



Nirrumbuk Environmental Health & Services

Aboriginal Environmental Health Program

- Aboriginal Environmental Health Program
- Differences in mainstream and Aboriginal programs
- Challenges in plumbing
- Dog Health Program
- Mosquitoes
- Environmental Health Referrals
- EH and Covid-19 Response
- Health Prevention & Partnerships
- Kimberley RHD Program
- A new Culturally Relevant Overcrowding Guideline

Who we are:

- Aboriginal community control organisation
- Membership & Board from the Dampier Peninsula & Broome
- 20 years delivering remote Aboriginal Environmental Health Services
- Beginning founded in CDEP and Municipal services
- Early background in works e.g. plumbing, roads and landfill management
- Today our services and skill has built to:
 - Preventative health case management
 - Education and promotion
 - Support services



Achieving the best Aboriginal outcomes

- Closing the Gap & Priority Reform is critical in our time
- Building resources and capacity of the community control sector to respond to need is essential to Close the Gap and to secure the best Environmental Health Outcomes
- Nirrumbuk delivers appropriate programs with inherent culturally safety through our structure
- Aboriginal leadership and executive
- Organisation has maintained 65-75% Aboriginal employment
- Environmental Health team is >90% Aboriginal employment
- High EHW staff retention has built our skills and ability
- Ground knowledge provides direct match to community need

Environmental Health?

Critically and simply put Environmental Health is:

HOW THE ENVIRONMENT IMPACTS OUR HEALTH

- Physical, biological, chemical and sociological environment all impact health
- Natural and built environment examples include water, food, air, soil, buildings, infrastructure and waste.
- Environmental health is a branch of public health
- EH is an investigative expertise that combines knowledge across numerous fields – detailed knowledge from microbiology to entomology to infrastructure and building to ecosystems, with a specific focus on understanding disease transmission, risk reduction and prevention





Mainstream EH programs

- Serious and Material Public Health Risks & Incidents
- Public Health Orders
- Licence Food Business
- Food Safety
- Swimming Pools
- Caravan Parks and Camping
- Public Buildings and Events
- Wastewater system approvals
- Noise
- Hairdressing, Beauty Therapy and Skin Penetration
- Infectious diseases and outbreaks investigation
- Mosquito management

Aboriginal EH Programs

- Safe Housing
- Safe Water
- Dog Health
- Pest Management
- Emergency Management
- Restricted Plumbing Licence
- Environmental Health Referrals
- Community EH Assessments
- Education
- Promotion
- Specific priority disease focus

Nirrumbuk's Aboriginal Environmental Health Program



- ▶ Centralised management, resourcing & support
- ▶ Community-based employees
- ▶ Regional team
- ▶ Cyclical quarterly planning
 - ▶ Dog Health – 3 monthly
 - ▶ Safe Bathrooms – 3 monthly
 - ▶ Mosquito management – 1st quarter
 - ▶ Preventative Health and Promotion – 2nd & 3rd quarter
 - ▶ Cyclone Preparedness – 4th quarter

Nirrumbuk Aboriginal Environmental Health Program

Core Elements:

- Dog Health
- Safe bathrooms
- Environmental Health Referrals
- Mosquito management
- Cyclone Preparedness
- Community Clean-ups
- Community monitoring & Reporting
- Preventative health & Health Promotion
- Partnership programs
 - Trachoma
 - Vaccinations (MMR, Covid etc)
 - Dog Desexing





The challenge in plumbing

- ▶ EH role is to reduce the risk and potential for negative impact on health
 - ▶ Disease transmission
 - ▶ Mould
 - ▶ Pests
- ▶ Safe Bathroom checks are a preventive health initiative
- ▶ Restricted Plumbers Licence
 - EHW qualified and employed by AEH Program
- ▶ High level of need
- ▶ Low level of resourcing

