appropriately addressed.

1.3 Increase awareness of early signs and symptoms of mental illnesses, depression in particular.

- Implement and evaluate evidence-based approaches to improve mental health in different kinds of settings, and among individuals of all ages.
- Establish close partnerships in mental health promotion and suicide prevention across sectors including health, education, media, welfare, justice, drug and alcohol, and recreation.
- Disseminate information about early signs and symptoms of mental illnesses, where to get help, and how to provide support throughout the community.

1.4 Promote help-seeking behavior in respond to mental health problems and other issues.

- Conduct public service announcements on issues relating to traditional notions of masculinity and aging to promote help-seeking behaviour among men and elderly.
- Implement and evaluate evidence-based programmes that aim to increase help seeking in both education and community settings.
- Improve the awareness and accessibility of existing help-line services, and examine the feasibility and possibility of setting up a one-number help-line service in future.

1.5 Reduce the stigma associated with being a consumer of suicide prevention and mental health services.

- Develop public service announcements depicting users of suicide prevention and mental health services as appropriate and responsible.
- Implement and evaluate community education materials that are safe and appropriate to address stigma and discrimination regarding being a user of suicide prevention and mental health services.

Goal 2

To develop community-based suicide prevention programmes targeting a wide range of risk and protective factors

Rationale

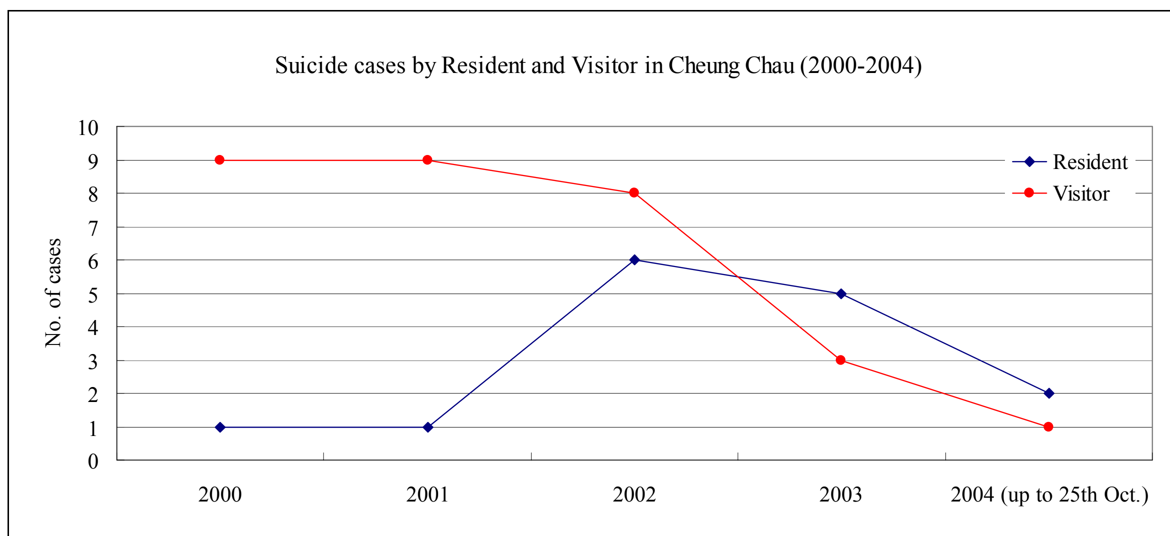
It is useful to incorporate life skills such as coping, problem solving, and help seeking in school curriculum such that adolescents can learn to communicate their difficulties with others (Toumbourou & Gregg, 2002). It is also important to emphasize protective factors such as family support (Beautrais, 1998) in preventing suicide.

Local evidence

According to the prevalence study recently conducted by the CSRP, the presence of depressive and anxiety symptoms increased the risk of past-year suicidal ideation by 6 times. Poor interpersonal relationship increased the risk by 5 times, unemployment increased about 4 times, where debt and financial difficulties increased the risk by 2.5 times. On the other hand, social support and healthy lifestyle reduced the risk of past-year suicide ideation by four and five times, respectively. Reasons for living also reduced the risk by five times.

Community development suicide prevention program in Cheung Chau

A recent experience in Cheung Chau serves as an example of such community-based suicide prevention programmes The holiday houses at Cheung Chau used to be a "hot-spot" for suicide and suicide pacts, in which charcoal-burning was employed as the method of choice. There were on average two suicide-pact cases per year from 2000-2003. To tackle this serious problem, a community development suicide prevention program was initiated by a clinical psychologist living in Cheung Chau. The participants of this program include many facets of the whole community, namely owners of the holiday flats, the management personnel of the renting flats, the police force, medical professionals, members of the rural committee, etc. The program aims to educate the participants (especially those who have first contacts with the tenants) about the warning signs of suicide, and risk and protective factors of suicide. Other activities include round-the-clock hotline and face-to-face services provided by police officers and social workers, refusal of rental to single, two males, two females, and emotionally unstable tenants, proactive checking on rented flats, placing helpline numbers in all holiday flats, and frequent patrols by police. This community-based program appears to be a success in preventing suicide. The number of suicide cases for visitor dropped from nine in 2000 to only one in 2004 (figure).



Objectives

2.1 Students

- Incorporate mental health information and life skill training, such as anxiety management and problem solving skills, in health education curriculum.
- Facilitate early identification of suicidal students by training school staff on signs and symptoms of depression.
- Provide programmes on job skill training, self-esteem training, and financial management for school dropouts and exercise proactive recruitment of participants.

2.2 Middle-aged people

- Promote help seeking as a coping mechanism through the mass media to enhance their level of resilience.

2.3 Employed people

- Staff in managerial level can act as gatekeepers in identifying workers in stress and then provide referrals to Employment Assistance Program (EAP).

2.4 Unemployed people

- Promoting help seeking behaviours and providing early intervention to these individuals is particularly important. For instance, publicizing the availability of mental health services at the Labour Department through poster and video displays and pamphlets. Providing job training for jobless young and middle-aged people may also enhance their level of resilience.

2.5 People with financial debts

- Proactively identify high-risk gamblers and provide them financial management training.
- Promote neighbourhood watch programmes in districts with high suicide rates (i.e. Tuen Mun, Yuen Long, and Wong Tai Sin).

2.6 Elderly

- Many elderly who committed suicide had problems of pain before they died. Providing pain management for the elderly, especially for those living alone, at a variety of settings, such as elderly community centers and clinics.
- Enhance quality of life for elderly as a whole.
- Promote family cohesiveness.

Identification of Service Users

Goal 3
To provide training for gatekeepers and mental health professionals and develop effective programs to facilitate early identification

Rationale

Training programmes for gatekeepers facilitate cross-case comparisons for generalizations of best practice and allow practitioners to use the experiences of past cases to guide their practice in recent cases (Fishman & Neigher, 2003). It is also important to identify existing treatment or intervention and improve their effectiveness. It is because (1) suicidal behaviours may be preventable with appropriate intervention, (2) improving staff attitudes and increasing clinical knowledge are important for suicide prevention, (3) reducing staff anxiety and increasing confidence will assist in their interaction with suicidal individuals, (4) training staff in early identification of suicide risk will improve detecting of people vulnerable to suicide and could subsequently lower suicide rate, and (5) increasing the pool of staff with skills in assessment and management of suicide risk can complement the role of already over-stretched mental health professionals (Simpson, Winstanley, & Bertapelle, 2003).

