THE McKell Institute

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2021 PROGRESS UPDATE

Funding Rare Disease Therapies in Australia

ENSURING EQUITABLE ACCESS to HEALTH CARE for all AUSTRALIANS

NOVEMBER 2021

ABOUT THE MCKELL INSTITUTE

The McKell Institute is an independent, not-for-profit, public policy institute dedicated to developing practical policy ideas and contributing to public debate. The Institute has offices and staff in Sydney, Melbourne, Brisbane and Adelaide.

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ALEXION® AstraZeneca Rare Disease

ACKNOWLEDGEMENT OF COUNTRY | This report was written on the lands of Gadigal people of the Eora Nation.

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FOREWORD

As Australia begins to look beyond the peak of COVID-19, many will rightly feel our health system has stood up to the test. Despite major challenges and strains, our health system has, so far, managed the pandemic well. This success was no accident. It was enabled by decades of investment and improvement in the public health system – investments that allowed the system to flexibly address an evolving health threat as it emerged.

Many Australians have become accustomed to having access to world-leading care. For most, access to quality healthcare is a right, not a privilege. But given the strengths in our health system, it is sometimes easy to overlook the weaknesses.

The truth is that, even in 2021, there remains significant gaps in our healthcare system – particularly for those suffering rare conditions.

A disease is considered 'rare' when less than one in five-thousand Australians experience it. But while these conditions might individually be uncommon, those living with rare conditions are not.

Over 2 million Australians, or 8 per cent of our population, are estimated to be living with a rare disease. Therefore, improving the health outcomes of this sizable segment of the Australian population should be a key objective for health policymakers.

In 2014, the McKell Institute released Funding Rare Disease Therapies in Australia, a report sponsored by members of the Medicines Australia Rare Diseases Issue Group. The report identified key gaps in the funding of treatments of rare disease therapies.

MICHAEL BUCKLAND
CEO, MCKELL INSTITUTE

This latest research updates McKell's 2014 report – and argues that there is still a way to go before all Australians living with rare diseases have full access to necessary treatments.

Australians should be proud of our country's world-leading health system. But if we're to achieve true universality in Australian healthcare, more work needs to be done to plug the gaps, and ensure all Australians living with a rare disease can receive the healthcare they deserve.

The McKell Institute would like to thank Alexion for their kind sponsorship of this timely report.

EXECUTIVE SUMMARY

The McKell Institute's report seven years ago: *Funding Rare Disease Therapies in Australia – Ensuring equitable access to health for all Australians* placed the issue of inequities in access to new medicines for the one in eight Australians that live with a rare disease on the national policy agenda. It has helped shape the debate in Australia, culminating in the release of the first ever *National Strategic Action Plan for Rare Diseases* in 2020 which was a key recommendation of the 2014 Report.

Australians are proud of our universal health system, that strives to provide everyone access to the health care they need. Prioritising groups that are disadvantaged or worse-off in the allocation of resources first is the way to move toward a truly universal health system.

Since the 2014 Report there have also been reforms to the Life Saving Drugs Program (LSDP) but have not closed the access gap when looking at international comparator countries.

The current review of the National Medicines Policy (NMP) presents an opportunity to embed equity at the heart of the policies and programs that provide access to new therapies in Australia. This is particularly important as new therapies, including cell and gene therapies, become available that will transform the clinical and policy landscape for rare disease therapies.

In this report we provide an update on major developments in the policy landscape over the past seven years, drawing on a number of reviews, white papers and strategies that have informed government policy. We find that there are still significant gaps that need addressing, and that the NMP needs to be reformed to ensure the policies and programs that provide access to new medicines adequately address the needs of people with rare diseases.

We developed new Equity Centred Principles that can transform the NMP and ensure it achieves its overall objective of enhancing the health of all Australians, including those with rare diseases. Following an analysis of how our current system meets these principals against international comparator countries, we make a number of key recommendations for reform to the NMP that would embed our Equity Centred Principles at its core.

Our aim is to provide a framework for funding new therapies that is, at its heart, equitable, and can meet the needs of Australians accessing existing and new therapies, both today and into the future.

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RECOMMENDATIONS

RECOMMENDATION 1

A revised National Medicines Policy should strive for an overarching objective of 'Equity' to underscore expanded considerations of affordability, quality, innovation and access as it relates to rare disease.

RECOMMENDATION 2:

We urgently call for a revised reimbursement pathway for rare disease medicines, and recommend that the upcoming HTA Review as part of the Strategic Agreement between Medicines Australia and the Australian Government commits to prioritising and actioning this pathway.

RECOMMENDATION 3

Set best practice benchmarks against international standards to demonstrate how Australia performs in meeting its obligations under the National Medicines Policy.

RECOMMENDATION 4

Consistent with recommendations from the 2015 Review of the Life Saving Drug Program (LSDP), all Australians should have the ability to access treatments that improve their life, and the scope of the LSDP (or a revised ultra-rare disease reimbursement pathway) should be expanded to cover life improving/changing therapies.

RECOMMENDATION 5

A revised National Medicines Policy should include a multi-faceted definition of affordability, considering whole-of-person and whole-of-life factors.

RECOMMENDATION 6

The National Medicines Policy should underpin a flexible, transparent, and person-centred reimbursement process that uses innovative methods to determine value and includes the use of real world evidence and flexible financial arrangements to address uncertainty.

RECOMMENDATION 7

There should be greater focus on innovation under the National Medicines Policy, as a means to ensure more equitable access, including removing barriers to research, development and trialing of new therapies in Australia.

RECOMMENDATION 8

In placing equity at the centre of the National Medicines Policy, the system should evolve to accommodate rare and ultra- rare diseases. A statutory authority for Rare Diseases could provide the national oversight of a network of Centres of Excellence.

RARE DISEASES AFFECT approximately 2 million Australians, similar to the number that suffer from diabetes.

APPROXIMATELY **7000** RARE DISEASES THAT AFFECT 5-8% OF AUSTRALIANS

MANY RARE DISEASES ARE GENETIC

THE MAJORITY OF RARE DISEASES (82%) HAVE THEIR ONSET IN CHILDHOOD AND CONTINUE THROUGHOUT LIFE

50% OF PATIENTS WITH RARE DISEASES ARE CHILDREN

30% WILL NOT LIVE TO SEE THEIR 5TH BIRTHDAY

RARE DISEASES ARE RESPONSIBLE FOR **35%** OF DEATHS IN THE FIRST YEAR OF LIFE

RARE DISEASES MAY BE DISABLING OR LIFE THREATENING AND DIFFICULT TO DIAGNOSE AND TREAT

UP TO 40% OF AUSTRALIAN FAMILIES WITH A RARE DISEASE REPORT DIAGNOSIS IS OFTEN NOT MADE,IS INACCURATE OR DELAYED

BEFORE RECEIVING THE CORRECT DIAGNOSIS, 38% OF AUSTRALIAN CHILDREN WITH RARE DISEASES CONSULTED ≥ 6 DIFFERENT DOCTORS

MANY PATIENTS WAIT MORE THAN 3 YEARS FOR A CORRECT DIAGNOSIS TO ENABLE ACCESS TO THE RIGHT TREATMENT AND 27% REPORTED A MISDIAGNOSIS

1 IN 2800 AUSTRALIAN BABIES ARE BORN WITH 1 OF 70 DIFFERENT GENETIC CONDITIONS WITH LESS THAN 5% HAVING ACCESS TO DEFINITIVE TREATMENT

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INTRODUCTION

It is over 25 years since Australia first began providing subsidies for lifesaving medicines for rare diseases. In the last decade, cross-sectoral momentum has given rise to an evolved understanding of rare diseases in Australia, alongside consistent calls to ensure rare disease treatments are appropriately accommodated for in national policies and programs.

The McKell Institute's 2014 *Funding Rare Disease Therapies in Australia – Ensuring equitable access to health for all Australians* highlighted the large gaps in policy for people living with rare diseases. Often rare conditions had no available treatments and even where treatments were available, Australians were waiting two to four years longer than patients in comparable countries for access, due to delays in funding decisions under the Life Saving Drug Program (LSDP).