Dog Health



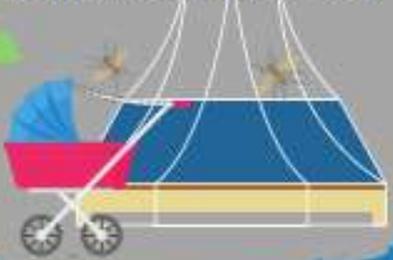
- ▶ A preventative health program
- ▶ Treatments prevent zoonotic disease
 - Worms
 - Scarcoptes (scabies)
- ▶ Chronic disease prevention
 - Skin sores
 - ARF, RHD, APSGN
- ▶ Emerging disease management
 - ▶ Ehrlichiosis
- ▶ Education
- ▶ Population management
 - ▶ Matters to the health of the dog
 - ▶ Crypto, Giardia
 - ▶ Noise – Sleep
 - ▶ Dog attacks & Dog bites
 - ▶ Waste management
 - ▶ Poo & Wheelie bins



Dog Health

- **Sustained long term programs have demonstrated impact**
- 20 years of delivery
- Significant change at 10-15 years
- Optimum skin and body condition scores
- Resourcing of core program provides consistency
- Community participation increases
- Trust relationships & rapport
- Intermittent additional project funds boost outcomes

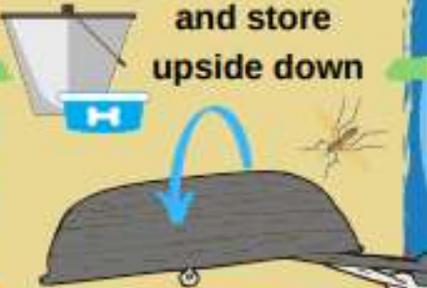
Cover
sleeping areas
and prams
with mozzie-proof net



Use
mossie-proof mesh
on doors and
windows



Empty containers
that hold water
and store
upside down



Why mosquitoes?

- ▶ Preventative health
- ▶ Vectors
 - ▶ Ross River, Barmah Forest, Murray Valley Encephalitis
- ▶ Skin infections & Chronic disease
 - ▶ Acute Rheumatic Fever
 - ▶ Acute Post-Streptococcal Glomerulonephritis
- ▶ Sentinel chickens & notifiable diseases
 - ▶ When resources used – to what scale
- ▶ Education & Health Promotion
 - ▶ Repairs and maintenance priorities
 - ▶ Self protection



Environmental Health Referrals

- ▶ Notifiable diseases
 - ▶ Mandatory notification
 - ▶ Legislated
 - ▶ Mainstream diseases of impact
- ▶ Clinical Environmental Health Referrals
 - ▶ Illness not notifiable
 - ▶ Of significant impact to Aboriginal community health
 - ▶ Kimberley Environmental Health Fractions (KEAFs)
 - ▶ Hospitalisations and costings



EH critical in Covid 19 response

- Early House to House checks (pre-lockdown)
 - Essential maintenance, safe bathrooms
 - Health prevention messaging
- Outstation environmental health assessments & support
 - Family and Elder self-quarantine / isolating
- Early Kimberley Coronavirus animation social media messaging
 - April 2020 45,500 views 1,100 shares
- Environmental health information at Community Meetings during lockdowns
- Delivery of soap, sanitiser and health prevention packs with continued messaging & support
- Reporting Impacts & Overcrowding due to Covid-19
- Continued as Essential Workers

ta proper clean your place a



EH & Covid Response

- ▶ Environmental health inclusions in Kimberley Covid-19 Taskforce scenario and response planning
- ▶ Environmental Health Workers as Local Champions
 - radio messaging
 - community vaccination awareness events
 - early vaccinations
 - social media
- ▶ Environmental Health Workers supporting consent process at Kimberley Vaxathons
- ▶ Door to door vaccination with EHW EH prevention messaging

Preventative Health & Promotion

Working to target behaviour change



Radio

EXPO's and Community Promotional Events

Social Media

Promotional materials

School education

Community workshops

Artwork

Storybooks



Nirrumbuk Special Projects



- Sit outside of AEH Program funding
- Identified by experience and conversations on the ground
- Address gaps, shortfall and community need
- Modelled on pressing issues within our footprint