Local evidence

General practitioners as gatekeepers provide an excellent window of opportunities for suicide prevention. For instance, among the suicide deaths with known contact with GP (about 50%), 7%, 23% and 45% of them had contact with GP within 1 day, 1 week, and 1 month respectively before the final act (Coroner's Court, 2002). Mental health professionals take on an indispensable role in gate keeping. Among those with a history of psychiatric disorders (about 30%), 5%, 25%, 63% of suicide cases had contacted psychiatrist within 1 day, 1 week, and 1 month respectively before the final act (Coroner's Court, 2002). At the same time, providing training to frontline workers should receive more attention. Existing workers may not feel well-equipped to deal with suicidal patients, according to their responses from CSRP training activities.

Objectives

3.1 Provide extensive job training to gatekeepers, including general practitioners, nurses, teachers, clergies, police officers, health and social workers, on ways to identify warning signs of suicidal behaviours, crisis management, and making appropriate referrals.

3.2 Enhance professional training in suicide intervention in the curricula for medical, nursing, and social service students.

3.3 Emphasize suicide intervention as part of the continuing education for these professionals.

3.4 Provide psycho-education for family members of those who are highly suicidal in order to promote support and understanding for the suicidal individuals.

3.5 Develop and implement evidence-based practice guidelines for frontline workers on suicide intervention and management.

Goal 4

To improve service provision for people with high risk of suicide and provide efficacious treatment for suicidal behaviour

Rationale

It has been shown by international and local research that the week following discharge is a very high-risk period for people who have been hospitalized for being suicidal. In particular, evidence indicates that patient with schizophrenia who is shortly after discharge has the higher risk of suicide. Active follow up work and outreach within a week after discharge is very crucial even when the patient fail to attend their outpatient appointment. Continuity of care can be achieved through case management and assertive community treatment (ACT) which has been proven to decrease drop out rates for the severely mentally ill and reduced the rates of hospital admission (Crossland, 2001; Joy, Adams, & Rice, 2001; Marshall, Gray, Lockwood, & Green, 2001; Marshall & Lockwood, 2001; Tyrer, Coid, Simmonds, Joseph, & Marriot, 2001). Reports have also suggested that failure to provide continuity of care contributes to early admission to hospital (Ramon, 1994) and incidents of suicide and homicide (Doh, 1996; Hulten & Wasserman, 1998; Sheppard, 1996).

Local evidence

50% of suicide cases had known previous suicide attempts, and 82% had at least one psychiatric diagnosis (Psychological Autopsy Study, 2004). These indicate the need to provide better service to suicidal individuals. Furthermore, there is evidence suggesting post-discharged clustering of suicides. Among 73 psychiatric patients died from suicide between 1996 and 1999, 80% of them died within 1 year (Yim, Yip, Li et al., 2004).

Objectives

4.1 Establish a standard protocol for screening and treating people with suicidal risks in medical, school, and social service settings.

- Innovative practices are encouraged to foster collaboration between the medical and social sectors in service provision.
- Existing services can be strengthened with the emphasis on intensive case management.

4.2 Establish referral protocols for people with suicidal risks to appropriate services.

- Develop admission criteria and discharge plans and monitor users' progress to determine if the user will continue to benefit from existing service or be better served at a different service.

4.3 Provide timely, safe, and ethical interventions for highly suicidal individuals.

- The A&E department may serve as an early intervention venue that nurses, social workers, and/or volunteers may develop rapport with suicidal individuals and provide them with appropriate referral and follow-up.
- The crisis intervention centre operated under Samaritan Befrienders provides a good example of timely intervention to highly suicidal individuals. Their experience may be transferable to other gate keeping services.

4.4 Ensure continuity of care to individuals at high risk of suicide, especially those who have severe mental illness and frequent users of health care system.

- Apply the local model of Community Psychiatric Nursing Service (CPNS) that offers effective case management services to individuals with schizophrenia (Ng, Chan & MacKenzie, 2000) to suicidal individuals.
- Adopt case management and assertive community treatment (ACT) in local settings, which has been proven to decrease drop out rates for the severely mentally ill and reduce the rates of hospital admission (Crosland, 2001; Joy, Adams, & Rice, 2001; Marshall et al., 2001; Marshall & Lockwood, 2001; Tyrer et al., 2001).

4.5 Provide intensive follow up for suicidal individuals after discharge from hospital.

- Active follow up work and outreach within a week after discharge is very crucial even when the patient fail to attend their outpatient appointment. This also includes patients who drop out of treatment and those who leave the hospital against medical advice, and patients with poor compliance.

4.6 Practice proactive recruitment of service users.

- The Elderly Suicide Prevention Program (ESPP) is a good example of such proactive recruitment of service users. The program adopts the three-tier model, in which elderly in community centres are screened for mental illnesses and participants are actively recruited.
- Actively recruit service users at areas with high suicide rates (i.e. Tuen Mun, Yuen Long, Wong Tai Sin, and Yau Tsim Mong) may reach those who are not receiving any services but at the same time need services most.

Intervention

Goal 5
To reduce the availability and lethality of suicide means

Rationale

Reducing access to means of suicide is proved to be an effective way to prevent suicide (Gunnell & Frankel. 1994). One of the explanations is that a number of suicidal acts are impulsive (Mann, 1998); by limiting the accessibility of lethal means, a self-destructive act may be delayed or prevented. There is evidence showing that method substitution may occur (Marzuk, 1992). Nonetheless, a considerate number of individuals will not go on to use another more available method and suicide can therefore be prevented (Gunnell, Middleton, & Frankel, 2000). Platform screen doors at MTR and KCR stations are useful to prevent accidents as well as intentional suicidal acts; therefore, it is recommended that screen doors or platform gates must be installed at all MTR and KCR stations.

Local evidence

A substantial increase in suicide deaths using charcoal burning, from 8.3% of all suicide in 1998 to 26% in 2003 resulting more than 300 deaths, suggested a new cohort of individuals have been drawn for suicide with limited effect from method substitution. It is particularly disturbing that 80% of charcoal burning cases occurred at home. Limitation of sales of charcoal in supermarket in urban areas may help to thwart this trend. Initial contact have been made with the two supermarkets chain and their response in participating in suicide prevention by limiting sales of charcoal is encouraging. Installation of platform screen door at some of the MTR stations is effective in prevention subway suicide. The cases dropped from 10 in 1999 to 2 in 2003.

Objectives

5.1 Increase public awareness on effective methods of reducing access to suicide means.

- Develop a public information campaign designed to address the effective methods of reducing access to suicide means in home.
- Develop materials to educate family members of individuals at risk in the safe ways of storing medications at home.
- Educate the public about the dangers of overdose of common over-the-counter medications.

5.2 Develop guidelines for regulating pack sizes of potentially lethal medications and safer medication dispensing for individuals at increased suicide risk.

5.3 Encourage erection of barriers on potential jumping points.

- Post helpline number on potential jumping points.

