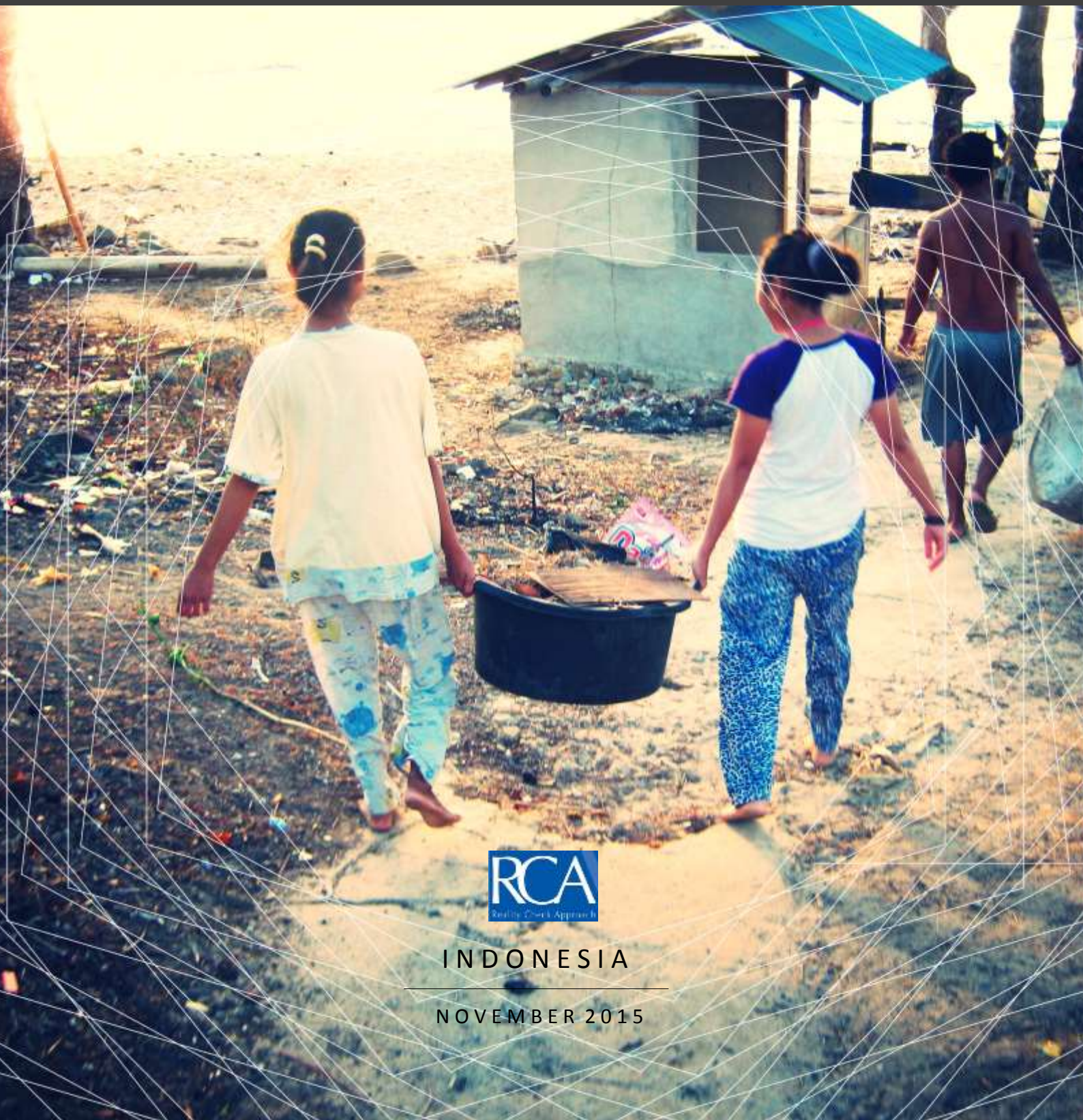
REALITY CHECK APPROACH

"We Are Healthy, Why Change?"

