



Life Course Immunisation

Improving adult immunisation to
support healthy ageing

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Executive Summary

In winter 2010-11, the annual 'flu vaccination campaign hit the headlines for all the wrong reasons including initial slow take-up, followed by a rush, leading to supply shortages. However, this helpfully raised the debate about how, and who, we target for vaccination in the UK, in particular in relation to adult immunisation.

While immunisation is often perceived as the domain of children, rather than adults, it is in reality life course, with different vaccinations being appropriate at different stages of life.

To contribute to the debate on a strategy for adult immunisation, the International Longevity Centre UK (ILC-UK) gathered a group of experts in the fields of ageing, public health, and immunisation to discuss the future of adult immunisation. ILC-UK drew on previous work led by the Alliance for Health and the Future, of which we were a member, which published a policy brief *The Impact of Lifecourse Vaccination on an ageing population* in 2009¹.

At the ILC-UK meeting, which took place on 24 March 2011, different stakeholders considered how adult immunisation in the UK could be improved, looking the problems which occurred over the winter and the childhood immunisation programme, as well as addressing the supply, demand and accessibility of vaccinations for adults, public immunisation campaigns, the role of the media and incentives for healthcare professionals, among other topics. Discussions also considered recommendations in the policy brief previously developed by ILC-UK and others on life course vaccination in particular measures to improve vaccination rates amongst the over 50s.

Following the event, ILC-UK developed a number of recommendations for improving adult immunisation in the UK including:

- The need to explicitly promote the concept of life course vaccination.
- Using age-group based as well as risk-group based recommendations including, beginning with recommending influenza vaccination for all over 50s and making it available on the NHS.
- The introduction of a vaccination record card (paper and/or electronic) for adults.
- Expanding the range of settings which provide vaccination to include for example community pharmacies.
- A trial of workplace vaccination for workers over 50.

¹ *Impact of Life Course Vaccination on an Ageing Population*, Alliance for Health and the Future/ILC - USA, 2009 <http://www.ilc-alliance.org/book/life-course-vaccination-impact-life-course-vaccination-ageing-population.html>

Introduction & Background

ILC-UK wanted to capitalise on the renewed space for discussion and to consider the UK's approach to immunisation – including why we target certain groups for vaccination, and whether those not targeted by the National Health Service (NHS) should be able to obtain vaccines privately. We wanted to set these discussions in the context of our ageing population and growing pressures on the health service.

The Impact of Lifecourse Vaccination on an ageing population policy brief noted the gap between recommendations for vaccinations among older people and vaccination rates in Europe. The Alliance for Health and the Future noted that older Europeans are not well vaccinated and therefore not well protected against vaccine preventable diseases.

The policy brief called for a new approach to vaccinating adults – taking a life course approach using both risk group and age group recommendations. It argued that longer working lives and the increase in long term conditions in later life strengthened the case for this approach. And it made the case for more attention to be paid to vaccinating health care workers and carers, not only to protect them from illness which is costly, but also to leverage their potential to act as advocates for immunisation.

More recently, on the ILC-UK's blog² in January 2011, we asked whether there should be a role for employers and the private sector in delivering vaccinations, highlighting the relatively low cost of immunisation compared to lost productivity when staff are absent due to illness.

² <http://blog.ilcuk.org.uk/2011/01/12/the-flu-crisis-why-we-need-an-adult-immunisation-strategy/>

Summary of Discussions

Learning from this year's winter flu season

In discussion the following issues were highlighted:

- Vaccine supply and demand issues during the 2010/11 'flu season, were primarily the result of the unpredictable nature of the virus itself. Few experts would have predicted the return of the H1N1 serotype given the high levels of immunity achieved among young children as a result of the swine 'flu vaccination campaign – around a third of children in London and nearly half outside London were vaccinated – and its return created a non-standard pattern of demand for vaccination³.
- The mismatch between supply and demand was a genuine issue. However media coverage created a wider, and often inaccurate, sense of the problem – for example by creating a disproportionate level of concern about risk to children under 5 years old.
- The UK benefits from one of the world's best data collection systems on vaccination, which allowed week-by-week evaluation of 'flu vaccine take-up, enabling effective management of the campaign.
- In Scotland there were no problems with supply and this was felt to be a result of the changes made following the Scottish Government's review of its 'flu vaccination programme in 2008⁴.
- The experience of 2010/11 raised questions about how best to order and distribute vaccinations to healthcare professionals, how to ensure those targeted for vaccination take up their entitlement, and the role of the media and about other sources of public information⁵.