Seven years on, the 2014 report now stands alongside a number of other significant reviews and reports, as well as Australia's first ever *National Strategic Action Plan for Rare Diseases*, released in 2020.[1] This was the first recommendation in our 2014 report, and provides governments, providers and key stakeholders a working framework for addressing rare diseases in Australia. There have been a number of reforms to the funding of rare diseases since 2014, however the system remains structurally unsuitable for future innovation.

KEY INITIATIVES AND REFORMS SINCE 2014

- **The 2018 reforms to the Life Saving Drug Program;**
- **The 2019 Therapeutic Goods Administration (TGA) Orphan Drug Designation;**
- **The 2020 and 2021 Rare Cancers, Rare Diseases and Unmet Need Grant Opportunities under the Medical Research Future Fund (MRFF).**

THE APPENDIX OF THIS REPORT PROVIDES A BRIEF OVERVIEW OF EACH OF THESE INITIATIVES AND REFORMS.

The medicines policy landscape is also primed for structural change, with 2021 bringing a number of key reviews and a new strategic agreement between industry and the Australian Government, providing the opportunity for rare diseases to be finally recognised equitably within Australia's healthcare system.

RECOMMENDATIONS FROM THE 2014 REPORT ON FUNDING RARE DISEASE THERAPIES IN AUSTRALIA

1. The Australian Government should develop a National Strategy for Rare Diseases that provides a holistic approach to rare disease management.
2. Australia should be mindful of international practice and developments when designing rare disease policy frameworks.
3. A more flexible analysis of cost-effectiveness should be adopted in the assessment of new therapies that balances other considerations such as equity, the rule of rescue, community values, patient needs and the long-term costs avoided as a result of access to treatment.
4. The unique nature of therapies for rare diseases, including small patient populations and the implications this has for clinical trials, should be recognised in the evidence requirements for funding.
5. The process for assessing new therapies for rare diseases should be efficient, fit for-purpose, transparent and informed by community and patient values.

A rare disease refers to any of a large and growing group of diverse conditions that are considered uncommon within the general population.[2] While there are more than 7,000 known rare diseases, one typically unifying characteristic of this diverse group is their complexity.

Most rare diseases require life-long multidisciplinary care and can range from chronically debilitating to life-threatening and life-shortening. Often because of their obscurity and sometimes confounding array of symptoms, they can prove challenging to diagnose.[3] While each condition impacts only a small subset of the community, collectively approximately 8% or 2 million Australians are estimated to living with a rare disease.[4]

Currently, the most widely accepted definition in Australia is that a condition would be considered 'rare' if it impacts less than 5 in 10,000 people.[5] This definition has been adopted by the Australian Government Department of Health and is in line with the Therapeutic Goods Administration (TGA) definition for designation of a drug as 'orphan' for the purposes of achieving registration.[6] However, this remains at odds with the definition for reimbursement under the primary program in Australia that subsidises access to medicines to treat rare conditions – the Life Saving Drugs Program (LSDP), which applies the far more stringent definition of less than 1 in 50,000, which could be considered 'ultra-rare'.[7]

Analysis done for this report shows that since the reforms to the LSDP in 2018 Australians are still waiting longer than patients in the UK and Europe for access (see Appendix for analysis). At least nine therapies for rare diseases available in peer countries are still not accessible to Australian patients because they have been denied access or do not meet the application criteria of being life-saving, as opposed to life enhancing.

There are also new therapies available and in development that not only treat symptoms but, in some cases, the underlying causes of rare conditions. In particular, new Cell and Gene Therapies are offering the prospect of not just treating but curing some rare conditions – improving both life expectancy and life quality for impacted patient groups.[8] However, Australia's health care system is not sufficiently structured to ensure early access to these new therapies through clinical trials and funding mechanisms remain ad-hoc and underdeveloped.[9]

CURRENT FUNDING MECHANISMS FOR RARE DISEASE THERAPIES IN AUSTRALIA

THE PHARMACEUTICAL BENEFITS SCHEME

The Government provides access to subsidised medicines under the Pharmaceutical Benefits Scheme (PBS), which was the first pillar of Australia's universal health system established in 1948. The scheme provides every Australian with access to subsidised therapies that have been deemed 'cost-effective' by the independent Pharmaceutical Benefit Advisory Committee. The cost of subsidies under the PBS was $13.5 billion in 2020-21.[10]

Australia was at the forefront of the use of health technology assessments in decisions to fund new medicines, and the approach aims to ensure that the Government only funds new therapies that have proven benefit and represent value for money. While this does not explicitly exclude rare disease therapies, it can be difficult for some therapies to reach these benchmarks due to low patient numbers increasing cost and not providing adequate evidence on effectiveness.[11]

S100 SPECIALIST DRUGS

There are a number of programs under Section 100 (s100) which address gaps in the PBS coverage, including the Highly Specialised Drug Program. These recognise that some therapies need to be provided under specialised supervision due to safety, quality and cost to the Government.

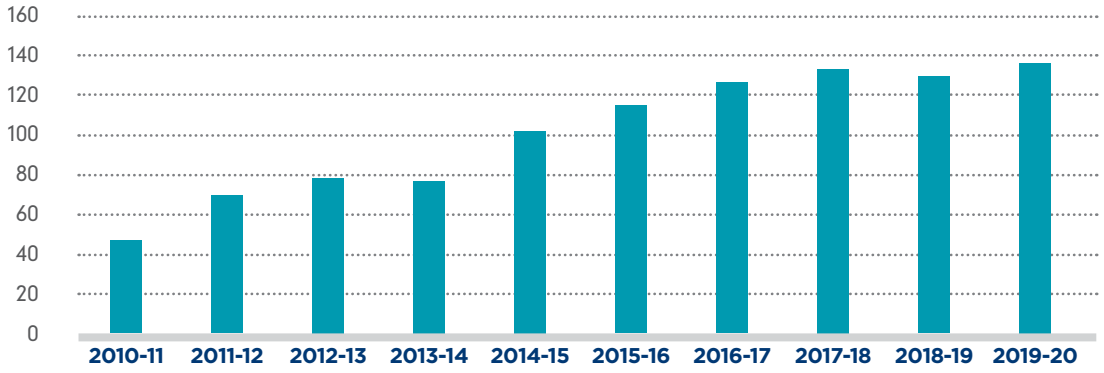
THE MEDICARE BENEFITS SCHEME

The advancement in gene cell technology now means the Medicare Benefits Scheme (MBS) is playing an increasing role in access to new therapies for rare diseases. Where genetic modifications occur outside the body, before being transferred back into the body, such as the CAR-T, it is deemed unsuitable for PBAC consideration and instead is considered by the Medical Services Advisory Committee (MSAC).[12]

THE LIFE SAVING DRUGS PROGRAM

Designed specifically for funding life-saving treatments for rare conditions, the Life Saving Drug Program (LSDP) was established in the mid-1990s. The LSDP currently funds 15 life-saving medicines for 10 rare diseases.

FIGURE 1 GOVERNMENT EXPENDITURE ON THE LSDP ($M)



Source: Parliamentary Inquiry Question on Notice, Department of Health, Standing Committee on Health, Aged Care and Sport, Inquiry into approval process for new drugs and medical technologies in Australia, Written Question on Notice, 23 June 2021

In 2010-11 there were 210 patients receiving medicines under the LSDP, growing to 463 patients in 2020-21.

Fundamentally, our health system is not designed to treat and care for people with rare diseases. This is despite one in 12 Australians having a rare disease.[13]

Australians that have more common conditions can access subsidised therapies under the Pharmaceutical Benefits Scheme (PBS), even when the incremental health benefits are quite small, because the bigger market for therapies for common conditions keeps the per unit costs of these therapies much lower.

People with rare diseases, however, are often not able to access therapies that can significantly improve their health or extend their lives, because the combination of small clinical trials and expensive treatments make it much more difficult to demonstrate that these therapies are cost-effective under the existing funding framework.[14]

While the LSDP was set up to address the gap in coverage for ultra-rare disease therapies, it only provides coverage where a therapy substantially extends life and not where it significantly improves the health and life quality of patients. The result is many clinically effective medicines for ultra-rare diseases do not meet the LSDP criteria, nor do they meet the cost-effective criteria of the PBS, so are currently not eligible for reimbursement anywhere in the system. In some cases, this results in rare diseases not having a single subsidised treatment available (despite treatments existing and often available in other countries), when other more common diseases may have an extensive range of treatment options reimbursed by Government.