PERSPECTIVES, OBSERVATIONS, EXPERIENCES
OF PEOPLE LIVING IN POVERTY
ON THEIR HYGIENE AND NUTRITION



INDONESIA

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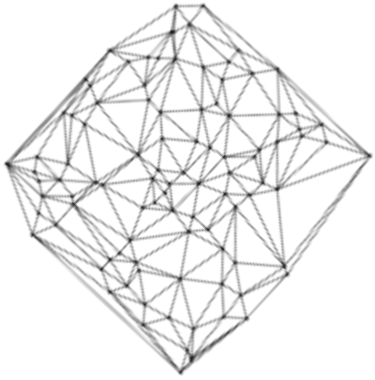

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The Reality Check Approach study has been made possible by the work of an enthusiastic team as well as the commitment and support of many. The Reality Check Approach (RCA) was originally an initiative of the Swedish Embassy in Bangladesh where it was first commissioned in 2007 and has since been adopted in other countries and other contexts. The study was undertaken by a team of local and international researchers (see annex 1) with technical guidance from the RCA+ Project Technical Advisor. The dedication of the team members in taking part to this study and carrying out their work with professionalism, motivation, and respect to their host communities, is much appreciated.

Most importantly, this study was only possible thanks to the many families, neighbours and communities who welcomed our researchers into their homes and shared their lives with them for a short while. We are grateful to them for this opportunity, and for openly sharing their lives, activities, perspectives and aspirations. We hope that the report reflects well their views and experiences and helps to make the programmes implemented in their name relevant and meaningful for them.

GLOSARY

Angkot	Public minibus.
Cadre	Community Health Volunteer.
CLTS	Community led total sanitation, a methodology for communities to help eliminate open defecation.
Colostrum	The milk produced for a baby's first feeding. Colostrum contains antibodies to protect newborns against disease.
DFAT	The Australian Department of Foreign Affairs and Trade.
Embal	A type of 'bitter' cassava particularly prevalent in one of the study locations.
Es	Literally "ice" but often used to refer to homemade sweet drinks which contain ice.
FHH	Focal household.
HHH	Host household.
JKN	*Jaminan Kesehatan Nasional*, or National Health Insurance, is the Indonesian government's universal health insurance system, which is carried out through two programs, BPJS Kesehatan and BPJS Ketenagakerjaan.
Kaporit	Calcium hypochlorite, a disinfectant used for water treatment.
KOMPAK	KOMPAK (Governance for Growth) is a large aid program from the Australian government designed to support the Indonesian government to strengthen the capacity of all levels of the government and communities for improved services and economic growth.
KSI	Knowledge Sector Initiative, a joint program between the governments of Indonesia and Australia, seeking to encourage public policies that make better use of research, analysis and evidence.
Mantri	*Mantri* is the term used by many people for male nurse.
Musim angin timur	Easterly winds season.
MSG	Monosodium glutamate; a flavour enhancer .
PKH	*Program Keluarga Harapan* a conditional cash transfer programme for poor families.
PKK	*Pembinaan Kesejahteraan Keluarga*, Development of Family Welfare, PKK, is a community organization that empowers women to participate in the development of Indonesia.
Posyandu	*Pos Pelayanan Keluarga Berencana Terpadu*, Integrated Service Post for Family Planning, or Posyandu, is a health activity at the village level partly organized and carried out by people in their own villages, with the assistance of public health workers.
Pustu	*Puskesmas Pembantu*, Assistant Community Health Center, are small village health clinics often staffed by only one individual meant to complement a community's puskesmas or provide support to villages which have more limited access to a puskesmas.
Puskesmas	*Pusat Kesehatan Masyarakat*, Community Health Center, or Puskesmas, are government-mandated public health clinics.
Raskin	*Beras Miskin*, Rice for the Poor, is a social assistance program from the Indonesian government which sells rice at subsidized rate.
RCA	Reality Check Approach.
RCA+	Reality Check Approach project funded by DFAT.
PNPM	*Program Nasional Pemberdayaan Masyarakat* (National Community Empowerment Program), is a national programme to assist community development.
Sinetron	Indonesian soap operas.
Sopi	Traditional homemade alcohol in the islands of Maluku.
TBA	Traditional Birth Attendant.
Tawas	Potassium alum, used in the purification of water

Ringkasan

Studi *Reality Check Approach* ini merupakan studi yang melibatkan sekelompok pemangku kepentingan termasuk Bank Dunia, KOMPAK dan *Knowledge Sector Initiative* (KSI). Studi ini dilaksanakan pada bulan September 2015 dan dirancang untuk memahami perbedaan kebiasaan terkait higiene dan nutrisi dari sudut pandang keluarga yang hidup dalam kemiskinan.