Organisation of the vaccination programme

The UK's leading edge ability to track its influenza vaccination programme, with close to real time data on target group uptake, allows the Department of Health (DH) to be responsive to what is happening on the ground. For example, in November 2010, when data showed that coverage was falling among the over 65s and in other at risk groups, the DH was able to work with Primary Care Trusts to improve coverage.

A number of key observations were made about coverage:

- Levels of influenza vaccination are consistently higher in Scotland than in England. In the follow-up to the Aldridge review on seasonal influenza in Scotland⁶, changes were made to address supply, uptake and governance of vaccinations. Ensuring that immunisation was high on the agenda of Scottish Health Boards was thought to be a factor for success.

³ <http://www.parliament.uk/deposits/depositedpapers/2011/DEP2011-0060.pdf>

⁴ *John Aldridge's Review of Seasonal Flu Vaccination Programme* July 2007, Scottish Government (web only: <http://www.scotland.gov.uk/Publications/2007/07/Review-of-Seasonal-FluJA>); and *Implementation of the Aldridge Review of the Seasonal Influenza Vaccination Programme in Scotland*, September 2008, Scottish Government (web only: <http://www.scotland.gov.uk/Publications/2008/09/10132504/0>)

⁵ <http://www.publications.parliament.uk/pa/cm201011/cmhansrd/cm110110/debtext/110110-0001.htm#1101109000004>

⁶ <http://www.scotland.gov.uk/Publications/2008/09/10132504/0>

- Estimates of uptake in England may be inaccurate due to problems with gathering data from areas with high population mobility, like London, leading to levels of uptake being underestimated.
- Recent figures show that some 5 million people missed out on their ‘flu vaccination in 2010-11 and the Chief Medical Officer has now called for an improvement next year⁷.

There are key differences in the systems for ordering vaccine throughout the UK – in Scotland community pharmacists order vaccine, in England it is done by GPs, and in Northern Ireland it is centralised. The central distribution of the leftover pandemic vaccine in England, following supply shortages of the seasonal vaccine, raised questions as to whether England should move to a centralised system of vaccination procurement and distribution (as exists already for the national childhood immunisation programme), and this is now under review⁸.

Discussants felt that, if GPs were to continue to order vaccines, then they should be given better support in estimating the quantities needed. This was seen as a key learning from the introduction of new vaccinations, when estimates had not always been accurate.

When issues of supply shortage arise it is important that available stocks are distributed fairly and not simply to those who “shout loudest”. In Scotland there is a contingency supply managed centrally to ensure this happens.

Post meeting note: Discussions with representatives of pharmaceutical wholesalers highlighted the desire to better leverage existing distribution networks for vaccines including in the event of problems as occurred in the 2010-11 flu season.

As mentioned above, the Government is now consulting on the system of procurement and distribution of ‘flu vaccines.

Improving access to vaccinations

Discussants highlighted the possibility of widening access to vaccination through increasing the range of vaccination settings – in particular the potential of a greater role for community pharmacies. In discussions on the recent pilot on the Isle of Wight⁹, several key considerations were highlighted:

- Allowing a wider range of providers to give vaccinations could improve uptake among working adults (including those in “at risk” groups), and health and social care professionals, as visiting a pharmacy for vaccination would fit better with their lifestyles.
- Widening access must be undertaken in a way that would ensure that current levels of data collection are maintained and the ability to track immunisation nationally is not weakened. It

⁷ http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_125091

⁸ Department of Health formal consultation on the procurement of seasonal flu vaccines in England (launched 25 May 2011): http://www.dh.gov.uk/en/Consultations/Liveconsultations/DH_127078

The Scottish Government has also undertaken a consultation on vaccine supply and distribution in spring 2011 as a follow-on action to the 2008 Aldridge review on seasonal influenza vaccination.

⁹ *Isle of Wight Community Pharmacy Seasonal ‘Flu Vaccination: An End of Service Evaluation Report for the NHS Service including Cohort Analysis and Patient Reported Outcome*, Pinnacle Health Partnership LL <http://www.hampshireipc.org.uk/index.asp?type=news&id=249df>

may be necessary, for example, to look at how community pharmacies could feed into data collection systems, to enable the same level of data capture as is currently achieved by GPs.

