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EVALUATION OF THE ASTHMA GUIDELINE IMPLEMENTATION PROJECT IN THE WESTERN CAPE, SOUTH AFRICA

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ABSTRACT

Introduction: Asthma is the eighth leading contributor to the burden of disease in South Africa. Previous guidelines have been published in scientific journals with no explicit approach to their dissemination and implementation. The Asthma Guideline Implementation Project (AGIP) attempted to design, monitor and evaluate a model for guideline dissemination and implementation in the Western Cape. The project focused on the new guideline for the management of chronic asthma in adults and adolescents.

Methods: Outcome Mapping was used to design, monitor and evaluate the project. Seven boundary partners were targeted by the project – patients, primary care providers, medical schemes, Department of Health, universities and training bodies, pharmaceutical industry and hospital-based physicians. Thirteen strategies were planned to engage with and influence these boundary partners.

Results: More than 50% of the planned changes were achieved among all the boundary partners, except for the medical schemes. Greatest success was seen with patients, primary care providers and the Department of Health. The AGIP developed self-management/education leaflets, group education tools and DVD materials for patients; desktop manuals, wall-charts, audit tools, and interactive workshops for primary care providers.

Conclusion: AGIP have shown how new guidelines can be disseminated and implemented in a multifaceted and more effective way than simply publishing in a scientific journal. The resource materials and strategies developed by AGIP have been offered to other provinces via the National Asthma Education Programme and National Department of Health.

INTRODUCTION

Asthma is the eighth leading contributor to the burden of disease in South Africa and is the second most important chronic disease after HIV/AIDS.¹ These may be somewhat surprising findings as diabetes and cardiovascular disease usually receive more attention, and asthma is often not considered that serious. However, because asthma causes significant morbidity in young and working adults, this adds to the number of disability adjusted life years (DALYs) in relation to other chronic diseases. The prevalence of recent wheeze in adults is reported as 14.4% in males and 17.6% in females with a self-reported prevalence of asthma of 3.7% and 3.8% respectively.² In the Western Cape the prevalence of asthma among children aged 9-13 years has been reported as 13.2% which is similar to the global average of 13.7%.^{3,4} The prevalence of asthma in children is rising in sub-Saharan Africa.⁴

Access to essential drugs for asthma, including inhaled steroids, is relatively good in South Africa compared to other sub-Saharan countries. However the overwhelming nature of the HIV/AIDS epidemic and the focus of primary health care services on acute episodic conditions has meant that chronic asthma has not received priority attention. The South African Thoracic Society (SATS) recently published new guidelines⁵ and for the first time funded a multifaceted dissemination and implementation strategy in the Western Cape.⁶

District health services in the Western Cape serve a population of 5 million people of whom 80% are uninsured and depend on the public sector for their health care. The province is divided into 6 districts: Cape Town Metropole, West Coast, Winelands, Overberg, Eden and Karoo. Each of these districts is served by a network of mobiles, clinics, community health centres and district hospitals. First-line primary care is largely provided by clinical nurse practitioners with the support of medical officers and pharmacists. Chronic asthma is managed by these primary care providers and acute asthma by district hospitals and, if necessary, regional or tertiary hospitals. Complicated or difficult chronic asthma patients can also be referred to specialists at regional or tertiary levels.

METHODS

This Asthma Guideline Implementation Project (AGIP) used outcome mapping to define its vision and mission and to identify seven groups of people or organisations that they intended to influence.⁶

Table I. Outcome challenges for the seven boundary partners

1. Patients

The project intends to see that patients are well-informed about their symptoms, trigger factors, drug therapy (regular anti-inflammatory preventer/controller therapy) and are able to appropriately self-manage their asthma. They show improved adherence to metered-dose inhaler (MDI) technique and dose and decreased use of home nebulisers.