RCA merupakan sebuah pendekatan riset kualitatif yang telah mendapatkan pengakuan internasional, yang mensyaratkan tim studi untuk hidup bersama dengan masyarakat dalam kemiskinan di rumah mereka dalam jangka waktu tertentu dan menggunakan kesempatan ini untuk melakukan percakapan dan interaksi informal dengan seluruh anggota keluarga, tetangga dan penyedia layanan yang mereka temui. Penekanan selama pelaksanaan studi adalah dalam hal informalitas di ruang pribadi masyarakat dengan seminimal mungkin mengganggu aktivitas keseharian mereka. 'Berbincang sambil duduk-duduk' tanpa membuat catatan dan struktur formal memberikan peluang terbaik untuk membangun rasa percaya dan keterbukaan. Selain itu, cara ini juga memungkinkan anggota tim studi untuk melakukan triangulasi dari percakapan dengan berbagai sumber, serta memperkayanya dengan observasi dan pengalaman langsung mereka di lokasi studi.

Studi ini dilakukan di tiga provinsi (Kalimantan Tengah, Maluku, dan Sulawesi Utara). Kabupaten yang dipilih sama dengan kabupaten pada studi RCA tentang lini terdepan penyedia layanan kesehatan.

Hal ini memungkinkan pengamatan dan triangulasi yang lebih dalam terhadap dinamika antara masyarakat dengan lini terdepan penyedia layanan. Pemilihan kabupaten dilakukan berdasarkan indikator performa kesehatan yang relatif rendah dibandingkan kabupaten-kabupaten lainnya dengan menggunakan data dari Riskesdas 2013.

Seluruh keluarga yang terlibat dalam studi ini dipilih oleh masing-masing anggota tim melalui diskusi informal dengan masyarakat yang ditemui. Para anggota tim menjelaskan bahwa mereka memiliki ketertarikan untuk memahami kehidupan dari orang-orang yang selama ini dianggap 'tertinggal'. Secara keseluruhan, studi ini melibatkan 21 keluarga dan melakukan percakapan mendetail dengan 1844 orang di daerah dimana mereka tinggal.

Laporan studi ini menunjukkan temuan-temuan mengenai pandangan orang-orang dan kebiasaan yang terjadi di masyarakat terkait nutrisi dan higiene, juga ditambah dengan observasi dan pengalaman tim RCA selama di lokasi studi. Pada bab terakhir, beberapa implikasi kebijakan yang disimpulkan dari studi ini dimaksudkan untuk dapat ditindaklanjuti dalam dialog kebijakan.

Pilihan makanan masyarakat sedang berubah dan beradaptasi dengan zaman 'modern'. Makanan pokok tradisional mulai berganti menjadi nasi, mie dan produk kemasan. Peningkatan taraf ekonomi juga memungkinkan keluarga untuk memiliki pilihan makanan yang lebih banyak.

Meskipun ada sedikit pemahaman tentang apa itu makanan 'sehat' (produk lokal, bahan makanan segar, ikan) dan 'tidak sehat' (makanan kemasan, MSG, 'makanan dari luar'), keputusan tentang pemilihan makanan seringkali didasari oleh kenyamanan dan ketersediaan ketimbang memastikan makanan bergizi seimbang dan menyehatkan. Menjadi kenyang dipandang lebih penting daripada memikirkan makanan apa yang mereka makan. Uang sisa lebih sering digunakan untuk membeli makanan ringan dan makanan kemasan ketimbang sayur-sayuran dan/atau buah-buahan.

Masyarakat meminum banyak teh dan kopi, selalu dengan gula yang sangat banyak. Anak-anak dan bayi di beberapa lokasi juga meminum kopi langsung dari botol dot mereka dan/atau mencampurnya dengan nasi di pagi hari.