- All those supplying vaccinations, whether on a private basis or as part of NHS provision, should use common or compatible information systems.
- “New” providers can also play a role in encouraging people to get vaccinated, taking care that promotional efforts are targeted at those who will benefit the most.

Discussants also highlighted the variations within and between different immunisation programmes and argued that these should be used as an opportunity for learning. Key variations exist:

- Between the delivery models for different vaccinations; and
- Between the take up rates in different areas for the same vaccinations – for example in Scotland 66% of pregnant women were vaccinated against ‘flu as compared to 37% in England; and occupational uptake in Scotland varied from 37 to 90%.

Incentives

Incentives for healthcare professionals were seen as crucial in ensuring immunisation programmes are successful.

In Scotland the introduction of central targets and monitoring for immunisation was helpful in ensuring it was prioritised by Health Boards. In England similar targets for Strategic Health Authorities led to improvements in coverage.

Concern was expressed that proposed NHS reforms could fragment responsibility for immunisation, or reduce its priority. In relation to targets, it was expected that coverage would continue to be measured, as this is used as a proxy for outcomes.

However, concerns were raised that funding squeezes may reduce the incentive for GPs to prioritise immunisation.

Some discussants queried whether it should be compulsory for GPs to take part in the immunisation programme, while others argued that central provision achieved a similar effect by taking away the barrier of cost to GPs.

It was hoped that the requirement to fund all vaccines recommended by the Joint Committee on Vaccination and Immunisation (JCVI), as both clinically effective and cost-effective¹⁰, would protect the immunisation programme from the current funding squeeze.

The role of the media and public information

The role of the media in encouraging or discouraging people from taking up immunisations was a subject of considerable discussion.

During the winter 2010/11 ‘flu season, many discussants were repeatedly contacted by the media, whom it was often felt were deliberately seeking divisions amongst different stakeholders in order to create scare stories. Other discussants felt the media had developed a specific agenda to try to change policy on vaccination for children under 5.

¹⁰ http://www.legislation.gov.uk/uksi/2009/38/pdfs/uksi_20090038_en.pdf

Media coverage led to a skewed perception of the risk from 'flu, which may have contributed to lower uptake of the vaccine within target groups.

The reality was that deaths were three times higher in the 45-64 age group than in the under 5 age group¹¹, and those with a risk factor for 'flu were 20 times more likely to die than the general population.

Action is needed to ensure a closer match between the reality and perception of risk, and a better translation of this understanding into action, so that people who need vaccinations come forward. In discussion the following points were raised:

- All those with an interest in immunisation must to speak with one voice in public. To achieve this there must be open lines of communication behind the scenes, particularly between the DH, health professionals, the vaccine industry and the third sector, including patient and professional bodies. It was noted that sometimes the media is more likely to trust a line offered by the third sector than by the Government.
- Discussants also raised the possibility of a more formal vaccination coalition of different stakeholders to ensure joined up messaging with government.
- More should be done to improve public information through the media, but also through other channels people use as information sources.
- Communications planning must recognise the diversity of the populations being targeted. For example the older adult population contains two generations who often have different levels of health and different perceptions of their risk –so tailored communications are required. We must also reach out to isolated groups – such as those living in care homes and housebound people whose access to medical care may be poor.

Discussants noted the crucial difference between awareness of an issue and behaviour change. This difference was brought into focus by the decision not to run a national campaign on influenza immunisation. This was part of a blanket Government policy against centrally funded information campaigns, but forced questions to be asked about the impact of such campaigns on immunisation take up rates.

The impact of a public information campaign, or other social marketing, depends on how people view vaccination – if people see it as a purely medical procedure then information coming from health professionals may be more effective, but if it is seen as a consumer good then social marketing may be appropriate.

Opinion research undertaken for the DH reveals that parents of young children, consistently state that they most trust information on vaccination coming from health professionals: with the most trust being expressed for GP and practice nurses, followed by pharmacists and government sources. Very few respondents trusted the information they received via the media¹². Experience to date suggests that one of the most effective channels of encouraging vaccine uptake is direct contact from GP to patient.

¹¹ http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1296687416042?p=1287147958032

¹² http://www.dh.gov.uk/en/Publichealth/Immunisation/Marketresearch/DH_108600

Given the vital role of healthcare professionals in communicating the benefits of vaccination, the low levels of immunisation amongst this group is a cause for concern. Several participants reported that some healthcare professionals express concern about the side effects of vaccination, which is something that must be addressed if they are to be effective in encouraging patients to be vaccinated.

