

# Application of Basel Statement in South Africa: lessons from Brisbane and the world

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## Introduction

The Basel Statements are a set of hospital pharmacy practice standards developed by the International Pharmaceutical Federation (FIP) Hospital Pharmacy Section (HPS) to reflect the global pharmacy profession's preferred vision of practice in the hospital setting and serve as a resource for pharmacists, departments of pharmacy, and pharmacy organizations to ensure the collective group of hospital pharmacists are working toward a shared vision.

The Basel Statements were birthed in a historic two-day-meeting of FIP-HPS in 2008 during the inaugural Global Conference on the Future of Hospital Pharmacy in Basel, Switzerland.<sup>1</sup> During the time, 75 statements were adopted and reflected the vision of hospital pharmacy practice globally. The statements have since gone through a major revision process known as the "Bangkok Updates" in 2014 at the 74<sup>th</sup> FIP World Congress in Bangkok, Thailand resulting in 65 statements organized as we know them today:

- Overarching and Governance Statements
- Theme 1: Procurement
- Theme 2: Influences on Prescribing
- Theme 3: Preparation and Delivery
- Theme 4: Administration
- Theme 5: Monitoring of Medicines Use
- Theme 6: Human Resources, Training and Development

In September 2023 at the 81<sup>st</sup> FIP World Congress of Pharmacy and Pharmaceutical Sciences, the FIP-HPS hosted a Basel Statement Update Workshop with the dual aim of ensuring the Basel Statements remain relevant in the practice of hospital pharmacy in all World Health Organization (WHO) regions and developing implementation guides for enhanced utilisation of the Basel Statements worldwide. This workshop drew a diverse audience of experts and professionals from all WHO regions who were eager to engage in insightful discussions and activities to maintain contemporaneity of the Basel Statements and explore ways to utilise the Basel Statements in their respective countries. The workshop served as the final phase of a four phase FIP-HPS project to update the statements. The four phases were designed to achieve the project aims through creation of the "Brisbane Updates" to the Basel Statements:

- Phase 1: Gap Analysis and Document Mapping
  - Goal: Map the Basel Statements to the FIP Development Goals, FIP Global Competency Framework, FIP Global Advanced Development Framework, FIP Statements of Policy, hospital pharmacy association statements, and WHO supporting documents.

- Phase 2: Analysis and Verification of Gaps
  - Goal: Identify gaps in Basel Statements based on document mapping in Phase 1, identify gaps in hospital pharmacy association statements, and member checking gaps with organisations to confirm findings of gap analysis.
- Phase 3: FIP-HPS Membership Survey
  - Goal: Understand how the membership is using the Basel Statements and what changes are desired.
- Phase 4: Basel Statement Update Workshop & Finalizing Brisbane Updates to the Basel Statements
  - Goal: Gain consensus from workshop attendees through discussion and activities on the Brisbane Updates to the Basel Statements and utilise the consensus building approach to develop implementation guides for the three most utilised Basel Statements.

Evidence-based practice has supported the adoption, implementation and use of the Basel Statements as a source for policy direction and practice standards in an ever-changing healthcare environment.<sup>2,3</sup> The statements are universally relevant and provide a scientific context to maximise the value of hospital pharmacists in delivering care for the wellbeing of patients.<sup>4</sup> In a review paper published by the Canadian Journal of Hospital Pharmacy, Panm, *et al* (2016) shows that Basel statements have led to multiple initiatives in more than 70 countries with most initiatives happening in European and Western Pacific regions.<sup>5</sup> This report shares insights into the workshop, the FIP-HPS strategic direction, and South Africa's need for alignment in light with existing evidence.

## Brisbane Updates to the Basel Statements

During the Basel Statement workshop on 24 September 2023 in Brisbane, the FIP-HPS reiterated their mission, to advocate and support full utilisation of hospital pharmacists and support staff's expertise for the benefit of people and healthcare systems. This mission is delivered through four strategic goals, one of which is establishing standards for hospital pharmacy practice and workforce, underpinned by patient safety. Attainment of this goal relies on the consistent maintenance and promotion of the Basel Statements.