Kopi diminum, sering kali ditemani oleh rokok bagi pria dewasa, dengan tujuan untuk memberi tenaga di pagi hari serta sebagai penahan nafsu makan. Alkohol, buatan lokal, diminum di banyak lokasi dan sering diasosiasikan dengan acara-acara khusus atau untuk membantu 'pemanasan' nelayan setelah kembali dari melaut.

Kecenderungan untuk memakan makanan ringan dan meminum minuman manis dianggap lazim terutama bagi anak-anak. Orang dewasa sering mengeluhkan betapa generasi sekarang tidak sekuat generasi terdahulu dikarenakan konsumsi makanan ringan yang berlebihan.

Anak-anak menunjukkan kebebasannya sendiri (*agency*) dalam menentukan makanan apa yang ingin mereka beli serta merasakan adanya **kekuatan (*sense of empowerement*) dan status** atas kemampuan mereka membeli makanan ringan lalu membaginya dengan teman sekelas mereka.

Ada tekanan dari teman mereka untuk membeli makanan ringan di sekolah. Beberapa anak-anak dari keluarga yang memiliki uang lebih, memilih untuk melewatkan sarapan mereka sehingga mereka dapat membeli makanan ringan di sekolah sebagai gantinya. Tren ini diperburuk dengan tersedianya makanan ringan di sekolah, dengan guru dan/atau murid menjual makanan ringan di beberapa lokasi yang kami datangi.

Pria dewasa dan anak-anak secara konsisten memberitahu kami bahwa mereka lebih memilih untuk buang air besar di ruang terbuka (sungai, pantai, semak-semak). Hal ini disebabkan karena mereka merasa tempat tersebut lebih nyaman dan/atau adanya air mengalir yang memudahkan mereka untuk mencuci dan 'menyegarkan' diri mereka sekaligus. **Ada kecenderungan baru yang mulai tumbuh pada wanita untuk menggunakan toilet pribadi** daripada buang air besar di ruang terbuka. Ini dimungkinkan karena adanya perasaan aman dan privasi/kenyamanan, bahkan di beberapa lokasi terlihat secara jelas keinginan mereka untuk memiliki toilet pribadi. Dari semua lokasi yang kami datangi, orang-orang sepertinya tidak mempedulikan tentang pembuangan kotoran bayi.

Kami melihat di beberapa lokasi lantai kayu pada rumah panggung dapat dilepas sehingga bayi (dan juga orang tua serta orang dengan disabilitas) dapat buang air besar melalui celah tersebut.

Hampir seluruh desa yang kami datangi memiliki toilet umum, tapi kami tidak melihat itu diutamakan dan kebanyakan dari toilet tersebut jarang digunakan. **Toilet umum seringkali rusak, tidak terawat dan/atau tidak tersedia air**. Seringkali toilet umum berada di tempat yang kurang layak: di tanah milik otoritas (kepala sekolah, kepala desa) dan di jalan utama dimana tidak ada privasi atau terlalu jauh dari rumah-rumah warga.

Kebersihan diasosiasikan tidak terlihat kotor secara kasat mata. Ini termasuk pemahaman air bersih adalah air jernih; lantai rumah dan halaman harus disapu secara rutin; mandi secara teratur; mencuci tangan sebelum dan sesudah makan; mencuci peralatan makan dan peralatan dapur dengan air sabun menggunakan sistem dua ember. Hal-hal tersebut utamanya dilakukan untuk menghilangkan kotoran dan bau. Orang-orang beranggapan bahwa kebersihan adalah lawan dari kotor (yang berarti sesuatu yang dapat dilihat seperti jelaga, lumpur dan debu). Kebersihan tidak diasosiasikan dengan menghilangkan kuman atau mengurangi kemungkinan infeksi.

Akses ke air minum yang aman dan bersih masih menjadi permasalahan meskipun terdapat banyak program pemerintah yang bertujuan untuk mengatasi masalah ini. Ini menyebabkan beberapa masyarakat kesulitan untuk memperoleh air bersih, terutama di musim kemarau.

Di beberapa kasus mereka melakukan kebiasaan-kebiasaan yang kurang efektif dalam membersihkan air seperti memberi *tawas* (*potassium alum*) pada air. Fasilitas air seringkali rusak, tidak terawat dan/ atau tidak bekerja dengan baik selama musim kemarau.