Cost effectiveness

While the Joint Committee on Vaccination and Immunisation (JCVI) recommendations on vaccination, which explain decisions from a clinical and cost-effectiveness perspective, are publicly available, discussants thought that this information may not always be in a format suitable for the general public who may wish to better understand why the NHS targets certain groups for vaccination and not others. More easily digestible information on vaccine recommendations could also help the private sector to judge what role it might play in providing vaccinations and informing individuals deciding whether to buy a vaccination privately, by clarifying the reason why they had not been offered the vaccination by the NHS.

One of the complexities of cost benefit calculations in relation to vaccination is that benefits do not just accrue to the immunised individual, but also to the wider community, through indirect protection known as ‘herd immunity’, which also has to be factored in.

Concerns were raised about the failure of the NHS to properly weight the costs of vaccination against the savings made in treating those who would otherwise become ill. Discussants raised the issues of separation of funding streams for primary and secondary care and the problem of short-termism in public sector funding decisions.

Whilst the JCVI bases its decisions on lifelong cost benefit projections, discussants were concerned that individual health authorities may not take such a long term view.

Targeting “at risk” groups vs. age based approaches

At present, most adults under 65 are not targeted for vaccination unless they fall within a specific “at risk” group. Many of the conditions that fall in to an “at risk” category develop before the age of 65, probably most notably after the age of 50. The ILC policy brief on life course vaccination notes that uptake of vaccine is lower in at risk groups than age based groups.

Discussants raised a number of concerns about this categorisation:

- The phrase “at risk” was thought to be poorly understood, and many who were defined as “at risk”, for example working adults who successfully manage a long term condition, would not relate to this definition of themselves.
- Many of those who are “at risk” struggle to take up their entitlement – for example because making time to go to the GP is difficult for those in work.

This raises a number of questions including:

- Whether it would be more effective to offer more vaccinations on an age-group basis, particularly given the growing numbers who are living with well-managed long term conditions.

- Whether there is a better way to communicate with those who are “at risk”, and
- Whether we should open up more delivery channels for vaccination – such as community pharmacies, and workplaces – to make getting a vaccination easier.

Learning from the paediatric immunisation programme

Discussants agreed that the UK has a very strong record in childhood immunisation, with high rates of coverage achieved despite recent scares, for example on MMR. A number of key features of the programme were identified:

- The programme is delivered through the GPs and health visitors with whom parents have existing contact and who can provide information and reassurance.
- A key factor in the success of the programme is that it is properly funded, which means that GPs can get involved without detriment to other practice responsibilities.
- GPs are not the only professionals involved. The programme relies on the wider health care community and may therefore be affected by cuts, NHS cost savings, and other cost-saving measures.

The recent experience of delivering the new cervical cancer (Human papillomavirus - HPV) vaccination programme was discussed. The following points were highlighted:

- The bulk of the programme was delivered through school nurses, and this was very effective – the UK has world leading HPV coverage.
- However, there was no single system for “catch-up” vaccination for those who had missed being vaccinated at school, which led to problems getting the message out to the public. Some discussants felt that this was the result of a short sighted and politically motivated desire to cut costs.
- Experience with Meningitis C vaccination suggested having a clear national strategy in place early is important in ensuring a successful programme including catch-up vaccination.
- The third sector played a key role in the roll out of the HPV programme – e.g. providing the curriculum for schools – and this should be a model for future vaccination programmes.

Where to next?

Discussants agreed that, whilst the UK already has a strong immunisation programme, there was no room for complacency, and there should be a drive for continual improvement.

In relation to influenza the possibility of extending age-group based vaccination is constantly examined. Children under five and those aged 50-64 were highlighted as age-groups currently under consideration by the Health Protection Agency¹³.

The concept of a life-course vaccination strategy was discussed. Many experts already perceive the UK’s programme as “life course”, however the wider public sees immunisation primarily as a childhood phenomenon.

¹³ http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@ab/documents/digitalasset/dh_128453.pdf (page 3, note IV, point 7, bullet point 6)

In relation to widening access to NHS funded immunisation, particularly to the over 50s, discussants felt it was vital that cost effectiveness remained a key consideration. In this regard it would be important to develop effective measures of the benefit of herd immunity and other related costs including sick leave and lost productivity.