As the Commonwealth Government reviews the National Medicines Policy (NMP) for the first time in over twenty years, it is timely to revisit our 2014 *Report on Funding Rare Disease Therapies in Australia*. The current NMP does not adequately account for rare disease therapies, nor does it provide a fit for purpose framework that adheres to the core principals of universality, ensuring equitable access to therapies.

As the overarching medicines policy framework in Australia, the significance of the NMP in the viability of any future reform to the funding of rare disease medicines cannot be overstated. This report looks at how rare disease medicines fit within the current NMP and how the review presents an opportunity to ensure that any national, principles-based approach to medicines considers the complexities and challenges of treating rare diseases.

THE CURRENT NATIONAL MEDICINES POLICY

The National Medicines Policy (NMP) provides the overarching policy framework for the funding of medicines in Australia. The NMP was released in 2000 following agreement from the Commonwealth, State and Territory Government, health educators, health practitioners, health consumers and the medicines industry. It currently does not account for the distinct 7 characteristics of different types of therapies and does not differentiate between common or rare diseases. In fact, the current NMP does not mention rare disease therapies.

THE NMP ARTICULATES THE PARTNERSHIP BETWEEN ALL PARTIES TO UPHOLD FOUR PRINCIPLES OR PILLARS:

- timely access to the medicines that Australians need, at a cost individuals and the community can afford;
- medicines meeting appropriate standards of quality, safety and efficacy;
- quality use of medicines; and
- maintaining a responsible and viable medicines industry.

We also recognise an important opportunity for Government action in response to the imminent release of the report from the *Inquiry into Approval Processes for New Drugs and Novel Medical Technologies in Australia*.

While in principle all the recommendations in our 2014 Report still hold, there is a need to reflect on advancements made and the changing policy and technology landscape. This report does this through providing an updated set of recommendations, including offering how the NMP could provide the policy framework to support access to rare disease therapies into the future.

The Change in Therapies

The ability to treat rare diseases through both new and existing therapies is growing, offering new hope to Australians that have previously had no options for the treatment. New medicines to treat rare diseases are emerging, as well as growing knowledge of rare disease typologies leading to promising new research into the clinical effectiveness of existing medicines currently used for other clinical presentations or diagnoses. These include new cell and gene therapies, that offer the prospect of cure for a number of rare diseases.[15]

The pipeline has been described as a 'tsunami' approaching, and there are real concerns that the approval and funding processes in Australia are not fit for purpose, leading to unnecessary delays and denying Australians access to life altering and saving medicines.[16] These new therapies, while expensive, offer the prospect of curing many rare diseases and significantly reducing disability and associated costs associated with these conditions.

The 2014 McKell Institute report pointed to the opportunities that genomics and personalised medicines offered for the treatment of rare diseases, and for 'spillover' innovations in general medicine. Australia's capabilities in the fields of genomics and precision medicine have significantly increased over the last decade, particularly in diagnostics with advancements such as rapid/ultra-rapid testing. However, Australia is still facing challenges in keeping up with the pace of worldwide advances in treatment options on this new frontier.[17]

Any understanding of medicines must consider how precision medicine/gene-based therapies can be fully harnessed to treat rare disease. These issues have been comprehensively covered in the recent White Paper – *Cell and Gene Therapies: Rising to the Challenge*.[18]

In this fast-changing landscape, the review of the National Medicines Policy offers an opportunity to evaluate whether it remains fit for purpose and can meet the overall objective of bringing about better health outcomes for all Australians.

Changing Policy Landscape

Since our report in 2014, there have been a number of inquiries and reports making recommendations in the funding of rare disease therapies.

KEY REVIEWS & REPORTS

- **The Australian Government's 2014-15 Independent Review of the Life Saving Drug Program;**
- **The 2020 National Strategic Action Plan for Rare Diseases;**
- **The 2020 McKell Institute Report Living with Duchenne and Becker in Australia; and**
- **The 2021 Evohealth Whitepaper Cell and Gene Therapies – Rising to the Challenge.**

LOOKING AHEAD

- **2021 Standing Committee on Health, Aged Care and Sport Inquiry into approval processes for new drugs and novel medical technologies in Australia.**

The 2014-15 Independent Review of the Life Saving Drug Program led to a number of reforms to the program in 2018. However, a number of the proposed reforms were not implemented (see Table 1 for analysis).

The failure of the reforms to systematically address the issues associated with the funding of rare disease therapies points to ongoing issues with the applicability of the NMP to rare disease therapies.

In the next section we outline a new proposed framework for the NMP that would embed Equity Centred Principles, before reviewing the international landscape and with respect to these principles. In the final section of the report we make some specific recommendations on the components needed in the new NMP to embed Equity Centred Principles.

TABLE 1 ANALYSIS OF 2015 LSDP REVIEW RECOMMENDATIONS AND IMPLEMENTATION

LSDP REVIEW RECOMMENDATIONS (2015)	GOVERNMENT REFORMS 2018
1. The Commonwealth Government should continue to enable access to and provide funding for medicines to treat Australians with rare diseases, where those medicines have been evaluated for safety, efficacy and clinical effectiveness.	✔
2. Medicines currently included on the Life Saving Drugs Programme (LSDP) should be grandfathered to a new Medicines for Rare Diseases Programme (MRDP) to ensure existing and new patients who meet eligibility criteria and who continue to benefit from receiving treatment for diseases currently funded under the LSDP will continue to be supported.	✘
3. The LSDP should be transitioned from a standalone programme and be formally established as a special programme under section 100 of the National Health Act 1953, mirroring other section 100 programmes such as the Highly Specialised Drugs Programme, to benefit from existing structures, processes and systems currently within the Pharmaceutical Benefits Scheme.	✘
4. The new programme should be known as the Medicines for Rare Diseases Programme. Eligibility criteria for consideration of listing under the new programme are proposed based on the current LSDP criteria. These new criteria should be reviewed in two years or after the first four submissions have been assessed using the new criteria (whichever comes first).	✘
5. There is a need when considering the value of medicines for rare diseases to consider matters beyond cost-effectiveness. These principles are already embedded in the approach used by the PBAC in its decision making but this would benefit from being more transparent.	Partially
6. Consideration should be given to enhancing the medicines submission process for rare disease therapies by adopting a collaborative multi-stakeholder approach early in the assessment cycle, before the medicine submission is formally submitted for consideration by the PBAC.	Partially
7. Rare disease' should be defined for the purpose of the Medicines for Rare Diseases Programme.	✔
8. A small number of centres of clinical expertise in rare diseases should be established. These should incorporate state-based clinical advisory committees, with the larger states networking with smaller states or territories.	✘
9. The Department of Health should support the development of a fit-for-purpose data collection framework and require sponsors of medicines for rare diseases to collect the data necessary to support initial and ongoing evaluation of medicines funded under the proposed Medicines for Rare Diseases Programme.	Partially
10. The reference group considers some matters out of scope for the LSDP Review but recommends that further consideration be given to these matters raised by stakeholders.	Noted

COMPARISON

The LSDP was retained.

All medicines that were funded remain on the LSDP. A new requirement was introduced for all medicines on the LSDP to be routinely reviewed after they are listed, in most cases after 24 months.

This did not occur. The LSDP remains unlegislated and is not within the PBS framework. The changes from 1 July 2018 included "streamlining administration" of the LSDP, but it is unclear how this streamlining occurred, other than through the development of a procedural guidance document to accompany the reforms. Negotiated pricing policies (like PBS medicines) must also be agreed and applied to new and existing medicines on the LSDP from 1 July 2018.

The name of the LSDP remains unchanged. Small changes to the eligibility criteria were introduced from 1 July 2018. These reforms failed to adopt the change to the eligibility criteria recommended by the IERG: allowing medicines to be funded through the LSDP based on a demonstrated reduction of level or duration of disability, rather than only an increase in life-expectancy.

An expert panel was established to provide more transparent and robust advice on cost-effectiveness and clinical efficacy to the Commonwealth's Chief

Sponsors can now request a pre-application meeting once the medicine was rejected by PBAC on the basis of cost-effectiveness. The meeting is the with the LSDP Secretariat only (Department of Health) and is intended to "ensure as far as possible that the information contained within a sponsor's application will address concerns that may arise through the LSDP Expert Panel consideration of the medicine".