5.4 Incorporate safety warning and helpline number into charcoal and medication packing.

5.5 Institute incentives for discovery of new technologies to prevent suicide

- Advocate installation of carbon monoxide detectors at home and villa.
- Advocate replacing traditional charcoal pits with electric barbeque devices.

Goal 6
To improve media portrayals of suicides, deliberate self-harm behaviour, and mental illness

Rationale

In Switzerland, the launch of guideline reduced the sensational and lengthy reports of suicides in newspaper. The percentage of suicide story on page one declined from 20% to 4% and the proportion of stories with sensational headlines declined from 62% to 25% (Hawton & Williams, 2002; Michel, Frey, Wyss, & Valach, 2000). In Vienna, after the introduction of media guideline, a sharp decrease of 80% of subway suicide was reported. Overall suicide rate was reduced as well (Etzersdorfer & Sonneck, 1998). Research has showed that media portrayals of mental illness might indirectly affect the suicide rate (Hawton, Simkin, Deeks, O'Connor, Keen, Altman, Philo, & Bulstrode, 1999).

Local evidence

The five major local Chinese newspaper in Hong Kong do not comply with the WHO's recommendations on media reporting on suicide. Local study has shown that about 6% of the suicide cases appeared on the front page; about 87% of them were shown with photos or diagrams; and 93% mentioned the suicide methods in the headlines (Au, Yip, Chan, Law, 2004).

Moreover, the prevalence study conducted by the CSRP has found that a significant proportion of the population were dissatisfied, disturbed and affected by the mass media reporting of suicide (Prevalence Study, 2004). About 68% of the respondents were dissatisfied and very dissatisfied with how the media reported the suicide news. Another 37% of the respondents were disturbed, from a little disturbed to very disturbed, by celebrity suicide. Also, 2% of the respondents changed the way they saw suicide, and found it to be more acceptable and thought about suicide after the celebrity's suicide, and 20% of the respondents were influenced by the suicide news reported by the mass media

Objectives

6.1 Develop a media guideline on the responsible and professional reporting. The guideline shall incorporate the international standards and local practices, with the collaboration between public health sector and media professional. Key points of the guideline are listed:

- Present only relevant data and do not print on the front page
- Avoid to publish photographs or suicide notes
- Don't give simplistic reasons and use stereotype
- Reduce sensationalism
- Not to disclose the specific detail of suicide method
- Improve population awareness of the potential benefits of help-seeking

6.2 Promote the guideline as professional ethnics and encourage the media professional to comply with the guideline.

6.3 Establish collaboration between public health sector and media professional on the responsible and professional reporting. Establish an independent body whose member include multidisciplinary professionals, such as journalism, Suicidology, social work and legal to promote and monitor the responsible media reporting of suicide, deliberate self-harm behaviour and mental illness in HK. One option is to extend the functionality of Hong Kong Press Council (strengthen its power) to oversee the issue on responsible suicide reporting.

6.4 Work with local media to develop and disseminate public service announcements delivering a safe and effective message about suicide and its preventions.

6.5 Increase the proportion of responsible and professional reporting in the mass media. It could be done by training and re-training of media professional through conference, workshop or round table, working with professional bodies and journalism school.

Ongoing Research

Goal 7

Generate and advance knowledge in suicide studies through vigorous scientific research and advice the best practice at prevention and intervention level

Rationale

Surveillance and monitoring are basic elements of the public health approach. It not only keeps the policy makers and health care professionals alert about the epidemiology of the problem, but also offers a fundamental platform for vigorous, scientific research. The practice is universally adopted worldwide that enriches the insight not just for local based reference but global comparison and sharing. Via innovative researches, it enhances the knowledge of the epidemiology of the problem and the suicidal behaviours. "Suicide prevention must begin with identifying prevention strategies, followed by research to determine if these strategies work. Whenever we believe we have an effective strategy, we should explore the impact and cost of that strategy in a community setting, and then work to improve the strategy and its delivery. Many suicide prevention programs lack evidence about effectiveness and could use the valuable information gleaned by evaluation to make immediate improvements in the program (Potter, 2001).

Local activities done by the CSRP

The surveillance and monitoring system developed by the CSRP provides the information to formulate tailor-made suicide prevention programs. Psychological autopsy study and prevalence study aim to identify suicide risk and protective factors in both high-risk groups and general population. Deliberate self harm study at the A&E setting aims to identify the gaps in the pathway of service provision. For implications to existing service provision, the need to evaluate hotline services, community programs, services targeting survivors group, etc should be focused.

Objectives

7.1 Develop a timely monitoring and surveillance system to update the epidemiological data.

- Data will be collected systematically and continuously from various related sectors, including the Coroner's Court, Census and Statistics Department, Hospital Authority, and Department of Health.

7.2 Conduct continuous research to provide local evidence for the understanding of the suicidality spectrum.

7.3 Advice the best and effective practice for frontline professionals in suicide prevention and intervention.

Goal 8

To set up an auditing system for the network of suicide related prevention service programs in Hong Kong

Rationale

The aims of the auditing study is to evaluate the system's cost-effectiveness, service capacity and accessibility, referral procedures, screening of service users, and identification of the right targets. For example, we will examine the quality and availability of suicidality screening in primary care settings, accuracy and waiting time for referral, safety and effectiveness of treatment, and continuity of follow-up care. If appropriate, financial audits should be conducted by a certified accountant. The important issues include whether existing services cover large segments of their target populations and whether current practices are ethical with emphasis on the service users' best interest.

Objectives

8.1 Build up an information library on suicide research and services.

8.2 Facilitate collaboration and integration of service.

8.3 Enhance service utilization among non-users and identify right targets to specific services.

8.4 Evaluate effectiveness and assure quality standards of the existing services.

- Six steps to evaluate effectiveness: 1) engage stakeholders; 2) describe the program; 3) focus the evaluation design; 4) gather credible evidence; 5) justify conclusions and 6) ensure use and share lessons learned (MMWR, 1999).
- Conduct follow-up studies on service users.

Chapter 5 – Measurable Outcome Indicators for Interventions

Suicide is a complex phenomenon and it involves a complex interaction among neurological, genetic, psychological, social, cultural, and environmental factors (Donald, Dower, Windsor, Lucke & Raphael, 1997). Together with the fact that suicide is a low base rate phenomenon, reviewers should recognize that reduction in suicide rate should not be the only outcome indicator for the effectiveness of a preventive program (Gunnell & Frankel, 1994; Guo, Scott & Bowker, 2003). Other suicide-related outcomes such as a decrease in suicide attempt rate, improvement in suicide related knowledge, and enhancement in protective factors should also be considered.

1. *Major outcomes for interventions*

1.1 ***Decrease in suicide rate***

Only a handful of preventive programmes has showed an actual reduction in suicide rate. Most of them are interventions in enclosed settings, such as the US Air Force Program (Knox et al., 2003), the Matsunoyama Study (Takahashi, Hirasawa, & Koyama, 1998), and the Gotland Study (Rhimer et al., 1995). Other studies using suicide rate as the outcome measure showed insignificant change in the rate and thus provided little support for using suicide rate as the main target for intervention (Gunnell & Frankel, 1994; Tondo, Hennen, & Baldessarini, 2001). In conclusion, suicide rate is not suggested to be used as a prime indicator of suicide prevention effectiveness. It could be considered as an ultimate goal if many of the proposed risk/protective factors are reduced or enhanced.