Sampah terlihat di semua lokasi, terutama di belakang rumah dan banyak keluarga membakar sampah mereka secara rutin. Akan tetapi, keluarga dengan akses ke laut atau sungai biasanya membuang sampah mereka di sana.

Sistem pembuangan sampah yang dikelola oleh masyarakat secara bergiliran telah berjalan dengan baik selama lebih dari satu dekade di beberapa lokasi studi.

Musim mempengaruhi banyak aspek kehidupan di semua lokasi studi, termasuk akses ke makanan, air, mata pencaharian dan kesehatan. Para peneliti tinggal bersama masyarakat selama musim kemarau dan merasakan tantangan-tantangan utama yang dihadapi pada periode tersebut.

Masyarakat secara umum merasa mereka, secara keseluruhan, sehat. Diare tidak dianggap sebagai permasalahan kecuali di Kalimantan Tengah. Di Kalimantan Tengah, diare lebih banyak disebabkan oleh faktor eksternal, seperti: polusi sungai, makan kemasan dan obat-obatan, daripada faktor -faktor terkait kebiasaan mereka di bidang kesehatan dan higiene.

Makanan, khususnya nasi, kerap dipanaskan kembali atau dimasak sekali lalu didiamkan selama beberapa jam atau hari sebelum dikonsumsi. Tidak seorangpun dalam studi ini yang melihat adanya hubungan antara penyakit tertentu dengan nasi yang dipanaskan kembali. Di Kalimantan Tengah, masyarakat menyimpan ikan sungai selama beberapa bulan baik dalam wadah tertutup atau dikeringkan dengan memberikan garam, namun kami melihat adanya belatung dan lalat pada ikan yang dikeringkan maupun yang ada di dalam wadah tertutup tersebut.

Kebiasaan yang kurang baik terkait higiene, pemberian makanan bayi dan ASI ditemukan di berbagai tempat. Masih terlihat adanya kebingungan terkait memberikan kolostrum karena masih ada orang yang menyebutnya sebagai susu ‘kotor’ atau ‘basi’.

Tidak ada ibu yang memiliki kebiasaan memberi ASI eksklusif pada enam bulan pertama. Makanan padat dan jenis minuman lain biasanya diperkenalkan sedini mungkin (bahkan pada minggu-minggu pertama). Secara umum, masyarakat lebih mengetahui berbagai jenis susu formula daripada kebiasaan-kebiasaan memberi ASI yang baik.

Banyak orang tua dapat menjelaskan perbedaan susu formula untuk berbagai kebutuhan bayi. Mereka mengasosiasikan merek susu formula tertentu dapat memberikan manfaat yang spesifik seperti membuat bayi gemuk, tinggi atau pintar. Informasi dan ‘kesadaran’ ini diperoleh dari TV dan iklan.

Penyakit pada bayi dianggap sebagai hal yang ‘normal’ dan bukan sesuatu yang harus dikhawatirkan. Batuk, demam dan hidung meler dianggap sebagai bagian dari pertumbuhan anak dan pada beberapa kasus hal tersebut dianggap sebagai pertanda bahwa anak tersebut ‘mau pintar’. Bayi diberikan bermacam-macam benda seperti korek gas (*lighter*) dan botol plastik untuk dikunyah ketika mereka sedang dalam masa tumbuh gigi.

Secara keseluruhan para ibu tidak menyebutkan adanya kebiasaan dan perubahan khusus terkait asupan makanan selama masa kehamilan. Para ibu di hampir semua lokasi studi memiliki hubungan saling percaya dengan dukun beranak yang ada di daerah mereka.

Banyak ibu yang mengatakan bahwa mereka mengunjungi posyandu dan anak mereka memperoleh imunisasi rutin. Meskipun posyandu diselenggarakan secara rutin, namun menurut para ibu sangat sedikit informasi yang diberikan kepada mereka dan di beberapa lokasi mereka tidak mengetahui tujuan imunisasi terhadap kepada anak mereka.

Kami melihat adanya perasaan malu yang dirasakan oleh beberapa ibu yang memperoleh makanan tambahan di posyandu karena mereka merasa dianggap sebagai orang tua yang buruk oleh petugas kesehatan dan sesama pengunjung posyandu.