The foundation for achieving this goal is a comprehensive understanding of the Basel Statements by pharmacists as a reflection of the global pharmacy profession's preferred vision of practice in the hospital setting. These statements serve three main purposes:

- To set standards for hospital pharmacy practice and workforce (Basel Statements) underpinned by patient safety.
- To serve as a resource for pharmacists, departments of pharmacy,

and pharmacy organisations to ensure the collective group of hospital pharmacists are working towards a shared vision.

- To propel international initiatives to support and develop hospital pharmacy.

While this vision holds the potential for an ideal global hospital pharmacy practice, some hospital associations in certain countries do not include the Basel Statements in their strategic objectives. The workshop served as a platform to re-emphasise these statements to both FIP members and member states, driving the global vision forward. Gap analysis and membership survey results presented during the workshop indicated:

- The necessity for national hospital associations to recognise the Basel Statements to achieve global coherence.
- The lack of alignment of the statements with activities at the country level suggesting the potential need for WHO region specific statements and validating the need for the Brisbane Updates.
- Need for implementation guides to help incorporation of Basel Statements into practice.

A recurring theme in the conversations held during the Basel Statement Update Workshop activities was patient-centred care. Much of the consensus activity discussion also included ways to update the statements related to utilising pharmacists' full clinical expertise, the expansion of specialisations within the pharmacy workforce, and alignment with practice changes since the past update. These discussions and consensus outcomes align with the emerging trends and priorities in hospital pharmacy, as recorded in the FIP-HPS strategic plan for 2022-2027, alongside technology and workforce sustainability and development. At the centre of emerging trends is the utilisation

of pharmacists' full clinical expertise, specialisation, stewardship programs, pharmacogenomics, and personalised medicines (see Figure 1).<sup>6</sup>

### Alignment of Basel Statements in Africa

Basel Statement alignment is assessed through a four-tier<sup>7</sup> (see Table I) self-assessment tool published by FIP-HPS that puts patient safety at the centre of practice allowing pharmacists to understand how daily activities compare against the Basel Statements. The tier system also considers the advancement in pharmacy practice, availability of resources per facility, training, and support of pharmacy personnel.

Tier	Description
Zero	Below minimum standards
One	Good Hospital Pharmacy Practice which supports the safety of procurement, preparation, distribution, and administration of medicines no matter the available resources
Two	Clinical service activities which address appropriate use of medicines but do not serve every patient, due to available resources
Three	Best practice, robust clinical services, and integrated information technology systems in place to serve every patient

In a 2020 study conducted at 24 hospitals in Namibia, results show that although pharmacists have a strong desire to take active roles in optimising medicines outcomes and solving public health problems, in alignment with Tier Two and Three Basel Statements, they tend to focus mostly on Tier One statements and associated activities of the Basel Statements such as medicine procurement, preparation, and distribution. Despite this desire, they spend as little as 2% of their efforts on clinical service activities (i.e. Tier Two).<sup>8</sup> In another study conducted at 44 institutions from six African countries, results show a high concentration on activities related to Tier One statements (82%), followed by 71% achievement in Tier Two, and 31% on Tier Three statements.<sup>9</sup>

The South African Association of Hospital and Institutional Pharmacists (SAAHIP) discussed the application of the Basel Statements in South Africa during the 2010 and 2011 annual conferences. Both the conferences raised human resource constraints within the public sector and physician's freedom of choice as opposed to using standardised formularies in the private sector as contributing hindrances to the implementation of the Statements.<sup>10,11</sup> Since then, there has not been a country focused assessment of the alignment between South African hospital pharmacy practices and the Basel Statements.