1.2 ***Decrease in suicide attempt rate***

Studies showed that about one-third to one-half of adolescents who kill themselves have a history of previous attempt (Hawton & Catalan, 1987; Marttunen, Aro, & Lonngvist, 1993). Other reviews also suggested that it is an acceptable outcome measure (Guo & Harstall, 2002).

2. *Associated outcomes for interventions*

2.1 ***Help seeking behaviour***

2.1.1 Increase in the number of visits or phone calls by service users in particular districts, hotlines, or mental health outpatient centres.

2.1.2 Decrease in dropout rates in outpatient service settings including hospital outpatient, IFSC, and other mental health centres.

2.1.3 Increase in the willingness, and decrease in stigmatization on public attitudes towards seeking mental health professional services including inpatient treatment, and services provided by psychologists, social workers, or psychiatrists.

2.2 ***Increase in mental health literacy***

2.2.1 Increased awareness towards depression, other mental illnesses, facts about suicide, and risk/protective factors of suicide.

2.2.2 Increase in the number of media coverage on mental health information.

2.2.3 Improved professional knowledge and intervention skills for suicidal clients (Mackesy-Amiti, Fendrich, Libby, Goldenberg, & Grossman, 1996; Neimeyer, Fortner, & Melby, 2001).

2.2.4 Decreased stigmatization in mental illnesses and their patients in the community.

2.2.5 Improved capacity for teachers and school social workers in identifying students at risk for suicide (King, Price, Telljohann, & Wahl, 1999).

2.3 ***Coping skill***

2.3.1 Improved coping skill among service users in a variety of settings between the pre- and post-treatment period as part of the evaluation of interventions

2.3.2 Increased in the amount and extent of life skills training in schools (Landman, Irvin, & Halpern, 1999)

2.4 ***Media Reporting***

2.4.1 Decreased contagious effect of suicide due to sensational reporting of specific suicide methods (Stack, 2000).

2.4.2 Decrease in the frequency and intensity of suicide news on news coverage (Stack, 2003).

2.5 ***Availability and accessibility of lethal means***

2.5.1 Decrease in suicide deaths at specific locations, e.g. fencing bridges or railway tracks (Beautrais, 2001; Kerkhof, 2003).

2.5.2 Decrease in both completed and attempted suicides due to drug overdose and the medical costs for hospitalizations, e.g. legislation on a smaller pack size of analgesics (Hawton, 2002).

2.5.3 Reduction in the number of suicide deaths using specific methods or means, e.g. reduced suicide by gas poisoning by detoxification of gases (Kreitman, 1976; Lester, 1990) and gun suicides by restrictive gun legislations (Hawton, Fagg, Simkin, Harris, & Malmberg,1998; Lester, 2000; Lugwig & Cook, 2000; Rich, Young, Fowler, Wagner, & Black, 1990).

3. Outcomes for training programmes

3.1 *Objective and Subjective Knowledge / Skills Test (Simpson et al., 2003)*

Comprising an objective questionnaire to test whether there is knowledge gain among trainees. It can be done in a pre-and-post manner. Trainees are asked to fill out questionnaire on whether they think they have gained the knowledge or skills in those particular areas before and after the training.

3.2 *Subjective and Objective Skills Assessment (Sanci, Day, Coffey, Patton, & Bowes, 2002)*

Trainees' skills can be reviewed by independent raters on whether they have performed the skills on list, and how well the skills are performed.

3.3 *Attitude Self-assessment (Simpson et al., 2003) / Self-confidence (developing by CSRP) / Self-efficacy (Lorenz, Gregory, & Davis, 2000)*

Attitude and self-confidence of trainees will be assessed. Self-efficacy is often studied as a predictor of professional practice behaviours or as an outcome of clinical training. Data suggested that brief self-efficacy assessments could contribute meaningfully to clinical training program evaluation.

3.4 *Sustainability / Behavioural Changes (Sanci et. al, 2002)*

Comparisons of self-assessments and independently rated data after training with that at baseline can provide information on whether the program is successful. However, we cannot rule out the possibilities of the trainees receiving other trainings and subsequently gained knowledge from that between the times.

3.5 *Objective/Subjective Assessment on Suicidal Clients*

Clients' feedback is one of the many ways in assessing the performance of trainees.

Chapter 6 – Priority

In the previous sections, we discuss on the roadmap, based on the public health approach, of suicide prevention for Hong Kong. We also list out eight different goals to achieve the end of reducing suicide and suicide attempt. Experiences and opinions from other countries strongly suggest a comprehensive and multi-faceted strategy would be most likely to be effective in combating suicide. However, with the enormous amount of works and challenges, together with a limited resource, it is necessary to set up priority of works so that both the government and non-government sectors can have a clearly defined aim and assessment criteria on areas that need swift actions. We propose that the following areas should be of higher priority as they are continuation of many current works:

1. **Surveillance and Monitoring** - Track the progress of epidemic and give a timely alarm reporting. The assimilated information will be organized and analysed scientifically and vigorously to reflect the suicide rates of different populations and different districts. It will provide timely, updated vital statistics on suicides.

2. **Knowledge Base** - A registry of suicide research is proposed to assist scientific communication among the local and international communities. This registry will definitely enhance effective communication of information among service providers and provides information in the formulation of policies. The registry will provide information of all existing services, compile training materials and techniques, and disseminate this information to other interested bodies. It will help decision makers in allocating the resource efficiently.

3. **Basic Research –** More basic research is needed to provide local evidence for the understanding of *bio-medical, socio-economical, and psychological* risk and protective factors of suicidality. There are also needs to investigate how a suicide death and attempts affect family members. It will provide a comprehensive and updated list of risk and protective factors of suicide and high risks groups.

4. **Community Study –** We propose to launch a study on the problem of suicidal behaviour with an emphasis on the role of protective factors and cultural factors through longitudinal study of our community sample. It will assist in formulating effective intervention strategies and building resilience in the high-risk groups.

5. **Evaluation of Existing Suicide Prevention Programmes and Others –** Some of the local suicide prevention services Mohave not been evaluated thoroughly. There are strong needs to develop detailed criteria and guidelines to evaluate the effectiveness of both innovative and existing programmes to ensure the quality of suicide prevention works.

6. **Auditing Quality in Service Provision** It is necessary to review service provision in suicide prevention and enhance service utilization. The aim is to evaluate the system's cost-effectiveness, service capacity and accessibility, referral procedures, screening of service users, and identification of the right targets.

7. **Educational Programmes –** CSRP proposes to have the following education programmes as part of the suicide prevention work:
   - Enhance training programmes in the form of certificate and diploma courses.
   - Promote the need to develop and evaluate new training models of suicide intervention.
   - Publish fact sheet, or manuals on suicide, suicide prevention and mental health.
   - Produce radio and television programmes.
   - Promote the need to generate evidence-based and best practice guidelines for service providers.
   - Produce e-learning programs on suicide prevention for the public.
   - A knowledge network for the community through the e-platform as the "suicide prevention online community".