Penekanan terhadap pentingnya meningkatkan berat badan di posyandu bisa jadi mendorong masyarakat untuk memberikan makanan padat ke bayi mereka sedini mungkin.

Elemen penting yang ditemukan pada seluruh lokasi studi dan temuan studi ini adalah kurangnya informasi yang berguna tentang nutrisi, higiene dan kesehatan bayi.

Pemahaman dan kebiasaan seringkali diturunkan dari orang tua mereka sekalipun ada banyak sekali program dengan skala besar seperti Sanitasi Total Berbasis Masyarakat (sering juga disebut dengan *Community Led Total Sanitation* atau CLTS) dan PNPM Generasi.

Umumnya informasi yang diberikan oleh penyedia layanan sangat terbatas. TV dan iklan menjadi sumber informasi yang sangat penting, terpercaya dan pesan-pesan yang disampaikan dianggap sebagai informasi faktual.

Keputusan dan kebiasaan masyarakat juga dipengaruhi oleh keinginan untuk mengadopsi gaya hidup 'modern' yang mereka lihat di TV dan sebagai akibat dari meningkatnya interkoneksitas dengan pusat kota. Sebagai contoh, remaja di Sulawesi Utara menggunakan sampo, deodoran, minyak wangi dan *body lotion* dengan jumlah yang banyak guna terlihat menarik dan berbau harum. Beberapa orang menggunakan sabun cuci piring 'Sunlight' untuk mencuci tangan mereka sesudah makan agar 'berbau harum'.

Kami menyimpulkan melalui diskusi tentang beberapa 'teka-teki' seputar higiene dan nutrisi yang disoroti oleh komisioner studi ini, terutama terkait: kenapa *stunting* terus ada; variasi-variasi regional; pengetahuan terhadap program makanan tambahan; pilihan makanan; ASI eksklusif; akibat dari buang air besar di ruang terbuka.

Implikasi-implikasi kebijakan disajikan dari sudut pandang penulis dan disusun di sekitar elemen yang dianggap penting terhadap perubahan perilaku. Elemen-elemen tersebut muncul dari diskusi dan analisis dari temuan-temuan, antara lain:

- Apakah Ada Motivasi Untuk Berubah? Karena masyarakat tidak melihat adanya kebutuhan mendesak untuk merubah perilaku terkait nutrisi dan higiene mereka saat ini, pemicu dan motivasi yang tepat perlu diidentifikasi dan digunakan untuk mendorong perubahan perilaku yang positif. Hal ini termasuk: pemanfaatan media yang dipercaya seperti TV untuk mempromosikan aspirasi yang mudah dipahami, jelas dan kontemporer daripada pesan-pesan yang bersifat instruktif; memperkenalkan pilihan-pilihan hemat biaya yang dapat meningkatkan kebiasaan-kebisaan baik terkait nutrisi dan higiene; mendukung peningkatan ketersediaan produk lokal yang berkualitas dan sehat serta mendorong pengolahan lokal produk paska-panen.
- Mengatasi Permasalahan Akses ke *Means for Change*: peningkatan rancangan fasilitas air dengan mempertimbangkan musim, kualitas konstruksi yang lebih baik dan iuran wajib untuk perawatan. Mempertim-bangkan penyediaan 'toilet bersama' yang dipelihara dan dibersihkan secara bersama oleh rumah yang saling bertetangga daripada penyediaan toilet umum. Lebih berhati-hati dalam menentukan lokasi toilet bersama maupun umum di desa dan memastikan air tersedia setiap waktu.
- Pengetahuan dan Aplikasi Masyarakat: pergeseran penekanan dari pembuatan sarana infrastruktur (*hardware solution*) yang lebih mudah untuk dibuat laporannya, dan lebih berfokus kepada usaha-usaha perubahan kebiasaan masyarakat (*software processes*). Mentargetkan laki-laki dan anak-anak untuk program peningkatan kesadaran sanitasi. Memberdayakan kader yang terpercaya di desa untuk melakukan lebih banyak program penyuluhan dan perawatan yang berbasis rumah tangga untuk menghindari stigma dan rasa malu. Menghubungkan sebab atau akibat untuk menimbulkan pemahaman baru. Memprioritaskan kebijakan dan intervensi yang sesuai konteks di area yang terdapat kebiasaan-kebiasaan buruk.
- Pengaruh-Pengaruh dan Dukungan: pemanfaatan TV dengan cara yang lebih kreatif dan menyisipkan pesan-pesan di acara-acara yang populer dan untuk menginspirasi gaya hidup masyarakati. Mengatur iklan layanan masyarakat agar tidak disalahartikan dan tidak mendorong kebiasaan buruk. Lebih memberdayakan pengaruh kader dan 'dukun beranak' dengan menyediakan mereka informasi yang akurat sehingga mereka dapat mempraktikkan, menginformasikan dan mempengaruhi perubahan kebiasaan di daerah mereka.