Given the important role of healthcare professionals in communicating with members of the public about vaccination, improving healthcare professional buy-in to the programme, including getting vaccinated themselves, was considered important. Some discussants suggested incorporating a requirement to be vaccinated into professional standards, or introducing a healthcare professional vaccination record card.

There was enthusiasm for reinvigorating the role of health visitors in communicating about, and providing, immunisation – with moves to renew the profession¹⁴ potentially creating an opportunity to do this.

Discussants also wanted to see more done to share best practice between health professionals. It was noted that some GP practices achieved vaccination rates at close to 100%. It should be possible to nurture these local leaders to learn from their success.

There was wide support for broadening the range of access points to vaccination – including working with community pharmacies, linking vaccinations to hospital visits and connecting with people in the workplace through employers. To achieve this, priority should be given to ensuring that information systems can be linked up.

¹⁴ http://www.dh.gov.uk/en/Aboutus/Features/DH_125650

Recommendations

Having reflected on its discussions with experts in the field, ILC- UK makes the following recommendations.

A life course vaccination programme

The Government should make an explicit commitment to a life course vaccination programme, with age-group based as well as risk group based recommendations for vaccination with a particular focus on 50+ age groups. We believe such an approach would:

- Contribute to maintaining good health in an ageing society.
- Be a more effective way of ensuring that those most at risk receive vaccinations – as many in the 50+ age range have chronic conditions and qualify for vaccination, but do not see themselves as “at risk”.
- Support the Government’s plans to extend working lives.

We believe there is already a strong case for extending NHS funded access to the influenza vaccination to all over 50s. Over time further vaccinations could be made available to different age-groups in line with evidence of clinical effectiveness and cost effectiveness.

In formulating recommendations for the adult immunisation programme, attempts should be made to use more **comprehensive calculations of vaccine cost effectiveness, which acknowledge the wider benefits to society and the healthcare system and take into account the potential costs of lost productivity** due to sickness amongst an ageing population which is working longer. In particular, it would be desirable to promote the evidence to Human Resources professionals and occupational health professionals in order to get buy-in from employers.

The Government should ensure its communications emphasise the lifecourse nature of vaccination i.e. that vaccination is a “normal” part of adult life as well as childhood, and that adults, particularly in later life, should expect to require new vaccinations. In this regard the Government is asked to **review the use of the term “at risk” to describe those currently targeted for vaccination.**

The Government should explore the idea of a vaccination record card (paper and/or electronic) which could be carried throughout a lifetime, and which could be linked to employer schemes encouraging vaccination.

Communication

In general, the Government should integrate its own communication work with the wider community of interest in immunisation – including health professionals, the pharmaceutical industry, and the third sector – in order to have joined up messaging on vaccination.

The Government should facilitate the establishment of an independent immunisation communications coalition to share information on future immunisation campaigns and to plan for the delivery of clear and unified messages about the vaccinations available on the NHS, and the options and potential benefits for those seeking private vaccinations.

The Government should look to use the resources and expertise of third sector partners to widen the range of communication channels used to promote immunisation – **in particular the Government should examine third sector use of social media that may be appropriate for communicating about immunisation to the wider public.**

Access to vaccinations

The Government should prioritise work to **expand the range of potential vaccination providers** – such as **community pharmacies and employers** – including integrating them into existing systems for data collection on vaccination, which would remove a key barrier to expanding vaccine availability.

The Government should seek out a small trailblazer group of blue chip companies to trial workplace vaccination of the over 50s.

Healthcare professionals

The Government should work with the Royal Colleges, Unions and other professional bodies to improve vaccination take up and the role of healthcare professionals as advocates for life course vaccination.

The Government should ensure that all healthcare professionals in contact with adults are equipped to advocate for immunisation. When reviewing the future role of Health Visitors, **the Government could consider expanding their public health role into adult health including adult immunisation, particularly for the older population.** However, such changes would require additional resources in order that the profession could still meet demand for child health services for the under 5s while taking on additional responsibilities.

If improvements in uptake rates of immunisation amongst healthcare professionals do not improve with encouragement, the Government should **consider working with the relevant professional bodies to build a requirement to be immunised into professional standards where appropriate.**

Sharing good practice

The DH should use its leading edge data to identify those GPs currently achieving exemplary levels of vaccination coverage and should work with these leaders to identify the key factors for success. This **good practice should be disseminated widely and acted upon.**

Funding streams and incentives

The Government should take care to ensure that NHS reform does not dilute the priority afforded to immunisation. **It should consider moving to a system of central provision of all vaccinations** - as in Northern Ireland – to ensure that funding constraints do not threaten the programme.