The Government adopted the IERG's recommended definition of rare diseases (1:50,000).

The Government supported the intent of this recommendation and committed to looking for opportunities for discussion in future COAG or AHMAC meetings. There is no evidence that this took place.

The Government accepted this recommendation in-principle. It did not support the development of a fit for purpose data collection framework. The formal review process for all LSDP listed medicines (usually at 24 months) allows sponsors to contribute additional data. There is now latitude in the initial application assessment on whether "areas of uncertainty" could reasonably be addressed through an agreement for ongoing data collection.

The Government noted this recommendation and said these additional issues "may" be considered during or after the establishment of the new program.

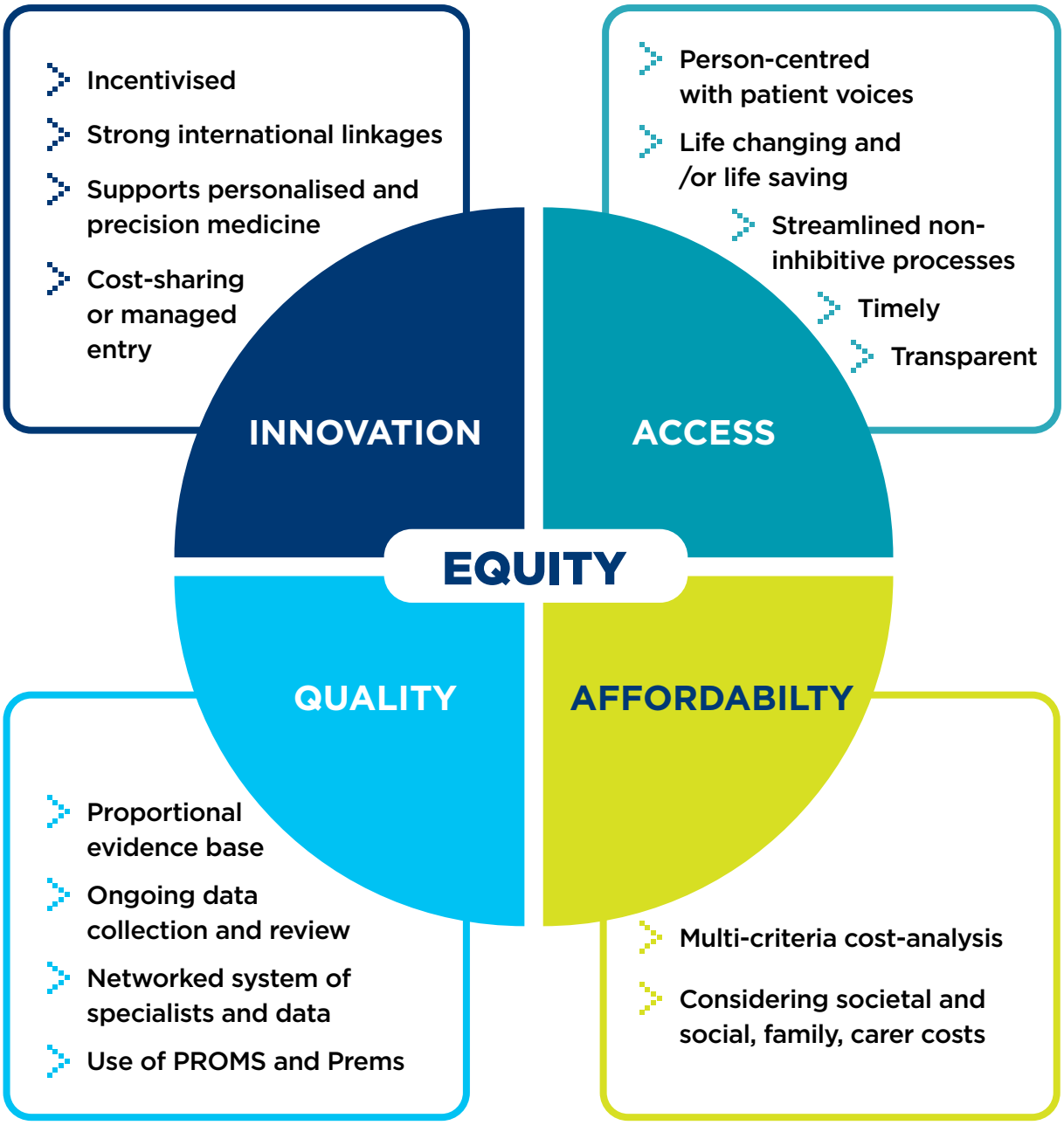
RARE DISEASE MEDICINES IN POLICY: AN EQUITY-CENTRED, PRINCIPLES-BASED APPROACH

All the reports into rare disease therapies have included calls for reforms to the national approach to medicines, to ensure that it is fit for purpose.[19] In essence what underpins these reports is the belief that people with rare diseases should have equitable access to medicines and treatments in Australia.

In acknowledgement of the significant changes in the Australian health and pharmaceutical landscape over the past two decades, a review of the NMP was announced in 2019. The Review commenced in August 2021 and invited stakeholder submissions throughout the consultation process. The Review presents an opportunity to ensure that any national, principles-based approach to medicines is set up to be able to appropriately consider the complexities and challenges of treating rare diseases.

The following matrix presents the principle of equity at the centre of four linked, equally weighted considerations that should underscore any national approach to medicines. Within each, a selection of key principles are offered which are needed to ensure it is fit for purpose to meet the needs of all citizens, whether they have a rare disease or not.

FIGURE 2 A MODEL OF EQUITY-CENTRED CARE



Why Equity-Centred?

Equity, as a concept, differs from equality because it acknowledges that sometimes we need to treat people differently to account for different characteristics and structural barriers. Equity does not support a one size fits all policy approach that upholds equal investment in all citizens, and instead looks to address individual differences so that outcomes are equitable.

Rare disease therapies differ from therapies for more common conditions in a number of ways, which makes applying the same policy settings inequitable:

- Small patient groups mean the cost of rare disease therapies is often higher as pharmaceutical companies have to recoup the costs of developing new therapies from a smaller population group;
- Small patient groups mean the quantity and quality of evidence is often not as high, and there is greater uncertainty around outcomes; and
- The new therapy maybe the only option for treating a life shortening and debilitating condition.

Previous research has shown that people are willing to pay more for interventions that make health outcomes more even.[20] Australian based research finds that people support allocating resources based on the severity of disease, the availability of alternative treatments, and diseases that are not related to lifestyle.[21] Rare disease therapies meet most, if not all, of these criteria.

Nearly all countries globally espouse support for achieving an equitable, universal health care system. While Australia prides itself on a public health system and a safety net that ensures everyone can access basic health care, the principle of universality does not extend to accessing safe and effective medicines for all conditions through the current NMP.

While equity is implied within the first pillar of the existing NMP, it is not adequately called out, and as a result, Health Technology Assessment (HTA) processes and reimbursement assessments have tended to be more rooted in upholding the principle of equality, rather than equity. Equality that results in inequity in health outcomes is problematic when applied to an estimated population of 2 million Australians living with one of a diverse group of rare conditions.

The ongoing misalignment and tension between striving for universal health coverage and treating rare diseases is well-documented. No health system can meet everyone's needs. However, prioritising groups that are disadvantaged or worse-off in the allocation of resources first is the way to move toward a truly universal health system.[22]

People who live with a rare disease experience the multiplier effect of their condition, whereby it leads to other vulnerabilities – such as low education attainment and low-income from poor labour market participation.[23] People with rare conditions often access supports and additional funding due to these impacts. These individuals and the economy would benefit more from access to a wider range of treatment options for the underlying rare condition.

The 2020 *National Strategic Action Plan for Rare Diseases* calls out the need for equity in HTA processes, naming it as a specific priority to "Enable all Australians to have equitable access to the best available health technology".[24] This priority sits in stark contrast if placed alongside the first pillar of the current NMP, which ties equality to affordability (i.e. access for all, but only if cost is deemed satisfactory).

