

# NSW Public Health Bulletin Referee Report Form

Referee's name: Ms Referee

Referee's email:

Manuscript title: Childhood cancer and proximity to power lines, in two regions in NSW

## Advice for authors

### The Paper

Is the <b>Title</b> informative?	Yes
<i>If appropriate, please provide comments and or suggestions</i>	
Does the <b>Abstract</b> give a clear summary of the paper's primary concerns?	Yes
<i>If appropriate, please provide comments and or suggestions</i>	
The abstract appears to be longer than the prescribed limit of 100 words.	
Does the <b>Introduction</b> summarise what is already known on this topic and tell the reader why this study needed to be done? Is the question that the work seeks to answer clearly stated?	Yes
<i>If appropriate, please provide comments and or suggestions</i>	
The authors have provided background that supports their argument that power lines contribute to the burden of cancer in children	
Are all the <b>Methods</b> outlined in the Methods section?	No
<i>If appropriate, please provide comments and or suggestions</i>	
The reason for studying only the summer months was not justified in the Methods section.	
Was any attempt made to relate the magnitude of change in magnetic charge levels to expected changes in cancer admission based on published results from other studies? That is, how consistent was the magnitude of the observed change with changes observed in other studies?	
Is it possible that admission patterns from each of these geographic regions might have independently changed over the two years? Admissions to only one hospital were studied, but there are other hospitals in the region that patients might have attended.	
Was the potential for different patterns of carcinogen (e.g. farm chemical) exposure between the two regions considered?	
Was there a demographic change associated with the moving of the power line? Is it possible that families with young children moved away from the area after the closure of the Tucker power station for employment reasons?	

A comparison of the 1996 and 2001 Census data for the two postal areas could answer this question.

The study would have been more convincing had a greater number of postal areas been studied. Two regions is a very small sample size.

The study may have been more convincing had a greater number of years of hospital admissions been studied in order to gain a better sense of the prevailing pattern of admissions in each geographic region prior to moving of the power lines. A historically wide variation would suggest that the change observed between 1999 and 2000 may not have been unusual.

Does the **Results** section set out the findings clearly?

Yes

***If appropriate, please provide comments and or suggestions***

Median length of stay might be a better measure of bed stay. Averages are more suited to normally distributed data, but length of stay tends to be left-skewed in its distribution.

Do the **Results** look plausible?

Please select

***If appropriate, please provide comments and or suggestions***

The authors to their credit have stated that the results could have been explained by other confounding environmental factors such as parental smoking rates or oncogenic viruses or by chance, e.g. a cluster of cases of genetic propensity to cancer.

Does the **Discussion** summarise the implications of the findings and consider obvious limitations with the methods or findings?

No

***If appropriate, please provide comments and or suggestions***

Referring to the proportion of children with leukaemia in Table 3, if the moving of the power lines was the only environmental change that occurred, why did the proportion with leukaemia in Scarlett double between 1999 and 2000? These proportions are based on very small counts and cannot be used to draw firm conclusions. Confidence intervals would reveal this difficulty.

The use of the tobacco exposure information is not well justified or discussed. What is the interpretation of the dramatic differences observed between the two years? How valid is this as a measure of actual exposure of children to tobacco smoke?

Are the **References** appropriate and carefully cited?

Yes

***If appropriate, please provide comments and or suggestions***

## Presentation

Is the paper too long?	No
<i><b>If appropriate, please provide comments and or suggestions</b></i>	
Is the structure appropriate to the contents?	Yes
<i><b>If appropriate, please provide comments and or suggestions</b></i>	
Could you follow the argument of the paper as a whole easily after one reading?	Yes
<i><b>If appropriate, please provide comments and or suggestions</b></i>	
Is the text full of jargon and technical terms?	No
<i><b>If appropriate, please provide comments and or suggestions</b></i>	
Is the text badly written, with grammatical errors and awkward confused sentences?	No
<i><b>If appropriate, please provide comments and or suggestions</b></i>	
Could <b>Graphs</b> or <b>Tables</b> be improved?	Yes
<i><b>If appropriate, please provide comments and or suggestions</b></i>	
Table 1 does not provide confidence intervals for the percentage change in the proportion of admissions that had a cancer diagnosis. It is unlikely that these are statistically significant, particularly in the 0–4 age group.	
Tables 3 and 4 do not show confidence intervals for proportions. Confidence intervals for counts based on the Poisson distribution could also be included in Tables 1, 3 and 4.	
Are the <b>References</b> in Vancouver style, in numerical order?	Yes
<i><b>If appropriate, please provide comments and or suggestions</b></i>	

### *Additional comments to authors*

Is there a legal concern about mentioning the name of the power company?