In 2023, however, the FIP-HPS conducted a global survey of their members to understand how the membership is using the Basel Statements and what changes are desired. Of the 146 submitted responses, 10 (6.9%) respondents were from the WHO African Region. In a WHO AFRO sub-analysis, researchers identified the 10 respondents were from 6 African countries: Cameroon (1), Malawi (1), Nigeria (1) South Africa (5), Tanzania (1) and Zambia (1).<sup>12</sup> The sub-analysis shows that respondents access the Basel Statements 2.4 (SD 2.4) times per

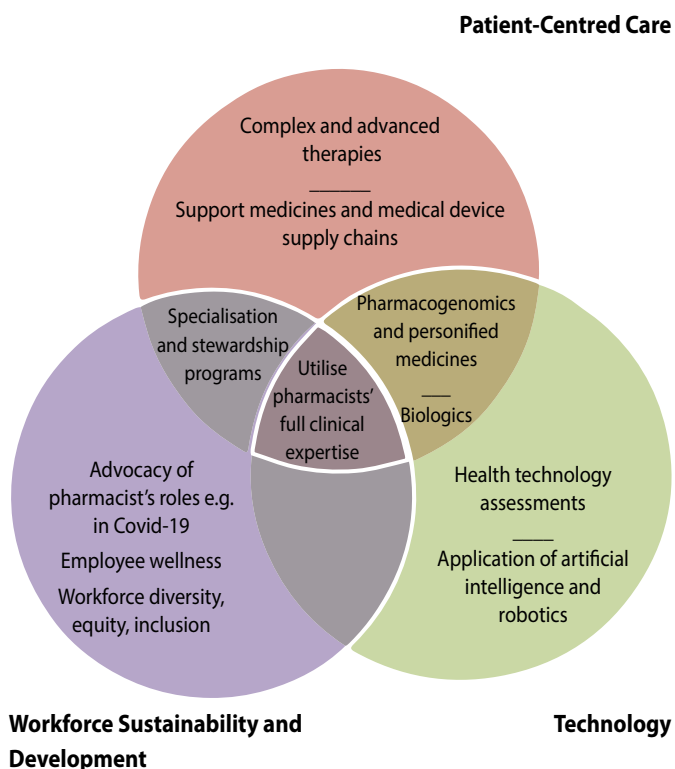


Figure 1: Emerging trends in hospital pharmacy

year and 60% (6) said that the Basel Statements reflected contemporary practice. Additionally, the sub-analysis shows that 60% (6) of the respondents plan to utilise the Basel Statements in the next year to assist in implementing innovations at their respective institutions and 20% (2) confirming they have referenced the Basel Statements in the previous year's innovations.

When reporting on how African respondents plan to utilise the Basel Statements by theme for innovations in the next year, the responses are presented below with an exclusion of theme 4 (see Table II).

Theme	Count
Overarching and governance statements	2
Theme 1 - Procurement	2
Theme 2 - Influences on Prescribing	2
Theme 3 - Preparation and Delivery of medicines	1
Theme 5 - Monitoring of Medicines Use	4
Theme 6 – Human Resource, Training and Development	2

While there is a universal agreement that the Basel Statements provide significant tools to advance and standardise hospital pharmacy, participants in the survey had similar recommendations:

- Provision of standardised tools and implementation guides with monitoring and evaluation tools.
- Provision of training on the Basel Statements, including inclusion in undergraduate training.
- A context specific approach for using the tools in low- and middle-income countries.
- Provision of guidance on how the Basel Statements can be applied by pharmacy support personnel.

## Conclusion

The Basel Statements remain a progressive tool to guide national policies, provision of ideas for engagement with strategic stakeholders and government, resource mobilisation, and practice specific innovations for provision of accessible and quality patient-centred pharmaceutical care. The South African's proposed National Health Insurance (NHI) also provides a clear-cut opportunity within Tier One of the Basel Statements where medicines procurement is emphasised as one of the critical roles that pharmacists will play. It also offers a new opportunity for higher level specialisation for supply chain management macro-environment.<sup>13</sup> The application of Tier Two and Three both present an untapped specialised opportunity in both private and public sector practice in South Africa. However, the realisation of the ideals of the FIP-HPS as presented in the Basel

Statements requires joint efforts, collaborations, and vision-driven advocacy and equitable resources allocation at all levels. There is also a need for nationwide scientific studies on the use of and congruence of Basel Statements in South Africa to be able to formulate local evidence-based opinion for training, resource allocation and practice innovations. With the 82<sup>nd</sup> FIP World Congress of Pharmacy and Pharmaceutical Sciences coming to Cape Town in September of 2024, we look forward to additional workshops held by FIP-HPS to promote nation and regionwide alignment with the Basel Statements, in addition to focusing on region specific challenges highlighted in the Brisbane workshop. These workshops may then highlight the need for country and association specific workshops dedicated to the development of hospital pharmacy best practice to ensure the provision of accessible and quality patient-centred pharmaceutical care to all patients.