But introducing 'equity' as the central principle in a revised NMP is not only a means to elevate the plight (or right) of those individuals living with rare disease to access effective treatments: it also forces a NMP to consider equity across all other domains. Other 'inequities' in the way medicines are accessed in Australia exist, for example differences in ease of access and baseline costs depending on where you live.

RECOMMENDATION 1

A revised National Medicines Policy should strive for an overarching objective of 'Equity' to underscore expanded considerations of affordability, quality, innovation and access as it relates to rare disease.

Equity-Centred Principles

If universal health cannot be achieved without equitable access, equity must be considered in its own right – and rather than a 5th principle or pillar, we suggest here that it belongs as the central tenet of any national health policy. Equity must underscore considerations of affordability, quality, innovation and access.

In a broad, thematic sense, these four principles are reflected directly in the four pillars of the current NMP. They represent four domains that any national medicine policy must attempt to traverse.[25,26]

Below we highlight how underlying processes, mechanisms or thinking beneath each of these four principles could be moved towards better alignment with the overarching objective of equity for all Australians with any condition. Below, we clearly draw out each of these points and what it would mean for the design implements of reimbursement systems for rare disease therapies.

EQUITY-CENTRED PRINCIPLES

AFFORDABILITY

- An analysis of cost that is multi-faceted, flexible, and does not happen in isolation of the other principles.
- Whole-of-person, whole-of-life factors considered, as well as the cost of no treatment.

QUALITY

- Flexible, adaptive data requirements that are proportional, or provisional approvals based on ongoing data commitments and reviews.
- Leveraging systems and creating linked networks and data registries to support increased assurance.

INNOVATION

- Innovation must be incentivised where regulatory processes or natural market forces are inhibitive.
- Strong international linkages ensure Australia is able to keep-up with international advances and bring new therapies or technologies to Australians sooner.
- The move toward more precise tailoring of medicines and therapies to the individual, including through genetics, should be supported.
- Cost subsidies and/or provisional approvals pending additional data should be available to support research and development of promising medicines or therapies.

ACCESS

- Ensuring the lived experience of patients is considered in conversations about access to medicines or therapies, including allowing the use of PREMs and PROMs in clinical trials.
- Elevating the importance of interventions that improve life outcomes and quality, as well as extending life.
- Striving for agile processes that are not duplicative or unnecessarily burdensome and can respond to system changes, ensuring Australians are not delayed access.
- A clear line of sight for industry and community into processes related to assessment.

While the NMP sets the overarching framework, changes to it will not result in improved access for Australians unless the HTA processes embedded in reimbursement programs follow suit.

RECOMMENDATION 2

We urgently call for a revised reimbursement pathway for rare and ultra-rare disease medicines, and that the upcoming HTA Review as part of the Strategic Agreement between Medicines Australia and the Australian Government commits to prioritising and actioning this pathway.

In the next section we compare Australia's system for reimbursement of rare disease therapies against international comparators, and to what extent they align with the Equity Centred Principles outlined above. This allows us in the final section to make a number of recommendations, drawing on previous reports in the Australian context and international examples of best practice, to reform the NMP so that it embodies the principles of equity and provides a coherent framework for funding rare disease therapies for people with rare diseases into the future.

AUSTRALIAN ACCESS IN A GLOBAL CONTEXT

The 2014 Report placed Australia on an international stage, with an analysis of the policies, frameworks and assessment processes that determine how individuals living with rare diseases access therapies in comparable countries, including Germany, England, and South Korea.

Despite the developments in the Australian landscape that we have already touched on, our new analysis shows that there hasn't been significant change in how Australia's medicines approval processes or overall access measure up within a global context, seven years on.

Overleaf we provide a brief overview of four of the countries included in our original report, before analysing how they each, and Australia, compare against our proposed Equity Centred principles. This analysis highlights how out of step the current Australian framework is from world leaders England, Germany (as representative of much of Europe) and is more aligned with the emerging economy of South Korea.

THE McKell Institute

ENGLAND

Where Australia was once at the forefront of HTA, England through its National Institute of Clinical Excellence is now at the forefront of best practice. Underpinning the approach to the funding of rare disease therapies, is the UK Strategy Rare Disease[27] which includes the establishment and support of a network of Centres of Excellence to treat, manage and research rare diseases.

The Highly Specialised Technologies Programme includes a separate process to evaluate technologies for very rare conditions. The Programme considers both technologies that are life saving and life improving and allows for lower standards of evidence to reflect the inherent difficulties in meeting the general requirements under HTA processes for rare disease therapies.[28] In addition, the Cancer Drug Fund provides a source of funding for cancer drugs under the English NHS providing faster access to new technologies and allowing subsequent evaluation where existing data is not adequate.[29]

GERMANY

Germany introduced its National Action Plan for people with rare diseases in 2013, following recommendations from the European Council in 2009 to all member countries.[30] The strategy includes a three-tiered structure for diagnosis, treatment and research: co-operating centres, centres of excellence, and reference centres. The latter two have since been organised into the framework of university hospitals, but co-operating centres have yet to be realised due to high individual workload that is required to set up, the low number of patients that would benefit, and lack of re-imbursement in place.[31]

Following European approval, therapies for rare diseases that are both life saving and life improving can be placed on the Germany market without restriction at a price set by the manufacturer.

Therapies for rare diseases are subject to different legislation from other therapies, where they are guaranteed a positive additional benefit providing that the value of sales at GKV expense (reimbursement) remains below 50 million euros per 12 months.[32] The General Benefits Assessment only decides the extent of additional benefit. Thus, manufacturers of orphan drugs can enter price negotiations without being subject to a comparative price.

SOUTH KOREA

In 2015, South Korea's Parliament passed the Rare Disease Management Act, requiring the Ministry of Health and Welfare to develop plans for the prevention, diagnosis, treatment and research into rare diseases. The Act defines these conditions as affecting fewer than 20,000 people.[33] Rare disease therapies that are life saving are not subject to the same pharmacoeconomic review as occurs with other drugs.

In 2017, the South Korea Ministry of Health and Welfare released a 2017-2021 road map for the diagnosis, treatment and management of rare diseases. This comprises four strategies around building an evidence base, establishing a basis for diagnosis and treatment, expanding diagnosis and treatment support, and strengthening R&D.[34] Underpinning the strategy are a network of Centres of Excellence, which under the plan were scheduled to increase from 4 to 12.

Using the matrix below we assess how Australia and these three international comparators compare against our Equity Centred Principles.

TABLE 2 HEADING TO COME

	AUSTRALIA	ENGLAND
AFFORDABILITY		
Multi-criteria cost-analysis	**No**	**Yes** – as part of benefit risk assessment processes
Considering societal and social, family, carer costs	**No**	**No**
QUALITY		
Proportional evidence base	**No**	**Yes** – in highly specialised technology guidelines made explicit
Ongoing data collection and review	**Yes** – routine review and data collection following LSDP listing	**Yes** – including as part of access to funding under the Cancer Drugs Fund
Networked system of specialists and data	**Part** - Registries and data collection developing but not coordinated through Centres for Excellence.	**Yes** – The UK Strategy for Rare Diseases underpins the Centre of Excellence approach that facilitates gold standard care, data collection and research.
Use of PREMs and PROMs	**No**	**No** - Used more broadly in the NHS but not in HTA assessment
INNOVATION		
Incentivised	**Part** – Significant support for research through National Health and Medical Industry Growth Plan, but lack of funding for access inhibiting development.	**Yes** – Accelerated Access Collaborative expediates access to innovative interventions to patients.
Supports personalised and precision medicine	**Part** - New Strategic Agreement between Government and Industry includes reforms to pay for innovative medicines and amend HTA procedures to account for advances in science.	**Yes** – Accelerated Access Collaborative a nd Cell Gene Therapy Catapult act to support early introduction of CGE Therapies
Cost-sharing or managed entry	**Yes** – agreements now possible under LSDP	**Yes** – agreements routine under access arrangements
ACCESS		
Life improving as well as life-saving drugs considered	**No** – Life Saving Drugs only given special consideration	**Yes** - Covers chronic and severely disabling conditions
Person-centred with patient voices	**Yes** - Patient voices are included in assessment processes	**Yes** - Patient views and opinions are a formal part of the HTA process
Timely	**No**	**Yes** - Core process takes 17 weeks, and if public consultation required 27 weeks.
Transparency in decision making	**Part** – findings are published	**Yes** - Consultees and commentators provided with full evidence, and appeal of decision allowed.