Chapter 7 – Summary

Summary

1. Suicide prevention strategies based on the public health approach were discussed.
2. Based on international experiences, key elements of suicide prevention strategies were discussed.
3. Local research has identified 13 target groups with higher risk of suicide. The related risk factors were listed. A review of services finds that there are gaps in service based on the public health approach. Evaluation on these services is lacking.
4. Goals and objectives of the proposed suicide prevention strategy were mentioned.
5. Outcome measures on programme and training were introduced.
6. Priority on services / research was set.
7. In appendix, countries with national strategies were introduced. There was a review of different suicide prevention programmes. Local research on high-risk groups was also listed.

Open for Discussion

1. Consensus on suicide prevention should be generated amongst government departments, NGOs, service users, community leaders, industry leaders, professional bodies, academia and funding bodies.
2. Formulation of a task force to develop the operational plan and schedule of the suicide prevention strategies.
3. Research and evaluation plan to examine the effectiveness of local suicide prevention strategies.

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Appendix I: Examples of National Suicide Prevention Strategies

1. Australia

Australia's *Living Is For Everyone (LIFE)* was a 4-year strategic framework aimed to promote mental health and resilience across all age groups, with a particular focus on young people (Commonwealth of Australia, 2000). The guiding principles of this strategy included shared responsibilities across the community, professional groups, NGOs, and government sectors; diversity of universal, selective, and indicative approaches; evidence-bases and outcome-focused; incorporating community and carer involvement and expert input; accessible and sustainable services; and evaluation. There were five action areas, including promoting well-being and resilience in the general population, enhancing protective factors and reducing risk factors for suicide, providing services and support for groups at increased risk, providing services for individuals at high risk, and promoting evidence base for suicide prevention and good practice.

2. England

The national strategy for England was intended to provide a coherent approach to suicide prevention, based on four key principles: comprehensiveness, evidence-based support, specificity and practicality, and evaluation. The strategy's six goals included reducing risk in high-risk groups, promoting mental well-being in the general population, reducing the availability and lethality of suicide methods, improving the reporting of suicidal behaviour in the media, promoting research on suicide and suicide prevention, and improving evaluation for effectiveness. Moreover, it has specifically aimed to reduce the death rate from suicide by at least 20% by 2010 (U.K. Department of Health, 2001).

3. Finland

In 1985 Finland was the first country to establish a research-based comprehensive national program for suicide prevention. It included a wide range of approaches to prevention, early intervention, and support across the population and promoted broad involvement and integration of public health and social services in the community (Taylor, Kingdon, & Jenkins, 1997). The project's goal was a 20 per cent reduction in the prevalence of suicide. The final outcome was a 9 per cent reduction over the entire duration of the project (1987-1996) and an 18 per cent reduction from 1990 – the peak year – to 1996 (Kerkhof, 1999).

4. New Zealand

New Zealand's national strategy, *In Our Hands*, has focused only on youth suicide (Beautrais, 1998). It emphasized on the provision of family support and early intervention programmes to families with children at high risk, improvement in mental health education and awareness, treatment and management, restriction of access to means of suicide, social changes including increased social equity and publicity issues about suicide, and improved research and information about suicide issues.

5. Norway

Norway's national plan for suicide prevention (Norwegian Board of Health, 1995) emphasized the needs for an interdisciplinary approach that integrated mental health services with other relevant sectors. It also addressed the need for research, increased training and education for professionals and relevant community members, and improved treatment for suicidal individuals. The importance of evaluating the effectiveness of the national plan was also emphasized.

6. Scotland

Scotland's national strategy *Choose Life* was a comprehensive 10-year plan with the ultimate goal of reducing the suicide rate by 20% by 2013 (Scottish Executive, 2002). The principles that guide the implementation of the strategy included shared responsibilities among public and private sectors, effective leadership, taking a person-centred approach, focusing on priority risk groups, and continuous quality improvement. The seven objectives for action were: providing early prevention and intervention, responding to immediate crisis, providing on-going support and services to those in need, providing support to those who are affected by suicide, ensuring greater public awareness and encouraging people to seek help early, supporting media that reporting of suicide and suicidal behaviour is undertaken sensitively and appropriately, and ensuring evaluation for effectiveness.

7. USA

The strategy emphasized a five-step public health approach: monitoring and surveillance, identifying risk and protective factors, developing and testing interventions, implementing interventions, and evaluating effectiveness (U.S. Department of Health and Human Services, 2001). Examples of the goals for action included promoting awareness that suicide is a public health problem that is preventable, developing broad-based support for suicide prevention, developing and implementing strategies to reduce stigma associated with help seeking behaviours, promoting efforts to reduce access to lethal means, and promoting research on suicide and suicide prevention.

Appendix II : Suicide Prevention Works Worldwide

Public health approach acknowledges the importance of both the high-risk and the population strategies to prevention. In the following, a summary of examples of these three levels of intervention is provided. Some are proved effective and some claim to be effective but a detailed analysis found that their effectiveness are in doubt. The following table provides a quick-and-easy check for their effectiveness based on the criteria of conceptual framework, targets, intervention, and evaluation. It is expected that by presenting examples of studies worldwide, we can gain knowledge of implementing suicide prevention strategies in Hong Kong.

Prevention works	Location	Level	Criteria			
			Conceptual framework	Targets	Interventio n	Evaluation
PACE	Australia	selective	√	√	√	√
Mental health awareness	Australia	universal	√	√	√	tbr
CPNS	HK	indicated	√	√	?	?
ESPP	HK	selective	√	√	√	tbr
Crisis intervention centre	HK	indictaed	√	√	√	tbr
Tele-Check	Italy	selective	√	√	√	√
Matsunoyama Study	Japan	universal	√	√	√	√
School-based prevention programme	New Zealand	universal	√	√	√	tbr
Gotland Study	Sweden	universal	√	√	√	√
US Air Force suicide prevention program	USA	universal	√	√	√	√
PROSPECT	USA	selective	√	√	√	√
WHO – prevention suicides for inmate	Worldwide	selective	√	√	√	partial
Yellow Ribbon	Worldwide	selective	×	×	×	×
Lithium for suicidal patients	Worldwide	indicated	√	√	√	√
CBT	Worldwide	selective	√	√	√	tbr
Restriction of means	Worldwide	universal	√	√	√	partial
Media guideline	Worldwide	universal	√	√	√	partial

tbr = yet to be reported

1. Parenting Adolescents: A Creative Experience (PACE) in Australia

1.1 ***Conceptual framework*** – It aimed to reduce risk factors for suicide among adolescents by empowering parents with group problem solving skills and to assist one another to improve communication skills and relationships with adolescents.

1.2 ***Targets*** – Parents in selected school.

1.3 ***Intervention*** – It is a controlled comparison study. Parents in 14 schools receiving education on parenting are compared with 14 closely matched schools.

1.4 ***Evaluation*** – Students (aged 14 years) were assessed at baseline and 3-month follow-up. Students in intervention schools showed increased maternal care (OR=1.9), reductions in conflicts with parents (OR=0.5), reduced substance use (OR=0.5), and less delinquency (OR=0.2) compared to comparison schools (Toumbourou & Gregg, 2002).

2. Mental Health Awareness.

Promoting help-seeking behaviour and awareness of early signs and symptoms of mental health problems in community (Commonwealth of Australia, 2000).