2. Primary health care (PHC) workers – public and private

The project intends to see that PHC workers are well informed about the diagnosis and management of asthma and have read, understood and use the guidelines on a regular basis. They recognise and diagnose asthma early, introduce anti-inflammatory medication early, assess control effectively (5 basic questions), use objective assessment measurements (peak expiratory flow rate (PEFR)), encourage use of spacers, check for inhaler technique, provide relevant information, motivate behaviour change skillfully and refer appropriately. They are aware of and use resources provided by National Asthma Education Programme (NAEP).

3. Medical schemes

The project intends to see that all medical schemes agree to finance inhaled corticosteroids (ICS) & long-acting beta-agonists (LABAs) (preferably combination devices) and promote guidelines that are congruent with the SATS guideline. Medical schemes would fund the dissemination and implementation plan.

4. DOH

The project intends to see that the DOH agrees to finance ICS & LABAs (preferably combination devices) as well as providing sufficient spacers and PEFR meters. They will promote guidelines that are congruent with the SATS guideline and form a partnership with NAEP to train PHC workers and assess the quality of care in each district. DOH would fund the dissemination and implementation plan.

5. Universities and training bodies

The project intends to see the guidelines have been incorporated into curricula and assessment in all medical schools, nursing and pharmacy schools.

6. Pharmaceutical industry

The project intends to see that the pharmaceutical industry would promote guidelines that are congruent with the SATS guideline, disseminate NAEP's materials and would fund the dissemination and implementation plan.

7. Hospital-based physicians and pulmonologists

The project intends to see that hospital-based physicians and pulmonologists are well informed about the diagnosis and management of asthma and have read, understood and use the guidelines on a daily basis.

1. Patients
2. Primary care providers
3. Medical schemes
4. Department of Health (DOH)
5. Universities and training bodies
6. Pharmaceutical industry
7. Hospital physicians and pulmonologists.

For each of these groups we defined an outcome (Table I) and a series of progress markers that would help monitor to what extent the outcome was achieved. These progress markers were divided into changes that AGIP would 'expect to see', 'like to see' and 'love to see'. At the same time AGIP planned a number of activities or strategies that were intended to achieve the desired outcomes (Table II). The outcome mapping process has been more fully described elsewhere.⁶

AGIP consisted of a steering committee (Fig. 1) of two pulmonologists, two family physicians, a nurse and a pharmacist who met quarterly. One of the family physicians was responsible for operational management of the project and a project manager was employed full time to implement the plans. The project manager was a nurse with experience in facility management and education.

During the project the family physician and project manager met regularly to document progress, reflect on key factors and actors responsible for change, identify unanticipated effects and to plan further action. At the end of the project the extent to which each progress marker was achieved was rated by the team as:

- High: this has been substantially or fully achieved (score 2)
- Medium: some significant progress has been achieved (score 1)
- Low: no or little progress has been made (score 0)

The percentage of the total score possible for each group was then calculated as an indication of actual progress made in relation to each group. A final workshop with the whole team was held to reflect on the project's experience with each boundary partner, to understand what had happened and to interpret the project's strengths and weaknesses.

This paper reports on the results of this monitoring and evaluation process.

RESULTS

Figure 2 shows the percentage of progress markers that were actually achieved for each boundary partner.



Fig. 1. The AGIP team, left to right (standing): Prof Irusen, Prof Mash, Dr Pather, (seated) Dr Mayers, Prof Ainslie, Prof Bheekie, Ms Rhode.

Table II. Key strategies planned by AGIP

Patients

1. The project should develop patient education material (printed and video) in key languages (English, Xhosa, Afrikaans) that are integrated with the rest of the educational materials for the new guidelines. These should be developed/promoted with the health education/media units within the DOH.

