

A report on simple, low cost, effective house survey and repair programs in the N.T.

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1.0 ABSTRACT.

The Indigenous Housing Authority Northern Territory has provided \$1700 per house for annual indigenous housing emergency maintenance since 1998. With this funding, remote Aboriginal communities in the N.T. are able to do basic health and safety repairs which have often been neglected in the past resulting in squalid living conditions and poor health for the residents.

In 3 remote N.T. indigenous communities comprising over 150 houses, a simple house function survey and repair process has been carried out to improve house function. It was found that where houses were of a reasonable standard, genuine efforts by the local Council to carry out the work led to improved house function. This has been shown to dramatically improve the health of the residents in the pilot community and in other studies. It has also been found that many community houses are beyond economic repair, where despite maintenance their functionality soon deteriorates.

These programs can be compared with the N.T. Government house function survey program which has failed to achieve the level of information that communities need to make informed decisions about their housing maintenance programs. In some communities maintenance funds have been received without carrying out the repairs and many others were not surveyed resulting in no systematic process for improvement.

2.0 BACKGROUND.

In 1997 a simple low cost house survey and repair program was carried out at Ramingining in Arnhem Land in response to the concerns of the residents about the poor condition of their houses. Detailed lists of repairs were provided to the community housing teams and data enabling the community to make informed decisions about their housing was provided from the surveys.

In 1998 this process was repeated and measured improvements in house function were achieved concurrent with a dramatic drop in the number of visits to the local Health Centre (Hardy, 1998). This program has continued on an annual basis and the last survey was carried out in the first week of October 2001. After the 1998 survey when health results were reported, and in conjunction with advocacy from several quarters in the Northern Territory (N.T.), the Indigenous Housing Authority of the N.T. (IHANT) decided that they would specifically fund annual house maintenance on indigenous communities at the level of \$1700 per house. This funding was for health and safety repairs and was linked to requirements for an annual survey, adequate rent collection and a housing management system in each community.

In May 2000 Katherine West Health Board (KWHB) employed the author with a major focus of his work being to improve housing function in their region. The survey process at Daguragu and Kalkarindji commenced in the following month.

The IHANT is a group of ATSIC elected members and N.T and Commonwealth Government officers who decide policy on the distribution of some \$38M per year of housing funds in the N.T. Their Program Managers are the Territory Housing and the N.T. Department of Local Government.

Unfortunately, in 1997 the N.T. Government agencies introduced a different and ineffective survey instrument and a flawed survey process. This has resulted in more than \$20 million expended, a single N.T. wide report in 3 years (N.T. Dep't Local government, 2000), little validity of the data and little comparability of houses or communities. Reporting to communities has also been very poor.

3.0 METHOD.

3.1 Housing Survey and Repair Programs.

Two survey instruments were used for these surveys, copies of each are available from the author. The first is that required by IHANT and is titled – **“Housing- Environmental Health Survey” 31/12/99**. When completed, this form is submitted to Territory Housing for their processing of the data, but as yet no data on house function at the community level (despite 3 years of surveys) has been available.

The second survey instrument is titled – **"Housing Survey Form (Version #4)"**. This survey instrument enables communities to get useful data for making decisions about housing work. The information in this report from Ramingining, Daguragu and Kalkarindji is based on data gained from the use of this instrument. This instrument is based on the principles developed for and espoused in the UPK Report (S.A.H.C. 1987) and in "Housing for Health" (Pholeros et al. 1993) and the National Indigenous Housing Guide (Healthabitat, 1999). This instrument has been used for similar surveys at Ramingining annually since 1997 (Hardy, 1997, 1998 & 2000), (Laverack, 1999).

The concept of "fully functional", which is at the heart of the work by Pholeros et al (1993), was used as the basic standard to determine functionality in these surveys. An example of this would be a dripping tap. Despite someone still being able to use the tap to wash their hands, the drip would soon render the tap useless so it would be assessed as non-functional for the purpose of this survey. Similarly, a toilet cistern without a lid, despite it still being able to be flushed, would fail due to its increased likelihood of failing altogether soon.

The author organised and trained all the surveyors in the Ramingining and Daguragu processes discussed in this report. He also worked as a surveyor himself in all but the Ramingining 1999 survey. All surveyors participated in theoretical and practical training sessions on how to use the survey instrument, and systematic efforts prior to the surveys, were made to ensure the questions were answered in as standardised a manner as possible.