In relation to **incentives for healthcare professionals**, Government should undertake or commission **research to ascertain what impact different incentives have**, with a view to using them to maintain and improve vaccination uptake.

Participants List

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Ms Sara Osborne – AgeUK

Professor Richard Parish – Royal Society of Public Health

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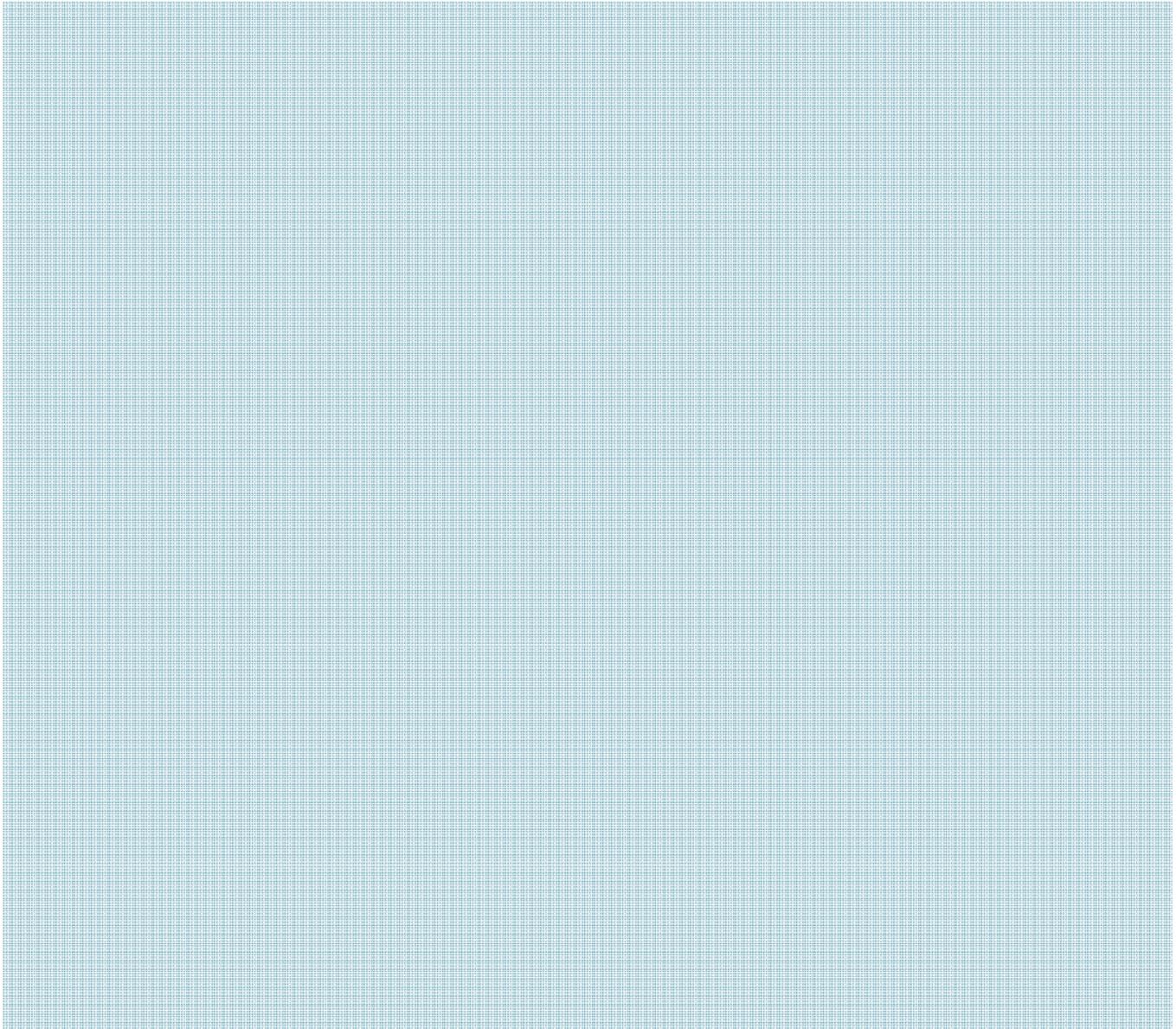
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