Health care workers (primary care and hospital-based)

2. The project should publish the guidelines in a format that is practical, illustrated, easy-to-follow, and where key messages are short, specific, simple 'punchy' statements. This manual should be tested with the key target audiences and revised based on their feedback. If necessary more than one manual should be developed for different target audiences. The manual should be dovetailed with any similar materials or regulations already used in the province.
3. The project should produce reminders of the key messages in the form of a wall chart.
4. The NAEP distance learning certificate course should be promoted to the target audiences more actively via the boundary partners.
5. The project should create a framework for and resources to support interactive training workshops aimed at health care workers. Trainers from the primary care provider organisations should be identified and trained in how to facilitate the further training in their setting.
6. The project will create generic material to support simple quality assessment and improvement activities (QI cycle) in health care settings that support the key guideline messages and quality criteria. This will include the provision of a simple electronic data collection and analysis tool for appropriate settings with the help of the Health Information System Project (HISP).
7. The project will publish the guidelines in the format of journal articles and negotiate for an edition of the *CME* journal on asthma care.

Medical schemes/DOH

8. The project will present the guidelines to the Council for Medical Schemes and consultants to the medical aid industry in order to discuss areas of congruence/incongruence and negotiate the appropriate funding of asthma medication as well as asthma care.
9. The project will present the guidelines to national and provincial therapeutics committees in order to discuss areas of congruence/incongruence with EDL (essential drug list) guidelines and to negotiate the appropriate provision of asthma medication and associated equipment (spacers, PEFr) in the public sector.
10. The project will present the guidelines to the Chronic Diseases Directorate and discuss areas of congruence/incongruence. The project will also present the implementation and dissemination plan to identify ways in which NAEP and the DOH: Chronic Diseases Directorate can work together in improving the quality of care at the district level (through the QI activities and training workshops and promotion of associated materials). If a partnership is possible then use of DOH funds to assist with this should be considered.

Universities and training bodies

11. The project should present the guidelines and associated resource materials to the under- and postgraduate curriculum advisors for family medicine, internal medicine, nursing, pharmacology, pharmacy and physiotherapy at each university and school.

Pharmaceutical industry

12. The project should target the pharmaceutical industry with funding proposals related to different strategies within the project.
13. The project should present the guidelines and discuss ways in which the pharmaceutical company can distribute materials.

The contribution of progress markers from the 'expect to see', 'like to see' and 'love to see' categories is also shown. More than 50% of all progress markers were achieved in all boundary partners, except for the interaction with medical schemes. Greatest success was seen with patients, primary care workers and the DOH.

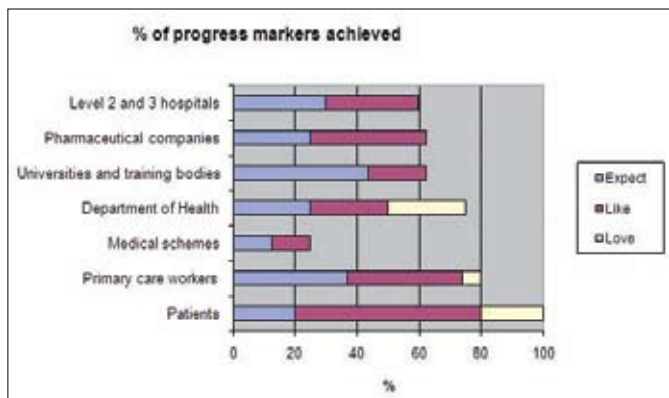


Fig. 2. Percentage of total score possible for achievement of progress markers.

Patients

AGIP did not work with patients directly, but aimed to provide health workers with materials that would help patients to understand and manage asthma better.

- Patient education leaflets (Fig. 3) were produced in English, Afrikaans and Xhosa (www.pulmonology.co.za) and were designed so that health workers could personalise them as self-management plans. Considerable time was spent piloting the leaflets with health workers, asthma experts and patients so that the content was not only evidence-based, but at the correct written and visual literacy levels. The provision of a patient education leaflet/self-management plan has since been included as an audit criterion by the Western Cape District Health Services (DHS).
- As asthma and chronic obstructive pulmonary disease (COPD) are frequently encountered together and confused in primary care, a patient education leaflet on COPD was also developed in English.