A N.T. Serviced Land Availability Plan was used to identify the houses to be surveyed. Each house was ticked off the map as it was surveyed to ensure houses were not surveyed twice. The surveys were usually carried out in one or two visits to the communities. Local residents accompanied the surveyors on each house visit and informed consent was gained from all residents prior to entering their houses.

The author collected the survey forms and maps, checked that they were completed correctly and completed lists of the work required to be done and sent these to the community tradesmen. He also entered the data onto a sheet where the data could be compiled and analysed for an overview of the functionality of the houses.

3.2 Comparisons with the Territory Housing maintenance program.

The N.T Local Government Department and Territory Housing, as the IHANT Program Managers have published several documents describing the IHANT housing maintenance program including -

- "Evaluation of Environmental Health Survey Data"- Indigenous Housing." N.T. Department of Local Government. August 2000.
- "Indigenous Housing Authority of the Northern Territory. 1999-2000 Annual Report." N.T. Department of Local Government. 2000.
- "Indigenous Housing Authority of the Northern Territory." Video. 2000.

These documents and others were perused to determine the intentions and actual outcomes of the Territory Housing run housing maintenance programs for comparison with the programs

run at Daguragu and Ramingining. Personal experience over 4 years of both survey & repair processes was also called upon.

Twenty-one criteria (listed in section 4.3), that in the view of this author, a housing survey and repair program for remote indigenous communities should fulfil, were used to compare the programs and a comparative table was prepared.

4.0 RESULTS.

4.1 Daguragu and Kalkaringi House Functionality Survey Statistics – 2000 - 2001.

COMMUNITY.	Daguragu	Daguragu	Kalkarindji	Kalkarindji
DATE OF SURVEYS.	6/2000	6/2001	6/2000	6/2001
NUMBER OF HOUSES SURVEYED.	44	44	45	43
Mean number of bedrooms/ house	2.7	2.7	2.7	2.8
Mean number of people / house.	5.3	6.3	6	5
Mean number of people / bedroom.	2	2.3	2.2	1.85
Houses-floor/ wall/ ceiling repairs required.	74%	75%	45%	26%
Houses electrically safe.	30%	30%	53%	36%
Houses with a safety switch.	N/R*	100%	N/R	93%
Houses needing door & window repairs.	95%	93%	67%	26%
Houses with hot water.	54%	70%	70%	83%
Houses with a functional shower.	45%	36%	78%	64%
Houses with a functional hand basin.	26%	25%	73%	88%
Houses with tub for washing kids.	0%	2%	50%	60%
Houses with functional laundry tub. Tub.	44%	41%	75%	81%
Houses with a washing machine that works	21%	18%	50%	64%
Houses – access to public washing machine	7%	Same	3%	Same
Houses with a functional toilet.	60%	57%	65%	71%
Houses with blocked toilets.	5%	14%	10%	26%
Houses with a functional kitchen sink.	51%	48%	75%	79%
Houses with stoves with at least 2 hotplates working	49%	82%	93%	95%
Houses with kitchen cupboards with doors & smooth impervious food prep. surfaces.	12%	7%	35%	17%
Houses with a fridge that works.	33%	66%	88%	79%
Houses with a functional fence.	24%	43%	85%	40%
The mean number of dogs / house.	2.4	2.9	2.6	2.8
The mean house functionality rating.	35%	24.6%	61%	59.2%

*** N/R = Not Recorded.**

4.2 Ramingining House Functionality Survey Statistics – 1997- 2000.

DATE OF SURVEYS.	7/97	8/98	8/99	10/2000
NUMBER OF HOUSES SURVEYED.	46	53	63	60
Mean number of bedrooms / house	3.8	3.8	3.7	3.9
Mean number of people / house.	9.2	8.6	8	7.9
Mean number of people / bedroom.	2.4	2.3	2.2	2
Houses with floor, wall or ceiling repairs required	40%	28%	6%	38%
Houses electrically safe.	37%	79%	74%	63%
Houses with a safety switch.	N/R*	N/R	N/R	60%
Houses with doors and windows needing repair.	70%	35%	28%	28%
Houses with hot water.	42%	61%	92%	87%
Houses with a functional shower.	30%	81%	92%	60%
Houses with a functional hand basin.	35%	77%	85%	70%
Houses with a tub for washing children.	14%	23%	34%	12%
Houses with a functional laundry tub.	30%	70%	90%	75%
Houses with a wash machine that works.	35%	42%	25%	32%
Houses with access to a public washing machine.	2%	2%	100%	100%
Houses with a functional toilet.	65%	56%	94%	75%
Houses with blocked toilets.	2%	N/K**	0%	3%
Houses with a functional kitchen sink.	33%	84%	96%	88%
Houses with stoves - at least 2 hotplates working.	35%	61%	70%	72%
Houses with kitchen cupboards with doors and smooth impervious food preparation surfaces.	35%	67%	60%	53%
Houses with a fridge that works.	N/R	N/R	47%	53%
Houses with a functional fence.	N/R	N/R	6%	3%
The mean number of dogs reported in each house.	3	2.4	2.5	1.8
The mean house functionality rating.	42%	65%	71%	69%

* N/R = Not Recorded.