## References

1. International Pharmaceutical Federation. The Basel statements on the future of hospital pharmacy. *Am J Health Syst Pharm.* 2009;66(5 Suppl 3):S61–6. doi: 10.2146/ajhp080666.
2. Doloresco F. & Vermeulen LC. Global survey of hospital pharmacy practice. *Am J Health Syst Pharm.* 2009;66(5 Suppl 3):S13–9. doi: 10.2146/ajhp080674
3. International Pharmaceutical Federation, Hospital Pharmacy Section. Revised FIP Basel statements on the future of hospital pharmacy. The Hague (Netherlands): International Pharmaceutical Federation; Available from: [www.fip.org/files/fip/FIP\\_BASEL\\_STATEMENTS\\_ON\\_THE\\_FUTURE\\_OF\\_HOSPITAL\\_PHARMACY\\_2015.pdf](http://www.fip.org/files/fip/FIP_BASEL_STATEMENTS_ON_THE_FUTURE_OF_HOSPITAL_PHARMACY_2015.pdf).
4. Moles R.J., Vermeulen L., Penm J. & Ivey M. The Basel Statements: Updated and Relevant to all. *CJHP.* 2016.69(2):101-102
5. Penm J., Chaar B. & Moles R.J. Use of the International Pharmaceutical Federation's Basel Statements to Assess and Advance Hospital Pharmacy Practice: A Scoping Review. *Can J Hosp Pharm.* 2016 Mar-Apr;69(2):131-7. doi: 10.4212/cjhp.v69i2.1540. Epub 2016 Apr 29. PMID: 27168634; PMCID: PMC4853180.
6. International Pharmaceutical Federation (FIP). The FIP Hospital Pharmacy Section Strategy Plan 2022-2027. The Hague: International Pharmaceutical Federation; 2022.
7. Lyons K., Blalock S.J., Brock T.P., Manasse H.R., & Eckel S.F. Development of a global hospital self-assessment tool and prioritization tier system based on FIP's Basel Statements. *International Journal of Pharmacy Practice*, Volume 24, Issue 2, April 2016, Pages 123–133, <https://doi.org/10.1111/ijpp.12223>
8. Bare A., Ivey M., Kibuule D. & Stevenson J.G. An analysis of hospital pharmacy practice in Namibia, based on FIP's Basel Statements. *Int J Pharm Pract.* 2021 Aug 11;29(4):350-355. doi: 10.1093/ijpp/riab019. PMID: 33890674.
9. Law M.G., Marriott J., Usifoh C., Acheampong F., Muungo L., Adome R.O., Monera-Penduka T.G., Ndzabala N. & Eckel S.F. An analysis of hospital pharmacy practice in six countries of sub-Saharan Africa based on the International Pharmaceutical Federation Basel Statements on the future of hospital pharmacy. *International Journal of Pharmacy Practice* 2019, 27, pp. 528–535
10. Gray A. Global standards, South African practice—report of a workshop. *S Afr Pharm J.* 2010;77(5):45-8.
11. Pillay T. Safe systems in hospitals: applying the Basel statements. *S Afr Pharm J.* 2011;78(7):38-9.
12. Stepanovic M. & Eckel S. FIP Basel Statement Survey Results. Hospital Pharmacy Section. International Pharmaceutical Federation. 2024.
13. Department of Health. Presidential Health Summit. Strengthening the South African Health System towards integrated and unified health system. 2018. South Africa. 33-34.