Table III. Key topics in group education flipchart

The 17 pictures deal with the following topics:
 How does asthma affect your goals in life?
 Your goals for your asthma
 How confident you are in controlling your asthma
 Your level of control
 What asthma is
 How your reliever medication works on your airways
 How your controller medication works on your airways
 How to use your asthma medication correctly
 How to manage an acute attack
 Identifying trigger factors (inside, outside and at work)
 Where you would like to be in life or with your asthma

- In urban and larger health centres asthma patients usually attend in clubs as there are so many and group education is frequently performed. To support this activity the important themes in asthma education and self-care were identified and a flip-chart developed with images (Fig. 3) that support interactive group conversations (Table III). This flip chart will be further piloted and evaluated in the Cape Town metropole as part of a doctoral research study.
- In addition to the flip-chart a series of DVD and VHS film clips were developed in English, Afrikaans and Xhosa that demonstrate use of the MDI with and without a spacer. This resource can also be used for group education and when health workers are uncertain about demonstrating the MDI themselves.
- Materials were marketed through workshops held in each district and disseminated to all participants and health centres that subsequently requested them.

PHC workers

Considerable effort was directed towards engaging clinical nurse practitioners, doctors and pharmacists. As PALS Plus (<http://www.knowledgetranslation.uct.ac.za>) was already focused on primary care guidelines for nurses, the AGIP attempted to target doctors and pharmacists so as to complement their training.

- The main messages from the published guideline were incorporated into a short desktop manual that aimed to support decision making during the clinical encounter. The manual provided assistance with diagnosis, education, assessment and management of the asthmatic patient.
- At the request of the DHS the second edition of the manual included similar material on COPD.
- A wall chart was developed which also summarised the key messages, although health workers reported that only the PEFr reference table on the chart was used frequently.



Fig. 3. Front covers of patient education leaflet and flipchart for group education.



Fig. 4. Participants at an AGIP workshop.

- AGIP promoted the NAEP Certificate Course with a printed flyer and marketing at all workshops and presentations during 2008.
- An audit tool was developed with criteria based on the guideline, available literature and knowledge of the local context. The tool included structural, process and outcome indicators and health workers in all districts were trained in use of the tool at initial workshops. Subsequent workshops were used to reflect on the results and plan changes to improve the quality of asthma care. The audit was performed in 46 facilities and included 957 patients throughout the province. Results of the initial audit have been published.⁷ The AGIP experience was incorporated into the DHS integrated audit tool for chronic disorders in 2009 – this is a policy priority for the DHS during 2009-2011.
- Software was developed to support health workers with calculating the results of the audit and obtaining a quick summary of the results on a single page. The software was developed as part of the District Health Information System (DHIS), which most provinces in South Africa are using.
- The guideline was published in three journals that target each primary care provider group.^{5,8,9} In addition a special theme edition of the *CME* journal was published on the topic of asthma.¹⁰
- Interactive workshops (Fig. 4) were held twice in each district to introduce primary care providers to the AGIP materials, particularly the desktop manual and audit tools.
- Workshops were followed up by supportive facility visits from the project manager when requested by the participants.
- DVD material was developed that demonstrated consultations with asthma patients in both a directing and guiding style. A guiding style is thought to be more likely to support adherence and lifestyle change.¹¹
- The guideline was presented to several primary care organisations (Fig. 5) at the 14th National Family Practitioners Conference, the Rural Doctors Association of South Africa, the Pharmaceutical Congress and the Pharmaceutical Society in Cape Town and George.
- A contract was signed with Qualicare, a local independent practitioner association (IPA) with a network of 500 private GPs, to disseminate the AGIP materials via consultant visits. The contract also included information in a monthly newsletter, email message with the CME articles and associated CPD quizzes.