GERMANY	SOUTH KOREA
Yes – market access by the European Medical Agency includes MCDA	**No**
No	**No**
Y**es** – National Action Plan for Rare Diseases acknowledges need to generate best available evidence given limitations.	**Yes** – Economic Evaluation not required for cancer or rare disease therapies meeting certain criteria
Yes – as part of early access scheme data collection	**Yes** – country specific database established in 2009
Yes – Following the National Action Plan for Rare Diseases in 2013 a number of 'centres of expertise' have been established facilitating data collection.	**Yes** – Under a 2017-2021 road map for the diagnosis, treatment and management of rare diseases centres being established and data collection enhanced
Part - Mechanisms available but not routinely used as part of benefit assessment	**No**
Yes - Under European Medicines Agency PRIME program innovations that target serious diseases are supported to gain early release.	**Part** – under four pillar strategy support for R&D included
Yes – Funding available for individual patients from health insurers with current reforms to expand access	**No**
Yes - Contracts subject to specific conditions allowed between pharmaceutical companies and funders	**Yes** – including price volume agreements for access
Yes - All orphan drugs are reimbursed under the AMNOG benefits assessment, with few exceptions. Drugs are assumed to provide additional benefit.	**No** – Life saving drugs only given special consideration
Yes – Patient views included in benefit assessment	**No**
Yes – immediate access granted possible through health insurers, with benefit assessments undertaken post market access	**Yes** – new listing times have reduced to 10.9 months on average.
Yes - assessments and decisions are publicly available.	NA

This assessment demonstrates that world leaders, England and Germany's systems already embed our Equity Centred Principles into their policies for funding rare disease therapies. Australia's NMP needs reforms to match best practice, and ensure Australians have true universal access to new therapies.

RECOMMENDATION 3

Set best practice benchmarks against international standards to demonstrate how Australia performs in meeting it's obligations under the National Medicines Policy.

THE McKell Institute

REFORMING THE NATIONAL MEDICINES POLICY (NMP) TO EMBED EQUITY CENTRED PRINCIPLES

The current NMP with its four pillars has a dual focus on both health and economic outcomes, and provides the overarching framework for all medicines, so it is critical to consider how, or perhaps whether existing and emerging therapies for rare diseases can sufficiently exist within it.

Through its failure to address the complexity and special characteristics of rare disease therapies, the current NMP fails to realise its overall objective of meeting the health needs of all Australians.

This significant failure of universal coverage within the NMP has flowed through into the approval and reimbursement programs and processes that underpin it. The last seven years has brought some reforms to these programs and some new initiatives, aimed at improving access to therapies for rare disease. However, these changes have not resulted in any substantial changes for Australians living with rare diseases: Australians continue to have poorer access than comparable countries (see Appendix) and patients are still not represented in medicines policies and approval processes.

Each of the reviews and reports into the funding of rare disease therapies offers a different lens, but collectively have found the current policy framework does not result in the needs of Australian's living with rare diseases being adequately met. Below we assess the extent to which the current NMP is fit for purpose as it relates to rare disease therapies, drawing on the findings from these reviews and reports and make recommendations on how the Equity Centred Principles could be embedded.

These reforms would place Australia at the forefront of international efforts to meet the needs of people with rare diseases and would ensure that the potential of new therapies are fully realised.

PILLAR ONE

Timely access to the medicines that Australians need, at a cost individuals and the community can afford.

There is unmet need in the Australian community living with rare conditions and a simplistic understanding of cost is perpetuating that need.

Access to lifesaving or life-changing medicines is not a reality for many people living with rare but treatable conditions in Australia and in many cases, this comes down to how the 'value for money' of those medicines is defined and whether pharmaceutical companies can seek reimbursement (particularly where the medicine may not qualify under the LSDP because while reducing a disability, it does not extend life).

This is leading to inequities, with some people living with rare diseases accessing medicines by paying for themselves or through off-label use funded by hospitals on a case by case basis – but in most cases, the result is no access to these therapies at all.
Universal, subsidised access to any clinically effective medicine that an individual may need is aspirational, but not realistic: Governments must responsibly ensure the costs of medicines are not inflated and must also consider the sustainability of medicines spending in the context of an overall Health budget. However, there is significant and growing evidence that an overly simplistic conceptualisation of cost – one that is not fit for purpose in the context of treating rare conditions – is prohibiting or delaying the approval of subsidisation of critical medicines.

This was echoed strongly in the 2015 report from the Independent Expert Reference Group (IERG) review of the LSDP, where it was put to Government in the form of a key recommendation that "there is a need when considering the value of medicines for rare diseases to consider matters beyond cost-effectiveness".[35] Government's introduction of an expert panel to the LSDP assessment process in 2018 was intended to lead to more robust and transparent advice on cost, but this has yet to yield any significant broadening of cost considerations.

Under its Priority 2.4, the 2020 *National Strategic Action Plan for Rare Diseases* sets out a number of explicit actions directed toward Health Technology Assessment (HTA) processes and the need to build in capacity to allow for the complexities of assessing the suitability of new rare disease therapies for reimbursement.[36]

The 2020 McKell Institute Report *Living with Duchenne and Becker in Australia* offers a useful case study of how a more sophisticated, holistic and life-long understanding of 'cost' can factor into consideration of prioritising access to treatment for rare diseases. It quantifies the medical, but also familial and social costs of caring for a child with Duchenne or Becker muscular dystrophies into adulthood.[37] The NMP should allow for these types of patient-centred, condition-specific cost analyses to flow through into HTA processes.

One of the most significant failures of the current system to move beyond simplistic conceptualisations of cost-effectiveness is seen in its requirement that costs be framed against an increase in life expectancy; that is, that 'need' is only recognised if it is to access a life-saving therapy.

The Australian Government implemented a number of the IERG's 2015 recommendations, but the failure to fully address the narrow-focus on 'lifesaving' and not 'life-improving' creates significant ongoing unmet need. The Review highlighted that there is a need to elevate quality of life or 'life improving' measures (such as reduction in significant disability, slowed disease progression or stabilisation of condition) in the consideration of funding new medicines for rare diseases.

Inextricably linking cost-effectiveness with need in the 1st pillar of the NMP has served to mean that people living with rare conditions only get access to new therapies that are life-saving, which is different benchmark used for people with more common conditions.

While not a recommendation in our 2014 *Funding Rare Disease Therapies in Australia* Report, this is becoming a much more pressing issue as new therapies that can 'cure' the underlying cause of rare diseases become available and significantly improve life outcomes for impacted individuals.

RECOMMENDATION 4

Consistent with recommendations from the 2015 Review of the Life Saving Drug Program (LSDP), all Australians should have the ability access to treatments that improve their life, and the scope of the LSDP (or a revised ultra-rare disease reimbursement pathway) should be expanded to cover life improving/ changing therapies.

RECOMMENDATION 5

A revised National Medicines Policy should include a multi-faceted definition of affordability, considering whole-of-person and whole-of-life factors.

PILLAR TWO

Medicines meeting appropriate standards of quality, safety and efficacy.

'Appropriate' standards of quality, safety and efficacy must be realistic and proportional.

The NMP sets out that medicines must meet appropriate regulatory standards of quality, safety and efficacy and goes further in the explanatory materials to say that in this mission, Australia should strive to "be equal to that of comparable countries".

The data and evidence challenge that is faced by those undertaking studies to demonstrate clinical effectiveness of medicines to treat rare diseases is significant but is not a new problem. Small patient numbers to support clinical trials is both the most obvious and most substantial reason that evidence requirements for new medicines must be more proportional and realistic.

This can (and is) in part solved by expanding post-approval/post-market data collection and evaluation requirements, including medium and long-term efficacy. However, consideration must also be given to ensuring there is sufficient breadth in the types of data and nature of trials that are accepted in initial assessments of quality, safety and efficacy when treating rare diseases, when compared with other more prevalent diseases. Where clinical trial numbers are low and don't allow for the quantitative measures of efficacy possible from larger sample sizes, appropriate qualitative patient-experience measures should be recognised.