** N/K = Not known due to a whole street sewerage problem at the time of the survey.

4.3 Comparisons of the Territory Housing survey & repair process and that run in Daguragu and Ramingining.

	Criteria For Comparison Of The 2 Programs.	Territory Housing Program	Daguragu & Ramingining Programs
1.	Were the surveyors trained to use the survey form in a standardised way?	NO	YES
2.	Was the concept of FULL health hardware functionality explained to all the surveyors?	NO	YES
3.	Was the survey instrument simple enough for surveyors to use it without training?	NO	YES
4.	Was the survey instrument user friendly for community based staff?	NO	YES
5.	Were the questions on the survey instrument clear about what they were assessing?	NO	YES
6.	Did the survey instrument ask for an assessment of FULL health hardware functionality?	YES	YES
7.	Were all the questions on the form completed for every house prior to leaving the community?	Often NO	YES
8.	Was the survey instrument piloted?	NO	YES
9.	Could the overall functionality of a house be readily assessed from the survey form?	NO	YES
10.	Was the database to be used piloted?	NO	YES
11.	Did the survey report base its data on FULL health hardware functionality?	NO	YES
12.	Were any missed houses followed up?	Often NO	YES
13.	Were lists of the work to be done forwarded to the community as soon as possible after the surveys?	YES	YES
14.	Was a detailed analysis of the data from the surveys done for each community?	NO	YES
15.	Was a detailed report based on the data from the survey provided to each community within several weeks of the survey?	NO	YES
16.	Did the communities have a housing management program?	YES	YES
17.	Were the second or third round of the surveys able to detect whether the work had been carried out or not?	NO	YES
18.	Were there increased efforts to collect rent as a result of this program?	YES	YES
19.	Was the survey instrument or process evaluated and modified to improve the quality of information collected?	NO	YES
20.	Did the community get enough information from the survey to better manage their houses?	NO	YES
21.	Was the survey work of your organisation funded by IHANT?	YES	NO

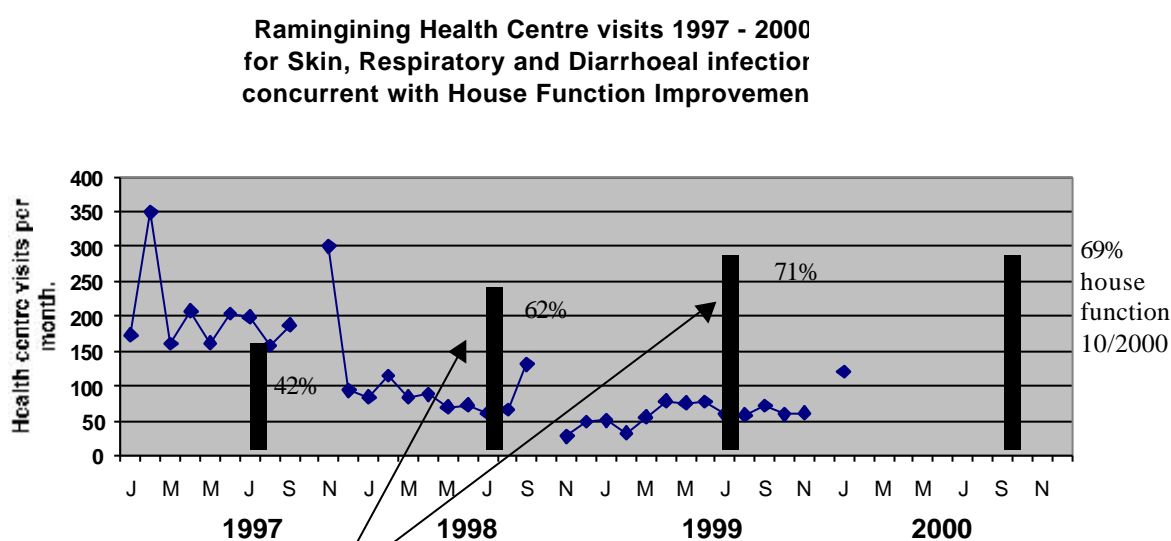
5.0 DISCUSSION.