Fig. 5 Prof Bob Mash and Ms Hilary Rhode presented the guideline at the Rural Doctors Association Conference, 2008



Fig. 6. Ms Hilary Rhode, AGIP project manager, with Ms Unita van Vuuren, Deputy Director Chronic Diseases

Medical schemes

AGIP spent more time engaging the public than the private sector as more patients are managed within the public sector. Engaging the private sector was difficult because of the number of different organisations and our unfamiliarity with the sector:

- Presentations were made to the forum for medical advisors in the Western Cape and Gauteng
- Visits were made to QUALSA who incorporated the guidelines as their main official resource. QUALSA provides managed care services to employer-based medical schemes in South Africa. This will inform decisions about appropriate management from GPs as well as hospital specialists. QUALSA have subsequently expressed interest in including the patient education leaflets in their internet-based system.
- AGIP had no success in engaging with the National Council for Medical Schemes.

Department of Health

The DOH was a vital partner in the success of the AGIP. A close working relationship with the Provincial Deputy Director for Chronic Diseases (Fig. 6) was pivotal in engaging with the DOH as a whole:

- AGIP was appointed by the DHS as the *Core Technical Task for Asthma and COPD* within their policy development

initiative for chronic diseases. This gave credibility to AGIP and allowed AGIP to propose norms and standards to the province for asthma care. This led to the inclusion of COPD in AGIP's resource materials.

- AGIP successfully motivated for official approval of the guidelines by the *Provincial Committee on Guidelines* and the guidelines were then officially distributed by the DOH.
- AGIP liaised with the human resource departments in order to get permission to provide training and to receive logistic support.
- AGIP negotiated indirectly with the Provincial Therapeutic and Coding Committee and succeeded in improving the alignment of asthma treatment with the guidelines (e.g. increased maximum dose of inhaled steroid and provision of theophylline SR at step 4). In order not to confuse or frustrate the health workers and to receive support from the DOH it was necessary to accept the regulations currently in force, while continuing to negotiate over them. AGIP attempted to have placebo MDIs incorporated into the pharmaceutical catalogue. While provision of donated placebo MDIs via the DOH improved by the end of the project there was still no sustainable process for their ongoing acquisition via the catalogue. AGIP motivated for more availability of spacers and disseminated information on how to order these via the pharmacies.

University and training bodies

AGIP identified the local departments and schools responsible for the training of doctors, clinical nurse practitioners, interns, family physicians and pharmacists. A package of educational material included samples of the AGIP materials and a CDROM of PowerPoint slides that could be used or adapted (Fig. 7).

Members of the AGIP team also promoted the inclusion of asthma as a topic in assessment, for example the use of simulated consultations, objective structured clinical examination (OSCE) stations and multiple choice questions. It was important to build strategic relationships with key people in each of the courses or institutions.

Pharmaceutical industry

AGIP presented their materials to the respiratory managers from various pharmaceutical companies. Companies were asked to use the materials, especially the manual, in academic detailing with private GPs. Companies paid for the printing of the manuals, which were then delivered to them for use by their representatives.

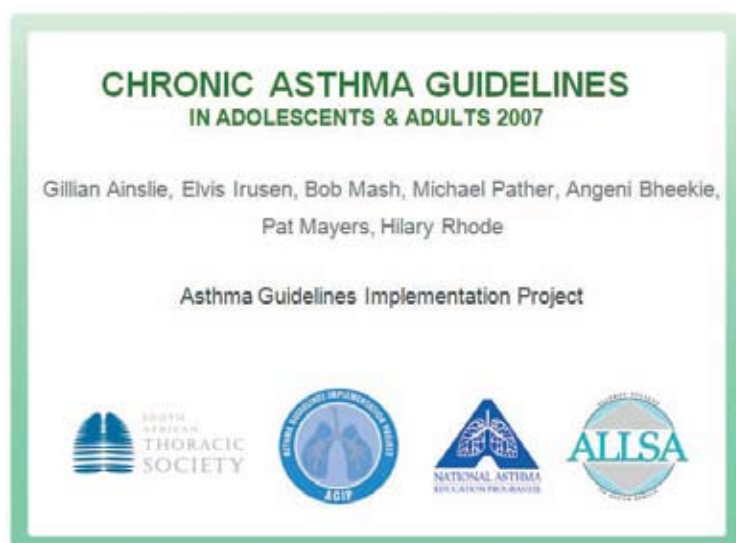


Fig. 7. Cover slide for PowerPoint slide presentation.