2.1 ***Conceptual framework*** – People who were willing to seek help and being aware of the early warning signs of mental illness of themselves and others would ask for help; moreover, the state of emotional and social wellbeing in which the individual could cope with the normal stresses of life and achieve his or her potential.

2.2 ***Target*** – General population.

2.3 ***Intervention*** – An organised campaign to facilitate community awareness of factors that would affect health being and quality of life, and hope to empower the community with the skills needed to take control over and improve adverse conditions.

2.4 ***Evaluation*** – Levels of knowledge about help-seeking options in the community, attitudes towards help-seeking behaviour, rate of help-seeking among groups with low rates of help-seeking, level of mental health literacy within the community, availability of information on mental health, and number of media articles or segments conveying positive mental health messages.

3. Community Psychiatric Nursing Services (CPNS) offered by the Hospital Authority (Ng et al., 2000).

3.1 ***Conceptual Framework*** – The presence of psychiatric illness was a risk factor for suicide. Interpersonal interventions provided by trained mental health in patient aftercare may reduce difficulties during rehabilitation such as frustration and hopelessness or even self-harm.

3.2 ***Target*** – Psychiatric patients with the need of nursing care at home or rehabilitation services. Service targets would be identified by the psychiatrist upon discharge or an outpatient consultation session.

3.3 ***Intervention*** – A community psychiatric nurse, the caseworker, would be assigned to follow-up the case actively. The ultimate goal of CPNS was to provide continuous care for patients who were discharged from hospitals and to allow patients to recover in their home environment and the community.

3.4 ***Evaluation*** – The effectiveness of CPNS would be measured by the decrease of suicide death among these patients and the intensiveness and treatment of the service. It is an ongoing service and more evaluation is warranted.

4. Tele Help / Tele-Check in Italy (De Leo, Buono, & Dwyer, 2002; De Leo, Carollo, & Buono, 1995).

4.1 ***Conceptual framework*** – Elderly have high risk of suicide because the prevalence of physical and mental health problems is high among them. Although elderly seldom use hotline services, the design of tele-help and tele-check effectively made the intervention proactive and interactive.

4.2 ***Target*** – Elderly who presumed to need more help, such as those who are disabled, socially isolated, with psychiatric disorder, poor compliance with outpatient treatment, requested admission to public or private social-heath institutions, and with low income. Between 1988 and 1991, 12,135 people 65 years old or over living in the Veneto region of Italy were connected to the “Tele-Help/Tele-Check” service. (De Leo et al., 2002).

4.3 ***Intervention*** – Tele-Help is a portable device that lest users send alarm signals activating a pre-established network of assistance and help. In Tel-Check, trained staff members at the centre contact each client on an average of twice a week to monitor the client’s condition through a short, informal interview and to offer emotional support. The client may also contact the centre at any time for any need.

4.4 ***Evaluation*** – Significantly fewer suicide deaths occurred among the users, despite an assumed overrepresentation of persons at increased risk, when compared to the suicide rate among elderly in the general population (De Leo et al., 1995).

5. General Practitioners in Matsunoyama Town, Japan

Recognition of suicide risk and mental diseases and improvement in referral in Matsunoyama Town, Japan (Takahashi, 2004).

5.1 ***Conceptual framework*** – Takahashi (2004) believed that depression was the most crucial risk factor for elderly suicide at Matsunoyama Town. Early identification of depression of the elderly with proper treatment would reduce elderly suicide rates in that particular town.

5.2 ***Target*** – Elderly person 65 years of age and older and who were living at home who visited the General Practitioners.

5.3 ***Intervention*** – Proper assessment; use of antidepressants, mild tranquilizer and/or hypnotics; and follow-up visits.

5.4 ***Evaluation*** – Longitudinal follow-up for 4 months and 10 months which measured severity of depression and suicide rates among this group. Takahashi reported that from 1970 to 1986, the suicide rates for elderly in Matsunoyama Town was 436.6 per 100,000. Since this programme was lunched, the suicide rate dropped to 107.3 per 100,000. Comparison of the data shows that the period from 1987 to 2000 had a lower suicide rate among this group (chi-square test $p<.001$).

6. School Based Prevention Programme (Beautrais, 1998)

To enhance coping skills and self-esteem of adolescents – New Zealand.

6.1 ***Conceptual framework*** – Protective factors include problem-solving ability, decent contact with caring adults, a sense of connection with schools, etc. could moderate suicidal behaviours of young people.

6.2 ***Target*** – Students who were at schools in NZ.

6.3 ***Intervention*** – School curriculum which would promote protective factors; gatekeeper training for teachers and other adults; and training for better identification and referral of vulnerable young people.

6.4 ***Evaluation*** – School personnel's knowledge, attitudes, intervention skills, preparation for coping with a crisis, and general satisfaction with training; promising results from on going research (Beautrais, 1998).

7. Gotland Study on Suicide and Depression (Rihmer et al., 1995; Rutz et al., 1992).

7.1 ***Conceptual framework*** – Early recognition and adequate treatment of depression was effective in suicide prevention. Training general practitioner on the diagnosis and treatment of depression can reduce suicide.

7.2 ***Target*** – All general practitioners in Gotland, Sweden.

7.3 ***Intervention*** – 2-day programmes were given in 1983 and 1984.

7.4 ***Evaluation*** – In 1985, the rate of suicide and inpatient care for depression decreased significantly, as well as the frequency of sick leave for depression. In 1988, 4 years after the educational programme ended, the suicide rate and inpatient care for depression returned to almost the rates at baseline

8. US Air Force suicide prevention programme (2001).

8.1 ***Conceptual framework*** – Stigma surrounding psychosocial or mental health problems was a major barrier deterring US Air Force personnel. Removal of stigma for help-seeking behaviour was therefore necessary. The framework also addressed the need for enhancing the detection and treatment of those at increased risk of suicide.

8.2 ***Target*** – All active Air Force personnel, their families, and communities, a total of 5,260,292 people between 1990 and 2002.

8.3 ***Intervention*** – Eleven initiatives aiming at strengthening social support, promoting development of coping skills, and changing policies and norms to encourage effective help-seeking behaviours, and improving surveillance.

8.4 ***Evaluation*** – Analysis of cohorts before (1990-1996) and after (1997-2002) the intervention showed a sustained decline in the rate of suicide and other related adverse outcomes. Suicide rate declined from 15.8 per 100,000 in 1995 to about 6.0 per 100,000 in 2002. There was a 33% relative risk reduction of suicide; risk reduction for accidental death (18%), homicide (51%), severe family violence (54%), and moderate family violence (30%) were also significant.

9. Prevention of Suicide in Primary Care Elderly (PROSPECT) (Bruce et al. 2004)**.**

9.1 ***Conceptual framework*** – Depression was the principle risk factor for suicide in late life and suicidal ideation for suicide's clinical precursor. Late-life depression elderly with suicidal ideation should be treated with proper diagnosis and adequate treatments.

9.2 ***Target*** – 60–74 years old elderly with depression and suicidal ideation.

9.3 ***Intervention*** – Cognitive therapy tailored for the elderly with care management compared with usual treatment (antidepressants only).

9.4 ***Evaluation*** – Severity of suicidal ideation and depression. Rates of suicidal ideation declined faster in intervention patients compared with usual care patients at 4 months after intervention. Replication with other high-risk groups would be needed.