Examples:

- Animal Management Project (2 yr)
- Kimberley RHD Project – Broome and Bidyadanga
- APPRISE Ramsay Foundation research
- Systems strengthening and continuous improvement for enhancing Clinical EH Referrals across the KAMS membership

Culturally-relevant Guideline on Overcrowding

- ▶ APPRISE Australian Partnership for Preparedness Research on Infectious Disease Emergencies
- ▶ Paul Ramsay Foundation donated funds for First Nations led research
- ▶ Response to NEHS early work in Covid response
- ▶ 219 face to face consultations and 3 community meetings

Example – Covid 19 in one remote community:

- ▶ 56% of houses overcrowded
- ▶ e.g. 16 people in 3 bedroom (10+6); 17 people in a 4 bedroom (10+7)
- ▶ 5 of these houses had no waste disposal access, and
- ▶ 5 had one wheelie bin service
- ▶ 8 of these houses had no hot water and 16 needed plumbing repairs
- ▶ 7 of these houses had wastewater blocks impacting the kitchen sink or toilet
- ▶ 9 of these house had both a functional washing machine and clothes line
- ▶ In total, 37 or 53 houses required maintenance that impacted EH conditions



Kimberley RHD Project



- Partnership with KAMS, Broome and Bidyadanga Clinic and Nirrumbuk Environmental Health and Services
- Based on EH Referrals
- Demonstrated what can be done with additional resourcing
- Community co-design
- Case management model
- Community awareness, education and promotion
- Documentary
 - Educational video documented during a series of 6 lessons at Bidyadanga La Grange community school
- Highlighted the improvements needed in providing understanding of EH referral service as part of informed consent
- EH Referral consent video (insert link)

Kimberley RHD Project



Independent Evaluation:

- ▶ “While some sites focused mainly on primary prevention (health engagement), others were able to pair this with primordial prevention activities (environmental health assessment, repairs, and advice) because of greater availability of environmental health services in those communities, and strong, functional mechanisms of interaction between health and environmental health services. This was particularly evident in those communities where this was already well established prior to the introduction of the RFS-5P”





Evaluation Outcomes

- ▶ “The most appropriate models are those that address both primordial and primary prevention activities, are evidence based (good technical input) and involve multiple stakeholders”
- ▶ “...if the outcome intent is to reduce Strep A infections leading to ARF and RHD in highly complex and challenging environments a strategy that includes a comprehensive combination of primordial and primary prevention activity needs to be delivered concurrently. “.
- ▶ Recommendation “In the future, any continuation of the rheumatic heart disease primordial and primary prevention programs should focus on: a. Ensuring primordial and primary prevention activities are running concurrently and complementary”

Strengthening systems Clinical EH Referrals

- ▶ CQI Clinical Reference Group
- ▶ Environmental Health & Referral Induction Module for Primary Health Practitioners (KAMS – ACCHS membership)
- ▶ Standard Practice Guideline for high prevalence EH diseases
 - Skin Infections
 - Acute Rheumatic Fever and RHD
 - Scabies
 - Trachoma
 - Cryptosporidium
 - Shigella





In conclusion...

- ▶ Environmental Health is an investigative expertise combining knowledge across fields
- ▶ Shift away from short term, intermittent funding
 - ▶ Reduce singular disease focus
- ▶ Aboriginal people are continuing to live in conditions that are not commensurate with mainstream Australia
- ▶ AEH services and primordial prevention is a critical partner in primary health projects
- ▶ When Primary Health and Environmental Health work together – the best preventative outcomes can be achieved



NEHS

Environmental Health Referral Informed consent video

<https://www.dropbox.com/s/960esj57g5gf6uh/EH%20Referral%20Services%20introduction%20-%20first%20edit%204%20min%2025%20sec.mp4?dl=0lt%27s>

The background features a light blue pattern of stylized hands and footprints. A central circular emblem contains a bowl of fruit with green leaves. On the left side, there are dark blue vertical lines and a black arrow pointing right.

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