Illustration of outside triggers of asthma from the flip-chart.

However, it is not clear to what extent the materials were disseminated and promoted within the private sector via this strategy. There was some conceptual confusion regarding what was expected of them and no direct training was provided to their representatives. Companies also contributed to the funding of some of the training activities and workshops.

Hospital-based physicians and pulmonologists

Presentations on the new guidelines were made to hospital-based physicians and pulmonologists at all the level 2 and 3 hospitals in the province. Hospitals did not show interest in more interactive workshops or in the use of audit tools to assess their quality of care.

DISCUSSION

Patients

In the Western Cape asthma is now the only chronic disease with a comprehensive range of educational materials in all local languages. Patients do not appear to have a concept for COPD and in colloquial speech label both asthma and COPD as 'asthma'. It was difficult to know whether to use the label COPD with patients and how best to explain the difference between COPD and asthma. The problem was compounded by the collusion of health workers in not making the distinction themselves and often using the diagnoses interchangeably. Many patients labelled as asthmatic were in fact suffering from COPD, often as a result of TB rather than smoking. As the conditions have different causes, treatment steps, complications and prognosis, it seems useful to make a clear distinction. Therefore any educational programme that focuses on asthma needs to also include COPD as an issue.

AGIP materials consciously supported a more interactive approach to education. For example the materials encouraged health workers to personalise the patient leaflet as part of a conversation and to create a self-management plan. Interactive group education materials were designed to elicit patient's ideas, concerns and expectations. It was not clear to what extent the primary care workers were actually using materials in this way, but their reaction to the DVD on consultation styles suggested they were not sensitised to patient-centred communication. However, patient knowledge about asthma was very low and almost any approach to giving or exchanging information is likely to have some benefit.

Primary care workers

The workshops with the primary care workers attracted a mixture of nurse managers, clinical nurse practitioners, other nurses, pharmacists and medical officers.

Attendance was of necessity a convenient sample of the primary care workers from that district. Participants planned to actively share the materials, knowledge and skills with all relevant staff at their facility and if possible within their sub-district. Workshops were followed up by telephonic support from the project manager. The project manager was available on request to complement the workshops with outreach visits to specific facilities. The use of the quality improvement cycle encouraged an ongoing process of observation-reflection-planning-action between the workshops and the involvement of a wider range of people. Key people emerged in the districts who had a particular interest in asthma and who could champion the process further. For example some were busy with the NAEP Asthma Certificate course or research on asthma for their masters degree.

Quality improvement is a slow and gradual process as illustrated by AGIP's experience. Once-off talks or workshops are unlikely to achieve sustained change. Engagement over an extended period of time, building relationships and using a variety of methods appeared to raise people's consciousness of the issue and lead to change.

Calculation of key indicators in the audit process was difficult as primary care workers were good at collecting raw data, but unreliable at calculating the results. The DHIS software, which automated the calculation, was also difficult as many rural clinics had no computers and staff had insufficient computer skills. Sending the raw data away to a central office reduced people's ownership of the results and disrupted the learning cycle as results might only be sent back weeks or months later. AGIP used the second round of workshops to assist with the calculation of results, reflection and planning. In future it might be better to identify one reliable person at the sub-district level who could efficiently perform the calculation and give timely feedback. AGIP emphasised the use of the audit tool as a learning cycle embedded within the facility rather than a task of data collection performed by health workers for the district management. Change was conceived, planned and implemented at the facility level.

