Adapting to Sydney’s local government boundaries changes: a population health perspective

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Key points
- Amalgamation of Sydney’s local government areas (LGAs) has resulted in new LGAs with boundaries that cross multiple Local Health Districts (LHDs)
- LHDs that share LGAs will require new partnerships for health and community services, including planning

Abstract
The territory of a Local Health District (LHD) comprises multiple local government areas (LGAs). The recent amalgamation of several LGAs in metropolitan Sydney has resulted in two new LGAs being expanded across multiple LHDs, resulting in nonconcordance of boundaries. Here, we discuss the implications for planning health activities and service delivery, and ways to address them.

Background
In Australia, local health governing bodies operate public hospitals and institutions and provide public health services to communities in specific geographical areas.\textsuperscript{1} In New South Wales (NSW), this regionalisation of the health system occurred in the mid-1980s\textsuperscript{2} and the local health governing bodies are now called Local Health Districts (LHDs). Local government areas (LGAs) constitute the third tier of government in Australia and have roles in regulation, planning, service delivery and community development, including as major partners in the protection of public health in communities.\textsuperscript{3} LHDs closely interact with LGAs to align resources and actions in service delivery.

In NSW, LHDs and LGAs benefit from sharing population and care indicators, which are routinely measured and publicly reported by the NSW Ministry of Health at the LHD level and, increasingly, the LGA level.\textsuperscript{4} LHDs also have access to census and other de-identified nonaggregated data, which are mostly geocoded at the LGA level.\textsuperscript{5} In metropolitan Sydney, five LHDs served residents with unchanged LGA boundaries until 2016.\textsuperscript{6} Each of these LHDs accommodated entire LGAs (ranging from five to 11), with the exception of Sydney LGA, which is shared between two LHDs.
In late 2016, the NSW Government began amalgamating LGAs in metropolitan Sydney, decreasing their number from 41 to 24. Of the eight new LGAs formed:

- Six were created without boundary changes from pre-existing LGAs. Five occurred within LHD boundaries, and the newly-formed Canterbury–Bankstown LGA crossed two LHDs.
- Two newly-formed LGAs, Cumberland and Parramatta, required LGA boundary changes; the latter extends across two LHDs.

The resulting LHD population distribution across shared LGAs is summarised in Table 1.

Alignment of healthcare providers’ boundaries (for Primary Health Networks and LHDs) has been accepted as desirable. Nonconcordance between LHD and LGA boundaries will require shared responsibilities, planning, and service delivery. Here we discuss these issues, and implications to consider.

### Implications and considerations

LHDs with changed LGAs, and LGAs that need to work with two LHDs, may encounter differences in emphasis, resource allocation, and governance. This will require negotiation and careful management among the partners. For example, a multicultural LGA that was recently targeted to address its low child immunisation rate in the Western Sydney LHD no longer exists because of changed boundaries and renaming.

This has complicated implementation of planned collaborative interventions in the community and ongoing assessment of outcomes.

Data at the LGA level, or smaller localities, enable us to recognise variation in needs within LHDs. Immediate adoption of new LGA configurations in population health reports is challenging, but essential for planning and forecasting. For example, a year after LGA amalgamations, data on immunisation coverage (personal communication) and cancer incidence are needed.

### Table 1. Nonconcordant LGAs and LHDs in the Greater Sydney region

<table>
<thead>
<tr>
<th>Nonconcordance</th>
<th>Shared LGA Name</th>
<th>Population</th>
<th>LHD Name</th>
<th>Population</th>
<th>Population (%) of shared LGA</th>
<th>% of total LHD population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-existing</td>
<td>Sydney LGA</td>
<td>212,563</td>
<td>Sydney LHD</td>
<td>639,745</td>
<td>122,649 (57.7%)</td>
<td>19.2%</td>
</tr>
<tr>
<td></td>
<td>South Eastern</td>
<td>910,367</td>
<td></td>
<td>89,914 (42.3%)</td>
<td>9.9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sydney LHD</td>
<td></td>
<td>South Eastern Sydney LHD</td>
<td>639,745</td>
<td>204,671 (56.8%)</td>
<td>32.0%</td>
</tr>
<tr>
<td></td>
<td>South Western</td>
<td>967,448</td>
<td></td>
<td>155,666 (43.2%)</td>
<td>16.1%</td>
<td></td>
</tr>
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<td></td>
<td>Sydney LHD</td>
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<td>639,745</td>
<td>155,666 (43.2%)</td>
<td>16.1%</td>
</tr>
<tr>
<td>New</td>
<td>Canterbury–</td>
<td>360,337</td>
<td>Sydney LHD</td>
<td>639,745</td>
<td>204,671 (56.8%)</td>
<td>32.0%</td>
</tr>
<tr>
<td></td>
<td>Bankstown LGA</td>
<td></td>
<td>South Western Sydney LHD</td>
<td>967,448</td>
<td>155,666 (43.2%)</td>
<td>16.1%</td>
</tr>
<tr>
<td>New</td>
<td>Parramatta LGA</td>
<td>238,864</td>
<td>Northern Sydney LHD</td>
<td>808,872</td>
<td>24,125 (10.1%)</td>
<td>3.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Western Sydney LHD</td>
<td>946,832</td>
<td>214,739 (89.9%)</td>
<td>22.7%</td>
</tr>
</tbody>
</table>

LGA = local government area; LHD = Local Health District
Note: Population estimates are at 30 June 2016 and calculated based on LGA- and LHD-specific data published by HealthStats NSW.
Nonconcordant health and government boundaries

are being reported based on old LGAs, including an LGA that no longer exists. At the same time, available indicators for newly merged or changed LGAs that have maintained their original names have questionable utility, particularly for populous and cosmopolitan LGAs where disparities in the characteristics of residents can be substantial. For example, the new Parramatta LGA (Figure 1) has a higher socio-economic status than the previous LGA.\(^5,14\) Existing trend data are no longer reflective of newly delineated populations in areas such as Parramatta LGA with its new geography and related demographics. Consequently, existing plans are unable to align with the changed demographics.

Accurate estimates from up-to-date geocoded data are unobtainable without delineating the new boundaries in public reports and accessible data. The information gap requires specialised analytical skills. A consistent approach by LHDs for reporting on community health indicators for the shared LGA would enable appropriate use and interpretation.

Specific issues arising from changed boundaries could benefit from a collaborative approach.\(^15\) This approach requires us to: recognise risks in delivery of services; align internal (inter-LHD) and external (LHD–LGA) priorities, resources and models for interaction; inform communities about new configurations of service delivery; and improve measurement and reporting systems and related infrastructure.

**Figure 1.** Distribution of socio-economic status for Statistical Area Level 1 within Parramatta LGA before and after NSW LGA amalgamation

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**Conclusion**

LGAs are partners of LHDs in health service delivery, and their boundaries are used for planning purposes by LHDs. Sydney’s LGAs and their boundaries have changed. The discussed implications, regardless of motives and consequences\(^16-18\), are generalisable to any geography and population. Adapting to boundary changes will benefit from a collaborative approach by all parties. The approach should address risks, priorities, partnership models, consumer engagement and alignment of data.

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**Author contributions**

HA, HMA and LM were responsible for the conception, design, analysis, interpretation and writing. SB and SG contributed to interpretation and writing.
References