I will begin with some examples of how the analyses of the data from the Ramininging and Daguragu programs has better informed their housing management.

5.1 Overall House Functionality.

5.1.1 Ramingining.

After the first year (1997-1998) Ramingining has been able to maintain a reasonable standard of house function and this seems to be reflected in the number of visits to the Health Centre which trended down and remained low until the end of 1999. No further Health Centre data has been available since that time.



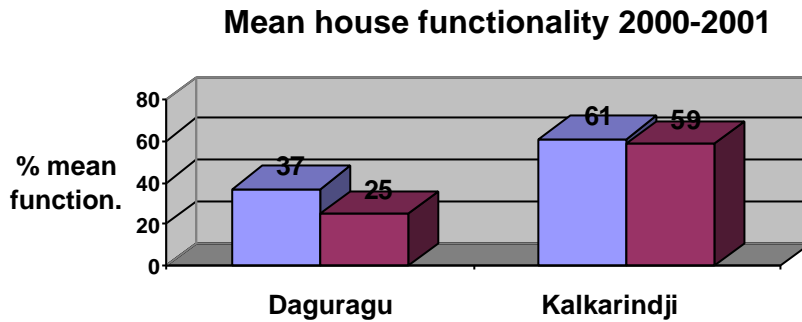
The columns indicate the mean assessed level of house function.

An important implication of this graph is that the major drop in Health Centre visits occurred when the mean functionality of the houses exceeded 60%. This has now become the goal of the program in the Katherine West Region.

5.1.2 Daguragu and Kalkarindji.

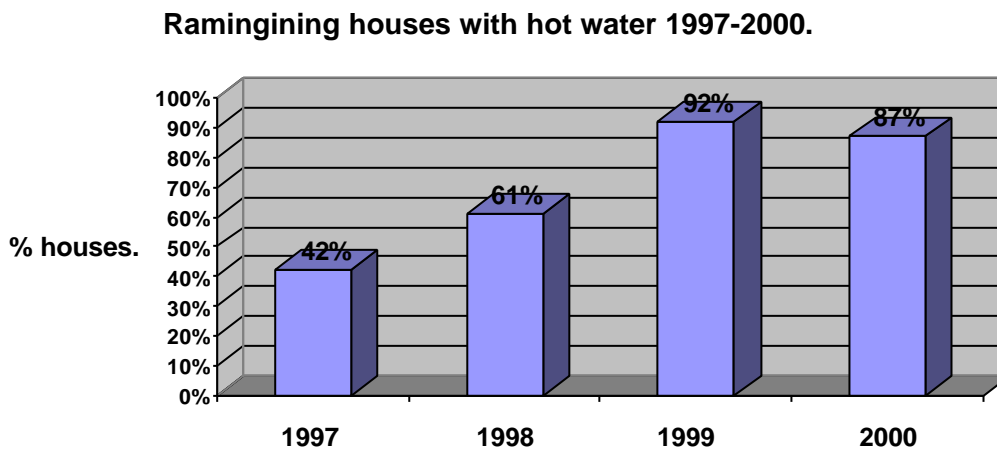
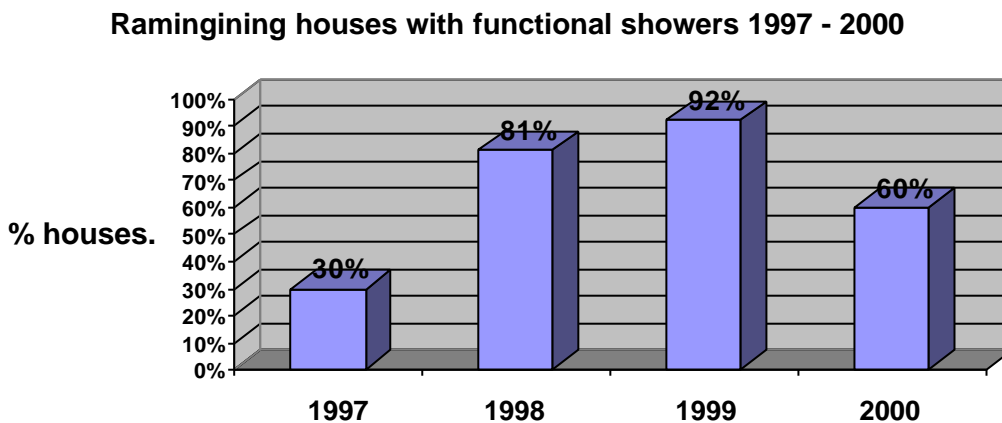
The mean functionality of the houses in Daguragu actually decreased in the past year. Work was actually carried out, with work order records sighted. The only explanation for this seems to be that the houses are simply beyond economic repair. In other words, the IHANT funding (\$1700 / house) and the rent is simply not enough to adequately maintain the houses concerned in a healthy, safe state.