Primary care workers gave feedback on the different data sets being used to determine predicted PEF. Quite different predictions can be obtained depending on which data set is used and none of the data is derived from South African populations. Eventually AGIP used the data set which gave the lowest predicted PEF values as patients who were unable to achieve these had a greater likelihood of significant airways obstruction as well as a greater chance of achieving the targets.

AGIP felt it was important to engage the whole clinical team so that nurses, doctors and pharmacists shared the same concepts in asthma management. Patients referred between them would then be likely to get consistent and congruent approaches. Working with the whole team also enabled people to clarify their complementary roles and contribution to the goals of asthma management.

Improving the quality of care for asthma raised many issues that are generic to chronic care, for example, the need for continuity, patient-centredness, team work and collaboration around education and empowerment of patients.

An innovative approach to the private sector GPs was developed with Qualicare who as an IPA were committed to continuing professional development among their members. Academic detailing of AGIP materials by their consultants appeared to be the most effective strategy as the response to newsletters and emails was limited. In future AGIP would look for similar synergies with other IPAs.



Illustration of keeping appointments from flipchart.

Department of Health

Overall there was a better than expected relationship and collaboration with the DOH which was critical to the success of AGIP. At a provincial level the need to address the growing epidemic of non-communicable chronic diseases such as asthma, diabetes and hypertension had been clearly identified.

Despite the burden of disease attributed to asthma, AGIP developed the impression that asthma is not regarded as a priority by many facility managers and health workers who are more focused on HIV and other chronic diseases such as diabetes and hypertension.

It was important that AGIP's recommendations on treatment did not contradict the Drug and Therapeutic Committee's guidelines, as this determined what primary care workers were practically able to do. What was permissible according to the local Essential Drug List and what was recommended in the SATS national guidelines were therefore not the same, and in order to do justice to both, AGIP included both possibilities in the manual. Health workers could then work from the official treatment steps for the public sector, but also be aware of the other possibilities. AGIP recommended that LABAs, which are given more prominence in the new guidelines in combination with inhaled steroids, be made more accessible within the DHS by allowing family physicians to prescribe them. The Drug and Therapeutic Committee however did not support this request.

The sustainable provision of placebo MDIs for educational purposes was difficult. It emerged that, because the placebos were donated to the province on an ad hoc basis, they could not be ordered or distributed in the same way as other medications via the pharmaceutical depot. Possibly if a small cost was associated with the placebos this would allow the province to make them more accessible via the usual channels and allow the drug company to ensure a continuous supply.

AGIP developed a close working relationship with the Chronic Disease portfolio and their official endorsement was critical in allowing AGIP access to primary care providers. This access however needed to be via the Human Resource Department who were responsible for training. In several districts it took months to obtain permission despite official endorsement and HR had their own pre-determined plans and priorities. HR support was variable and sometimes inefficient in terms of practical organisation of venues and food, as well as in terms of inviting the relevant people to the workshops. In future however initiatives involving training should engage HR earlier in planning and include them in the training so that they can continue to support health workers in the future.

The appointment of the entire AGIP committee as the official technical task team gave AGIP a mandate to contribute to the formation of policy in the area of asthma and COPD and also enabled conversations with other departments and divisions within the DOH.

Medical schemes

It was difficult for AGIP to engage the medical schemes and this may partly be due to their lack of familiarity with the private sector. It might have helped to have someone more connected with the private sector as part of the steering committee. Nevertheless AGIP had some success in influencing the medical advisors and having the new guidelines endorsed by organisations such as QUALSA.

University and training bodies

As most of the members of AGIP were employed by universities it was relatively easy to influence key programme managers to use the guidelines, AGIP materials or focus more on asthma in assessment. More difficulty was experienced with engaging the nursing colleges responsible for training clinical nurse practitioners as strategic partners and relationships had to be created.