10. WHO – preventing suicide for inmates (WHO, 2000).

10.1 ***Conceptual framework*** – Correctional settings differ with respect to inmate populations and local conditions: short-term detainees, pre-trial offenders, sentenced prisoners, harsh sentencing practices, overcrowding, sanitation, broad socio-cultural conditions, the prevalence of HIV/AIDS, and access to basic health or mental health services. Each of these factors might influence suicide rates in different ways.

10.2 ***Target*** – Male (20-25), unmarried, first-time offenders, and substance users.

10.3 ***Intervention*** – Training correctional staff to familiarize with risk factors of suicide, and implementation of formal suicide screening of newly admitted inmates. Screenings would be done again if circumstances or conditions change.

10.4 ***Evaluation*** – Improvement of suicide detection and monitoring; increased collaboration of community mental health programmes.

11. Yellow Ribbon International Suicide Prevention Programme (Yellow Ribbon, 1994).

11.1 ***Conceptual framework*** – Youth were often reluctant to talk about their difficulties with adults. The conceptual framework of this programme was based on a peer support model with its aim to strengthen young people by arming them with a communication tool and encourage youth to talk about the difficulties they may be facing and to seek positive solutions. Reviewers have suggested that the programme did not have an appropriate and explicit theoretical or research base (Bennett, Coggan, & Brewin, 2003).

11.2 ***Target*** – Young people and there is no specific mechanism in identifying the appropriate service users.

11.3 ***Intervention*** – The programme aimed in promoting and raising awareness; outreaching; educating people to become gatekeeper; responding effectively in suicidal cases; and offering support to

survivors. However, there was no data showing how to mitigate risk factors and enhance protective factors except by providing an accepting environment for those suicidal people and survivors.

11.4 ***Evaluation*** – The programme claims that they received 42,000 letters asking for help and saved 2,500 lives. There was no indication on how these lives were saved. The programme and programme outcomes were not vigorously evaluated by independent evaluator (Bennett et al., 2003). There was no explicit outcome indicator to measure the effectiveness of the programme. Although there was evidence showed that peer-group intervention model in school setting was problematic (Dishion, McCord, & Poulin, 1999), there was no indication that the programme was amended based on the effectiveness of the programme.

12. Lithium for Suicidal Patients (a meta-analysis by Tondo et al., 2001).

12.1 ***Conceptual framework*** **–** Lithium worked for patients with major affective disorders. Consequently, lithium would reduce severity of major affective disorders and reduces suicidal risks.

12.2 ***Target*** –Patients with major affective disorders (MAD), bipolar disorders (BPD), and Schizoaffective disorder (SzAff).

12.3 ***Intervention*** – Pharmacotherapy.

12.4 ***Evaluation*** **–** Among 5647 patients who suffered from MAD, BPD, SzAff in 22 studies, suicide was 82% less frequent during lithium-treatment.

13. Cognitive-Behavioural Therapy (CBT) for Suicidal Patients (Rudd, Joiner, & Rajab, 2001).

13.1 ***Conceptual framework*** – Suicidal patients had a suicidal belief system, which might be fuelled by their maladaptive cognitive system that would affect their hopefulness level, and which might lead to suicidal behaviours.

13.2 ***Target*** – Adult-population with suicidality.

13.3 ***Intervention*** – CBT would include group and individual interventions with thorough assessment, cognitive restructuring, and practical skills training.

13.4 ***Evaluation*** – Improved practical skills levels, hopefulness, coping skills, and suicidal risks. Patients who received CBT reduced suicidal risks and improvements in coping skills.

14. Restriction of means

Implemented in various locations worldwide.

14.1 ***Conceptual framework*** – The restriction of lethal means was an important component of suicide reduction efforts as well as a contribution to public health in general. It was intended to limit the availability or accessibility of means of suicide and/or to reduce lethality, so that the suicidal acts of the individuals could be delayed, and the chance for providing crisis intervention could be increased. However, there is still considerable discussion on the substitution theory which has yet to be proved.

14.2 ***Target*** – General population.

14.3 ***Intervention*** – Limiting the availability or accessibility of means to suicide and/or reducing lethality of certain means.

14.4 ***Evaluation*** – Kreitman's (1976) study of lethal means restriction showed a reduction in suicide by changing the nature of oven gas in Britain. Lester (1990) showed a decrease in suicide in Switzerland with a detoxification of gas. Loftin, McDowall, Wiersema, and Cottey (1991) demonstrated suicide decreased by 23% in the District of Columbia following restrictive gun registration measures passed in 1976. They also concluded that legal restriction of access to guns in Washington, D.C. had prevented an average of 46 deaths (homicides and suicides) annually between 1968 and 1987. A study by Hawton et al. (1998) showed a reduction in firearm suicide rates among farmers in Great Britain following national legislation in 1989 on firearm ownership, registration, and storage. There was also a reduction in the overall farming suicide rate in their study period from 1981 to 1993. Beautrais (2001) studied the effect of the removal of safety barriers on a bridge. She found that the number and rate of suicidal jumps increased significantly in the four years following the removal compared with the four years prior. She concluded that there should be safety barriers at known jumping sites, and such barriers should not be removed.

15. Media Guidelines

15.1 ***Conceptual framework*** – It was suggested that under certain circumstances, contact with, or knowledge of, an individual who had recently died by suicide, might precipitate suicidal behaviour in vulnerable individuals.

15.2 ***Target*** – Media industries and the general population.

15.3 ***Intervention*** – Media guidelines.

15.4 ***Evaluation*** – In Vienna, 1984-1987, there was extensive and dramatic media coverage on subway suicides. A reduction of 80% of railway suicide was found in less than half a year since the media campaign was launched in 1987. The total suicides in Vienna declined also (Etzersdorfer & Sonneck, 1998). The way in which suicide was reported appears to be particularly significant. Cantor and Baume (1999) found that found that rates of male suicide increased following reports of suicide, with actual male suicides peaking on the third day after the story appeared in Australia. There is also evidence that the way suicide is reported can reduce suicide rates. Reporting that positions suicide as a tragic waste and an avoidable loss, and focuses on the devastating impact of the act on others, has been linked to reduced rates of suicide. Martin & Ko (1997) compared reporting of Kurt Cobain's suicide in a range of media and found that rates of suicide among 15 - 24 year olds fell during the month following reporting of Cobain's death. Significantly, media coverage of Cobain's death was highly critical of his decision to suicide.

Appendix III: Identified Local Target Groups

Based on the research findings of the studies conducted by the HKJC Centre for Suicide Research and Prevention, HKU, various target groups who require prioritised suicide prevention interventions are identified. Thirteen target groups are identified and their characteristics are documented below. In addition, specific regions are found to have with high prevalence rate. For more information about these target groups, please refer to the Interim Report, June 2004, prepared by the Centre.

1. Middle aged men, unemployed, with financial debts (Report 4 in Interim)

1.1. Out of all suicide deaths in 2002, about 31% had financial problems and majority clustered at the middle age (40-59).

1.2. It reports that about 88% of those with financial problem also had evidence of debts that brought them to financial unmanageable or severely unmanageable level.