## Advice for Editor *(This will not be made available to the authors)*

### Topic

Is the topic a significant public health issue?	Yes
<b><i>If appropriate, please provide comments</i></b> The association between power lines and childhood cancer is an important public health question and the possibility that high-voltage facilities could be the cause of higher rates of cancer is of major concern to the community.	
Will it interest people working in public health?	Yes
<b><i>If appropriate, please provide comments</i></b> Because the facility in question is a major contributor to the NSW economy, the question has important implications for industry in NSW and is therefore highly relevant to readers of the NSW Public Health Bulletin.	
What is your recommendation regarding this manuscript?	Publish after major revision

### *Confidential comments to the Editor*

I would have strong concerns about publishing the manuscript in its present form, unless the limitations were presented more clearly and thoughtfully and the conclusions diluted accordingly. This study provides evidence to show that there was a difference in cancer admissions between the two years and geographic regions. However, a sample size of two regions, one exposed and one non-exposed, is insufficient to draw a firm conclusion that the power lines were the cause of the changes without better accounting for other, unmeasured confounding factors.

In 2007, we are planning to send referees of the same paper, a copy of the other reviews carried out. This process will remain anonymous and referees will not be identified. Referees regularly request feedback on their reviews and so we hope that this will provide a useful way of achieving this.

Would you like to obtain a copy of the other review/s of this paper?	Yes
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This year we will produce an Annual Referee Index. Referees are an integral part of the peer review process of the *Bulletin*, and as such we would like to acknowledge and thank all our referees for their commitment and time in reviewing papers and for providing authors with advice on ways to improve their manuscript. The Annual Referee Index will be made available on the web.

I agree to have my name included on the Annual Referee Index?	Yes
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### **Comment on sample review:**

This thorough review gives the editor the information on which to base a decision and also offers advice to the authors so that they both understand the rejection and can plan better research in future.

### **Sample review 2 (*a helpful review*)**

It is unclear whether this paper is about leukaemia or all childhood cancers. The message that moving the power lines caused the reduction in admissions for childhood cancers is too strongly made, particularly in the Conclusions. There may be a number of explanations for this change, and none of them have been properly controlled for in the analysis.

The comment that there is literature to support a link between the presence of power lines and cancers in childhood is absolutely true, but if the authors looked, they would find literature to support a link with radiation emissions, water pollution, parental occupation and many other environmental factors. Therefore the fact that literature exists does not improve the ability of this study in finding a link in the areas studied.

In summary, because the link between power lines and childhood cancers is so important, it has been studied using far more rigorous methods than used in this study. Unfortunately I cannot conclude that this paper makes a scientifically valuable contribution to research on the subject. I would recommend that the authors do more research on appropriate methodologies for environmental epidemiology before taking the study further.

### ***Comment***

This report makes it clear that the study is fatally flawed and not worthy of publication, but leaves it to the Editor to decide about rejection.

### **Sample review 3 (a minimally helpful review)**

The paper is a descriptive account (case series) of the public health management of a cluster of cases of chickenpox at a Cooma school.

I feel the subject matter is relevant and of interest, although I'm not sure that it complies with the *Bulletin's* word limit for short reports.<sup>1</sup>

I would make only minor suggestions for amendments:

- Provide a brief discussion of the rationale for widespread vaccination of the school students and the relation of this decision to the national guidelines.
- Time is presented in the 24-hour clock. I understand that time presented in this way should be followed by the term 'hours'. For example, (pg 2, case 9) '0600' should read '0600 hours'.<sup>2</sup>

### **Comments**

1. The word limit is a matter that is checked by the *Bulletin* staff. If the paper is too long, it is helpful to suggest where cuts could be made.
2. This is a matter of editorial house style and will be attended to during copyediting.

#### **Sample review 4 (*a unhelpful review*)**

The paper provides some interesting material, but not a lot that is new.<sup>1</sup> The main subject is how 'local council polices have a profound effect on safety at work'. The paper needs to be more tightly organised around this topic. As it stands the paper is poorly organised.<sup>2</sup> Also, it begins with more sophisticated concepts, but fails to sustain itself at this academic level.<sup>3</sup> It also needs to clarify better what is referring to 'physical' aspects of the workplace and 'cultural' ones. I voted for a reject; even though I considered an R&R, I conclude that the author(s) didn't seem to have what it would take to effectively make it into a high-level piece of work.<sup>4</sup>

#### ***Comments***

1. It would be helpful to say whose work has already covered these ideas.
2. What is wrong with the organisation? How could it be improved?
3. This may not be relevant for practical work in workplace health and safety.
4. This remark does not belong in the comments for the authors and should be addressed privately to the editor. It amounts only to personal abuse; even if it is true, the author might get help to improve the paper.