Pharmaceutical industry

The pharmaceutical industry was critical in directly and indirectly funding the project. As AGIP was likely to lead to greater appropriate use of inhaled steroids and other products there was clearly a win-win situation. It proved more difficult to engage the companies in academic detailing using the AGIP materials to private GPs. Companies may have been more interested in disseminating their own branded materials or may not have understood what AGIP was suggesting.

Hospital physicians and pulmonologists

Although the pulmonologists involved in AGIP gave talks at all the level 2 and 3 hospitals, this type of CPD is unlikely to have had a major impact. There may be a need for these hospitals to look more critically at their own quality of care and develop their own audit tool. As the majority of asthma patients are not managed at this level, AGIP did not plan activities beyond this type of CPD.

Strengths and limitations

The outcome mapping process provided a clear and well-structured outline of what the project intended to achieve, how the project would attempt to do this and how the project would monitor progress in a framework that was congruent with action learning. We would recommend outcome mapping as an approach to constructing similar projects in future.

The organisational and relational skills of the project manager were critical to success, and progress often relied on relationships with specific strategic partners among the boundary partners.

More progress might have been achieved with the private sector if the steering committee had included a representative who understood this sector better. In addition the project might have also benefitted from an expert patient on the steering committee. Although the initial plans included a media or marketing campaign to promote key messages on asthma to the general public this strategy was not pursued. At the time NAEP engaged with a media company separately from AGIP for this purpose.

CONCLUSION

AGIP have shown how new guidelines can be disseminated and implemented in a multifaceted and more effective way than simply publishing in a scientific journal. The resource materials and strategies developed by AGIP have been offered to other provinces via the National Department of Health and National Asthma Education Programme.

Declaration of conflict of interest

The authors declare no conflict of interest. Current research funds are from the International Diabetes Federation and Chronic Disease Initiative in Africa.

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NOTICE TO ALL ALLSA MEMBERS – CPD QUESTIONNAIRE BACK ONLINE

We are using a new database linked to the ALLSA website. You should have received recent notification (either by email or by post if we don't have your email address) of your username and password. If you have not received them, please contact the ALLSA office, 021-447-9019. You will need to enter your username and password to access the Secure Members Only section of the website where you can answer the CPD questionnaire. It's important to check your personal details because you need to include your **HPCSA number** so it will print on your certificate.

Please follow these steps:

1. Log on to the Secure Members Only section at www.allergysa.org by entering your username and password.
2. Click on **My Practice** and then under **Update my Details**. Add any relevant information (HPCSA number, email address, etc.) Click **Save** on each page as you complete it before moving to the next page (e.g. email address is on Communications page while HPCSA number is on Biographical page). Once details have been updated, please email update notification to admin@allergysa.org for our records.
3. At the top of the webpage, click on **My CPD** to get to the questionnaires.
4. Click on the issue you want and answer the ques-

tionnaire. If you need to read the articles first, click on **View all articles** and follow the links (*View, Click here to read more, Proceed to questionnaire*).

5. You are allowed two attempts to answer the questionnaire, and you must get 70% correct to gain 3 continuing education units (CEUs – the new name for CPD points).
6. Click on **My CPD Home** on the left of the questionnaire to see your points. Under My Points, click **Show breakdown** and then **Certificate** if you want to print your certificate immediately. You can also print your certificate at a later stage if you prefer.

Please note that questionnaires can be answered at any time during a 2-year period. Once you have answered the questionnaire, it no longer appears on your CPD home page, but you can see your points and status by clicking **View all articles**.

NB The new website will archive CEUs (CPD points) from the November 2009 issue onwards. If you require a certificate for points gained from March to August 2009, please contact Anne Hahn, tel 021-511-2614, email annehahn@mweb.co.za.

If you are not an ALLSA member and would like to become one please contact the ALLSA office, 021-447-9019, or admin@allergysa.org.