1.3. Comparing with the 7.6% unemployment in the general population, the suicide deceased group presented a serious unemployment problem (56%) and so as the case amongst the deceased with debt engagement (46%).

2. Individuals with mental illness e.g. individuals with severe depression (Reports 2 & 4)

2.1 In 2002, about 33% of the deceased had diagnosed with psychiatric illness, where mood and psychotic disorder were the most prevalent.

2.2 Yim, Yip, Li, Dunn, Yeung, and Miao (2004) in a local study on psychiatric patients noted that schizophrenia and related psychotic disorders were the most common principal diagnosis among the studied cases.

2.3 The situation was prevailing among female deaths accounting for 43% of the total death, whereas only about 27% of male deaths suffered from psychiatric illness.

2.4 In the deceased group of our psychological autopsy (PA) study, about 82% of the individuals experienced *at least one* mental disorder assessed by the Structural Clinical Interview Schedule for DSM-IV-TR (SCID) Axis I Disorders (First, Gibbon, Spitzer, & Williams, 2002).

2.5 From the same study, the most prevalence mode of therapy received was psychotherapy (34.2%), followed by family service (26.3%), and drug therapy (21.1%).

2.6 A study on suicide after discharge from psychiatric inpatients care by Yim et al. (2004) reported a significantly high risk of suicide following hospital discharge in Chinese where nearly 80% of them died within one year of discharge. The most common principal diagnosis among the cases was schizophrenia and related psychotic disorders.

3. Individuals with severe chronic illness, disability (Reports 2 & 4)

3.1 About 38.7% of total suicide deaths in 2002 had medical problems with 39.1% of total male and 38.1% of total female deaths had medical problems.

3.2 From the psychological autopsy study, 21.7% of the deceased had indicated a long-term physical illness or disability at the time of death.

4 Elderly with depression, chronic medical illness, and living alone (Report 4)

4.1 About 30% of the suicide death aged 60 and above (elderly) lived alone; this prevalence was substantially higher than the general suicide deaths by 14.4%.

4.2 Even though there was about one fifth of elderly aged 60 and above with psychiatric illness reported, suffering from medical problem was highly prevalent amongst this age group and accounted for 82.5% of the total.

4.3 Yip, Law, and Law (2003) in a prevalence study of suicide ideation among elderly in HKSAR showed that poor physical health and mental health especially in the form of depression were predictors of suicidal ideation in the elderly population.

5 Married women with decreased satisfaction towards marriage

5.1 Knowledge, attitude and practice *(KAP) study in 2001 conducted by the FPAHK, ongoing research.*

6 Higher rate among the single, divorced and widowed in comparing to the married ones

6.1 Yip (1998) found that married group had a lower suicide rate than that of the single group among the adults for both man and women but marriage seems to be more beneficial to men.

6.2 The beneficial effect of marriage seems to be less evident among the older adults (Yip, Chi, & Yu, 1998).

6.3 He argued Hong Kong women might not have been benefited in marriage as much as men where responsibility and workload in married life rather than lower social status were the likely reasons for the relative high female suicide rate.

6.4 According to the findings from knowledge, attitude, and practice (KAP) survey 2001 by the Family Planning Association of Hong Kong, suicide ideation or attempts during the past 12 months was significantly associated with decreasing level of marital satisfaction.

7 School dropouts (Report 6)

7.1 Young people not studying full-time have a higher percentage of lifetime suicidal ideation.

8 Young people with multiple behavioural problems (such as drug use, early sexual behaviour, smoking) (Reports 5 & 8)

8.1 Suicide was the leading cause of death in Hong Kong for the youth aged 15-24.

8.2 Youth aged 15-24 was the main contributors of deliberate self-harm inpatient via Accident and Emergency Department admission carrying the average DSH rate of 70.0 per 100,000, which was the highest amongst all ages.

8.3 In a study of suicidal ideation and behaviour among high school students, a range of risk factors had been identified associated with increasing levels of suicidality.

8.4 Compared to the non-suicidal group, those with suicide ideation or attempts were likely to have depression symptoms, had an unhappy family/average family life, and occasionally had alcoholic drink. Attempters were more likely to be of a younger age, had poor self-rated health, used inhalants, and had an early onset of sexual activity than those with suicide ideation merely.

9 Individuals who experience domestic violence

9.1 Zhang (2003) on a report of the national survey on domestic violence against women in Beijing figured out women would murder the abuser and commit suicide instead of using legal aid to protect them.

9.2 A note from Department of Health in Hong Kong (2003) figured out that family disputes or events including marital disharmony and domestic violence is one of factors contributing to suicide.

9.3 During the 10-year study period of homicide-suicide in a Hong Kong, it noted that most of events were motivated by separation or termination of marital or sexual relation (39%), economic reasons (25%) and other domestic disputes (20%) (Chan, Beh, & Broadhurst, 2003).

9.4 By comparing with female psychiatric suicides, it noted that males were more appealing to have domestic violence record reported about 11% of the total suffering which was three times higher than that of females (Preliminary findings of psychiatric suicides in HKSAR).

10 Pathological gamblers (Reports 2 & 4)

10.1 Amongst those reported suicides with debt engagement in 2002, gambling activities involvement ranked on the top as the main cause of their debt problem and contributed about 34% of the total; business difficulties/failure (11%) and over consumption (8%) were the other two leading factors causing the deceased into debt trap.

10.2 Of those in the PA deceased group who had financial problems, 27.1% had poor financial management and 25% of the deceased cases exhibited a gambling problem that had led to the unmanageable debts.

11 Substance abusers (Report 8)

11.1 Using inhalants/alcohol is one of special attention should be paid to adolescents as it might carry a strong and independent association with increasing levels of suicidality.

11.2 In our study, drug use other than inhalants failed to differentiate attempters from students with no suicidal behaviours. This might due to the fact of drug using in Hong Kong not as prevalent as use of inhalants among students.

12 Survivors (individuals with family members who committed suicide) (Report 2)

12.1 Compared with the control group in PA study, the deceased group exhibited more previous suicide attempts and suicidal history in family.

13 Individuals receiving CSSA (Report 4)

13.1 About 15.7% of suicide deaths received public assistance in 2002 where the proportion was over representative amongst the individuals receiving CSSA in the community (around 4 times).

14 Districts with high prevalence of the above high risk groups (Reports 1 & 5)

14.1 For example, school dropouts, youth substance abusers in Tuen Mun, depressed elderly/ living alone elderly in Yuen Long, depressed middle-aged men and women in Wong Tai Sin, Yau Tsim Mong.

14.2 Standardized Mortality Ratio (SMR) reveals the suicide pattern amongst districts in HKSAR keeps change over the past several years. Different from the GIS presented in 1998-2000 only Wong Tai Sin reported a higher suicide rate than the expected in 2000-2002 whereas Sai Kung, Sham Shui Po, and Tai Po had a lower suicide rate.

14.3 The districts Yau Tsim Mong, Kwai Tsing, Shatin, Tsuen Wan, Tuen Mun, and Sai Kung had more DSH patients than expected over the past 3 years (2001-2003). Meanwhile, those older districts like Central and Western, Eastern, Kowloon City, Kwun Tong and Sham Shui Po had relatively fewer DSH cases than had been anticipated. The DSH pattern varied greatly by their age group.