This ability to detect: changes in house function, whether work was done, and to indicate whether a house or group of houses is beyond economic repair is an important capability. It is a key tool for managing houses.



5.2 Other aspects of house function.

For specific health hardware items such as hot water availability and shower function it is useful for community housing managers to know their overall status. If the plumbing is up to standard then a special effort (more money spent) on hot water provision is possible. Note that the hot water availability rose dramatically in the 1999 survey. This occurred at Ramingining in 1998 and demonstrates that valid data on the functionality status of the houses is very useful for managing meagre resources and supporting health.



Many more examples could be raised from the data already collected. Another example is that of washing machines. At Ramingining in 1997 only 35% of the houses had a functional washing machine. This meant that 245 people in a remote community had no working washing machine in their house and they had an average of 9.2 people per house! On this basis, funds were sought from ATSIC for a laundromat which was constructed and has been operational ever since with healthy (!) returns back to the community. Knowledge is power.

5.3 Comparisons of the two survey processes.

Based on the criteria set out in section 4.3 of this report, the Territory Housing surveys process has fundamental problems. Of the 21 criteria, the Territory Housing process could only answer "YES" to five while the alternative process was able to answer "YES" to all but one of the questions. This one negative being that KWHB received no IHANT funds for the survey process. This would equate to some \$100,000 based on the Territory Housing fees.

Many of these problems were confirmed by the August 2000 evaluation of the program (N.T. Dept. Local Government, 2000). "This report commented that -

- "Not all houses could be surveyed."
- "There was no protocol for a number of steps in the data collection process."
- "The way data was collected varied between Field Officers... and the way an individual officer collected data varied between houses."
- "The method of assessing the condition of items should be standardised... items should be physically tested."
- "There is no feedback to communities or Field Officers of the survey at this stage."

Perhaps the most glaring of the problems with the Territory Housing process are that –

- Was it piloted? If it had been, it may have identified many of the problems.
- There seems to have been no training of the surveyors to standardise the process.
- The survey instrument has too many questions and easily confused coded answers.
- There was no way to assess the houses' overall functionality directly from the form.
- Some 20% of the houses received maintenance funding despite having no survey.
- Many, perhaps 50% of communities (based on experience in the Katherine West Region) were surveyed and received funding, but failed to do any maintenance work! Without indicative data (such as ratings) or a detailed annual analysis of the data, change could not be detected.

If the 21 suggested criteria could be addressed by future survey processes, there would be a far better system to inform communities and hence better housing management.

5.4 Failures of the Territory Housing system.

It should be very clear that the intent of this report is not to criticise IHANT itself which has been an instrument for the advancement of indigenous housing after many years of fragmented, wasteful and ineffective housing services. The evidence for this poor management in the past is the current appalling state of much of the remote indigenous housing in the N.T. (as identified in their own evaluation, N.T. Dept. Local Gov't, 2000), the chronic overcrowding and an ineffective maintenance system.

IHANT today has indigenous control of its funding, but how well informed are they by their Project Managers? The evidence of the House Maintenance Program would suggest they have been less than well informed.

6.0 CONCLUSION.

The level of information available from the Ramingining and Daguragu surveys is timely, focussed on health benefit, gives a general assessment of the house functionality and allows for comparisons year to year, house by house, community by community and regionally. It makes good housing management possible for the benefit of the people.

In contrast, the Territory Housing survey form and process does not allow any of these things to happen. Communities generally do not seem to receive annual reports on their house function and have no reliable measure of how they are going.

Where tens of millions of dollars of public monies are being expended, and particularly where the health and welfare of people is involved, it is essential to have valid and reliable measures of the variables and determinants involved. Without good information we are driving in the dark without the lights on. Currently, that is what is happening in every part of the N.T. except the Katherine West region communities and Ramingining.

7.0 REFERENCES.

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