If Australians are to harness the promise of emerging cell and gene therapies, HTA assessments will be forced to consider alternative and even single-patient measures of quality, safety and efficacy. One option to have adaptive clinical trials replace more traditional methods, such as randomised-controlled trials to establish a solid evidence base.[38] *The Inquiry into Approval Processes for New Drugs and Novel Medical Technologies in Australia* (the Inquiry) findings will hopefully offer concrete points of reform to ensure that processes can accommodate the horizon of personalised therapies.

Linked to this, while some gains are being been made in terms of expanding what type of data may be accepted, strengthening how data is collected and shared presents another opportunity that is yet to be fully realised. Expanding the current use of patient and data registries, and ensuring they are linked both nationally and internationally, could support the evaluation of existing medicines (surveillance) but also identify potential patients for clinical trials.

While the 2nd NMP pillar calls for appropriate standards, it is not clear that a static 'one-size-fits-all' approach to standard-setting becomes inappropriate where it results in perverse outcomes for vulnerable Australians. Without this protection within the NMP, its implementation has translated into HTA processes that do not have the necessary flexibility to allow proportionality and case-by-case consideration of data. As a result, the NMP is failing to underpin equitable access to new therapies for Australians living with rare disease.

RECOMMENDATION 6

The National Medicines Policy should underpin a flexible, transparent, and person-centred reimbursement process that uses innovative methods to determine value and includes the use of real world evidence and flexible financial arrangements to address uncertainty.

PILLAR THREE

Quality use of medicines.

‘Quality use’ is not a standarised across all medicines and rare conditions demand a tailored understanding and approach.

Perverse impacts stemming from the low patient numbers associated with each rare condition run as recurrent theme through an analysis of Australia’s first NMP – and ensuring quality use of medicines is no exception.

In a similar vein to the second pillar, the inherent differences in rare disease therapies demand a tailored, flexible approach to determining whether quality use standards can be met for a prospective therapy.

One difference in the management of rare conditions is the clinical relationship between prescribing specialists and patients. Rare conditions usually involve a longstanding relationship with a specialist lead clinician which lends itself to a more intimate understanding of the patient’s diagnosis and prognosis. This itself becomes an intrinsic protective factor in ensuring the appropriate use of available therapies. It also raises the prospect of safely enhancing access to ‘off-label’ medicines which have been approved for more common conditions, but not for a rare disease indication.[39]

While we would encourage that any assessment of appropriate clinical management for emerging rare disease therapies is realistic and proportional, we must point to a fundamental capacity issue within the Australia’s healthcare system for managing rare diseases, which becomes a significant limiting factor.

The 2015 review of the LSDP recommended the development of clinical centres of expertise,[40] and yet in 2021, the continued absence of a coordinated, networked approach to diagnose, manage and treat rare conditions like those seen internationally is a missed opportunity to create systematic assurance of the quality use of medicines.

Care pathways that are networked through recognised ‘Centres of Excellence’ (CoE) with leading specialised clinicians appointed to develop and oversee the care of groups of patients would provide certainty around the prescribing of approved medicines. These CoE could be easily linked with their international equivalents, to create even more opportunities

for benchmarking and safeguarding quality care and medicines prescribing.

Managing rare diseases through a 'hub' model of connected, coordinated CoEs would have the added benefit of easily creating and maintaining patient data registries. These registries also provide opportunities for Australian patients to qualify for international clinical trials.

Significantly, the 2020 Strategic Action Plan sets out a number of actions to strengthen the current rare disease workforce, including the establishment of a national peak organisation and network of regional centres of excellence.[41] This will provide the foundation for building greater capacity for clinical management of emerging therapies.

RECOMMENDATION 7

In placing equity at the centre of the National Medicines Policy, the system should evolve to accommodate rare and ultra- rare diseases. A Commonwealth statutory authority for Rare Diseases could provide the national oversight of a network of Centres of Excellence.

PILLAR FOUR

Maintaining a responsible and viable medicines industry.

A 'responsible' and 'viable' medicines industry must be one that is supported to pioneer new frontiers of innovative and personalised medicines.

Innovation cannot continue be a casualty of responsibility and viability in the treatment of rare diseases. The NMP should articulate how to appropriately balance these elements.

Domestic policy and administrative approval processes are interrupting natural market forces and Australia is not being seen as an attractive option for clinical trials for new medicines and novel medical technologies, particularly those for treating rare diseases.

Importantly, the 2021 Inquiry will have a particular focus on the approval processes for the treatment of rare diseases and conditions where there is high and unmet clinical need.

While the third pillar upholds a responsible and viable industry, it is viewed by industry and patient and consumer groups to too often be at the sacrifice of innovation. Australian consumers are recognised as joint 'partners' of the NMP and yet there are widespread calls in submissions to the Inquiry for patients with lived-experience to be able to meaningfully contribute to the assessment of medicines that would change or save their lives.

Multiple submissions into the Inquiry have noted the absence of Patient Reported Outcome Measures (PROMs) and Patient Recorded Experience Measures (PREMs) from categories of acceptable evidence in clinical trials and studies.

The *2020 Strategic Action Plan* calls for collaborative, international research into rare diseases prioritised and incentivised, which is an important first step to removing barriers for industry innovation. But Governments will need to do more to attract research and clinical trials and to make Australia a viable market for medicine sponsors, especially to ensure HTA and reimbursement processes no longer act as a deterrent to pharmaceutical companies.

The 2020 *Living with Duchenne and Becker in Australia* Report examined the importance of clinical trials for rare conditions, such as Duchenne and Becker muscular dystrophies, and offers a very useful analysis of some the barriers which prevent sponsor organisations seeing Australia as an attractive location for conducting trials.[42]

Removing these barriers will need to be a multi-pronged approach, including enablers such as incentives, cost-sharing or managed entry arrangements, as well as strengthening Australia's linkages and reputation within a global medicines market.

RECOMMENDATION 8

There should be greater focus on innovation under the National Medicines Policy, as a means to ensure more equitable access, including removing barriers to research, development and trialing of new therapies in Australia.

CONCLUSION

In the seven years since our 2014 Report placed the funding of rare disease therapies on the public policy agenda, there has been much progress in the understanding of, and approach to, rare disease across our health system.

In this time frame, only two new rare disease therapies have been funded under the LSDP, meaning Australians have missed out on accessing at least nine other new medicines available in peer countries. These therapies would have provided Australian patients with significant health benefits, that patients in other countries have enjoyed during this period.

However, Australia's implementation of 'universal health care' still only extends to a universal set of health care services and treatments, rather than universal access to the health services and treatments needed to meet basic health care needs.

This distinction is paramount and in this report we argue that embedding the principle of equity into a new National Medicines Policy (NMP) could help move Australia toward a truly universal health system.

This principle of equity should not be seen as undermining the current principles underpinning the NMP, but rather expanding and evolving them to ensure our health system is truly universal.

The review of the NMP is an opportunity for the Australian Government and stakeholders to help guarantee that, going forward, national health policies are framed in the context of ensuring all Australians have equal access to treatments and services that improve or save their lives. This could be achieved through embedding Equity Centred Principles into the new NMP framework.

From here, more meaningful reform to the programs and processes that the NMP underpins must follow, hopefully off the back of momentum from findings from the Inquiry into assessment and approvals. It is only through this level of systemic change that we can hope to make Australia one of the best countries in the world to live in for the one in 12 Australians living with a rare disease.

APPENDIX

INTERNATIONAL COMPARISON OF THE FUNDING OF NEW RARE DISEASE

DRUG	BRAND NAME	INDICATION
LISTED IN AUSTRALIA		
Migalastat	Galafold	Fabry Disease
Nitisinone	Nityr	Hereditary tyrosinaemia type 1 (HT1)
Cerliponase alfa	Brineura	Late-infantile onset Batten disease (CLN2)
Difference in Listing Time (months)		
NOT LISTED IN AUSTRALIA		
Eliglustat	Cerdelga	Type 1 Gaucher Disease
Asfotase alfa	Strensiq	Paediatric_-onset hypophosphatasia
Asfotase alfa	Strensiq	Perinatal and infantile onset hypophosphatasia
(gene therapy)	Strimvelis	Adenosine deaminase deficiency-severe combined immunodeficiency
Burosumab	Crysvita	X-linked hypophosphataemia in children
Inotersen	Tegsedi	Hereditary transthyretin amyloidosis
Patisiran	Onpattro	Herediatry transthyretin amyloidosis
Volanesorsen	Waylivra	Familial chylomicronaemia syndrome
Metreleptin	Myalepta	Lipodystrophy
Onasemnogene	Zolgensma	Spinal muscular atrophy
Caplacizumab	Cablivi	Acute acquired thrombotic thrombocytopenic purpura
Anakinra	Kineret	Adult Onset Stills Disease

Source: Department of Health website Australia, NICE Website UK and EMA Website Germany.

THERAPIES SINCE 2015

AUSTRALIA	ENGLAND	GERMANY
Nov-18	Jan-17	May-16
May-19	Not recommended	Jul-18
May-19	Oct-19	May-17
	8.5	21.3
Rejected for LSDP	Jun-17	Jan-15
Rejected for LSDP	Aug-17	Aug-15
LSDP recommended 2017 agreement to fund not yet reached	Aug-17	Aug-15
No record of MSAC submission	Feb-18	May-16
Not recommended	Oct-18	Feb-18
No record of PBAC submission	May-19	Jul-18
No record of PBAC submission	Aug-19	Aug-18
No record of PBAC submission	Oct-20	May-19
No record of PBAC submission	Feb-21	Jul-18
Deferred	Jul-21	May-20
Rejected by PBAC July 2021	Dec-20	Aug-18
Not recommeded for this condition	Jul-18	Sep-18

UNDERSTANDING THE COMPLEX & CHANGING LANDSCAPE OF RARE DISEASE THERAPIES

Reforms and Initiatives 2015-2021

2018 REFORMS TO THE LIFE SAVING DRUG PROGRAM

In 2018, the Australian Government introduced a number of reforms to the LSDP in response to the 2014 Independent Review however failed to fully implements its findings. Table 1 in the report provides a detailed overview Table 3.

2018-19 THERAPEUTIC GOODS ADMINISTRATION (TGA) ORPHAN DRUG DESIGNATION

According to the TGA, orphan drugs treat life-threatening or seriously debilitating conditions with very low prevalence – no more than 5 in 10,000 people would be accessing the drug if it were to become available.

Since July 2019, the PBAC has allowed for an 'orphan exemption' where drugs classified as orphan drugs by the TGA are not required to pay an evaluation fee for their first submission to the PBAC to gain PBS status within 12 months of the drug being registered by the TGA . This is a financial incentive to reduce cost barriers to the assessment and listing of medicines to treat rare conditions.

THE 2015 MEDICAL RESEARCH FUTURE FUND (MRFF) AND THE 2020 AND 2021 RARE CANCERS, RARE DISEASES AND UNMET NEED GRANT OPPORTUNITIES

The MRFF was established in 2015 and provides an ongoing funding stream for medical research and medical innovation. The capital of the MRFF is invested, with the earnings (interest) used to create grants of financial assistance for medical research and medical innovation over the long term.[43] The fund has grown from just over $3 billion in 2015 to $20 billion in 2021.

An independent committee consults the public every two years and advises Government on research areas that are national priorities. A *Clinical Trials Activity Initiative* has been established which aims

to improve patient access to clinical trials and to enable researchers to bring international trials to Australian patients. Under this Initiative, $25 million was available in 2020 for a specific Grant Opportunity targeted to clinical trials into the treatment of *Rare Cancers, Rare Diseases and Unmet Need*. This Grant Opportunity was open only to approved 'Administering Institutions' of the National Health and Medical Research Council (NHMRC).

In 2021, a further $70 million is available under a new, similar Grant Opportunity. Applications opened in May 2021 and closed in August, with assessment anticipated in November 2021.

While this targeted investment in research and clinical trials for rare disease is a significant step forward, it highlights the importance of ensuring that policy settings and processes on the path to accessing new therapies are right – otherwise the benefit for Australians will not be able to be fully realised.

Reviews and Reports

2014 INDEPENDENT REVIEW OF THE LIFE SAVING DRUGS PROGRAM

In 2014 an Independent Expert Reference Group (IERG) was formed by the Australian Government to undertake a consultation and review of the Life Savings Drugs Program (LSDP). It made 10 recommendations to Government in its final report (see Table 3), which while delivered in 2015, was not publicly released until 2018 – close to two and half years later.

THE 2020 MCKELL INSTITUTE REPORT LIVING WITH DUCHENNE AND BECKER IN AUSTRALIA

This report put a spotlight on a subset of rare diseases known as Duchenne or Becker muscular dystrophies – genetic, muscle-wasting conditions that affect around 1000 Australians.

The report explored the gaps in the existing healthcare system and the costs facing families whose family members live with Duchenne and Becker, undertaking a cost of disease analysis, and surveying 150 families and individuals experiencing the impacts of the disease.

THE NATIONAL STRATEGIC ACTION PLAN FOR RARE DISEASES, 2020

Our 2014 Report called for the Australian Government to develop a National Strategy for Rare Diseases. In 2020, *The National Strategic Action Plan for Rare Diseases* (the Plan) was released as a joint publication by the Australian Government Department of Health and Rare Voices Australia, in response for the need for a nationally coordinated response to rare disease treatment in Australia.

The Plan offers a comprehensive, collaborative, and evidence-based approach to achieving the best possible health and wellbeing outcomes for individuals living with rare diseases in Australia.

IT IS BUILT ON THREE PRINCIPLES:

1. **Person-centred**
2. **Equity of access**
3. **Sustainable systems and workforce.**

THE PLAN SETS OUT THREE CRITICAL PILLARS AS THE FOUNDATION TO DELIVERING OUTCOMES:

1. **Awareness and Education**
   - Increase awareness of rare diseases and relevant prevention measures
   - Ensure Australians living with rare diseases have access to information and education
   - Develop National Rare Disease Workforce Strategy
2. **Care and Support**
   - Provide integrated and appropriate rare disease care and support that is both person and family centred
   - Ensure diagnosis is timely and accurate
   - Facilitate increased reproductive confidence
   - Ensure equitable access to the best health technology
   - Integrate mental health, and social and emotional wellbeing into rare diseases care and support

3. Research and Data

- Coordinated and collaborative data collection for monitoring, informing care management, research, and health system planning
- National strategy to foster, support and drive research for rare diseases
- Ensure research is collaborative and person-centred
- Translate research and innovation into clinical care

A NUMBER OF THEMES ARE SET OUT IN THE PLAN THAT WILL DEFINE PROGRESS:

- National leadership, coordination and consistency
- Prioritising the systematic building of knowledge, evidence and expertise
- A person-centred approach and ongoing collaboration
- Measuring rare diseases
- Sustainable systems and workforce
- Stakeholder collaboration
- State, national and international partnerships as well as cross-sector collaboration
- Progress early implementation wherever possible

The Plan presents implementation mechanisms that could be repurposed from international systems to begin to operationalise many of its strategic priorities, or to further mature existing components of the Australian system. The Australian Government has provided funding to implement the Strategic Action Plan.

THE 2021 EVOHEALTH WHITEPAPER: CELL AND GENE THERAPIES – RISING TO THE CHALLENGE

The 2021 EvoHealth White Paper examines how equipped the Australian health landscape is for the many Cell and Gene Therapies (CGTs) that are anticipated to pursue funding in the coming years. It looks at the community expectations of Government to enable CGTs to address the urgent, unmet need of many Australians. The report challenges the Government to look internationally at how other countries, such as the UK, are ensuring their systems and approval processes do not produce health inequities.

THE INQUIRY INTO APPROVAL PROCESSES FOR NEW DRUGS AND NOVEL MEDICAL TECHNOLOGIES IN AUSTRALIA – SUBMISSIONS CLOSED JUNE 2021

Following a referral on 13 August 2020 from the Minister for Health, the House of Representatives' Standing Committee on Health, Aged Care and Sport is inquiring into, and reporting on, the current approval processes for new drugs and novel medical technologies in Australia. Public submissions closed 17 June 2021. The Inquiry has a focus on those medicines for the treatment of rare diseases and conditions where there is high and unmet clinical need.

FOOTNOTES

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