Summary

The Reality Check Approach Study was jointly commissioned by a group of stakeholders including the World Bank, KOMPAK and the Knowledge Sector Initiative. The study was conducted in September 2015 and it was designed to understand the nuances of hygiene and nutrition behaviour from the perspective of families living in poverty.

The RCA is an internationally recognized qualitative research approach that requires the study team to live with people in poverty in their own homes for a period of time and to use this opportunity to have many informal conversations and interactions with all the members of the household, their neighbours and with the service providers with whom they interact. The emphasis throughout is on informality in people's own space and with the least disruption to their everyday lives. This 'hanging out' without note-taking and formal structure provides the best possible conditions for trust building and openness.

Furthermore, it enables the study team members to triangulate the conversations from multiple sources and enrich these with their own observations and experiences *in situ*.

The study was undertaken in the same 3 provinces (Central Kalimantan, Maluku, and North Sulawesi) and same districts as those chosen for the Frontline Service Providers RCA study to enable further examination and triangulation of the dynamics between the community and frontline service providers. The districts were purposefully selected on the basis of relatively poor health performance indicators using data from Riskesdas 2013.

All study households were selected by individual team members through informal discussions with people in the community. The team made it clear that we had a special interest in understanding the lives of 'those left behind' as well as the experiences of the ordinary. In total, the study included living with a total of 21 host families, and having detailed conversations with a further 1844 people in the communities in which they live.

The study report presents the findings on people's perspectives and current practice of nutrition and hygiene, augmented with RCA team observations and experience. Careful distinctions are made in the text and the text boxes between people's opinions and discussed perceptions, and the experiences and observations of the researchers. In the final section some policy implications are drawn from the study which are intended to be taken forward in policy dialogue

People's diets have evolved and adapted with 'modern' times and traditional staple foods are being replaced with rice, noodles and packaged products. An increased cash based economy is also enabling families to purchase a broader range of products. However, even though there are some perceived understandings on what is 'healthy' (local products, fresh food, fish) and 'unhealthy' food (packaged food, MSG, 'food from outside'), decisions around diet are often based around convenience and availability rather than ensuring diets are balanced and healthy. Being full is seen to be of more importance than full with what. Spare cash is more likely to be used to buy snacks and convenience packaged food rather than vegetables and/or fruit.

People drink a lot of tea and coffee, always with large amounts of sugar, with children and babies in some locations also having coffee directly in their baby bottles and/or mixing it with rice in the morning. Coffee is drunk, often accompanied with cigarettes by men, to provide energy in the morning and also as an appetite suppressant. Alcohol, often locally made, is drunk in many locations and often associated with special occasions or to help 'warm up' sea fishermen after returning from fishing.

Preference for snacking and drinking sweet drinks is particularly prevalent among children. Older adults even complained that the younger generation eat too many snacks and are consequently less strong than they feel they were at their age.

Children demonstrate marked agency in choosing what food they buy and feel a sense of empowerment and status in being able to choose to purchase snacks and to share them with their class mates. There is peer pressure around being able to purchase snacks in school. Some children from families with access to cash choose to skip breakfast so they can buy snacks at school instead. This trend is being exacerbated by the ready availability of snacks at school, with teachers and/or students selling the snacks at the school itself in some locations.

Men and children consistently told us they preferred to defaecate in the open (river, beach, bush). This is because it is more convenient and/or there is guaranteed free flowing water which makes it easier to wash and 'freshen' oneself at the same time. A growing preference is found among women to use private toilets rather than open defaecation This is most likely due to feelings of increased safety and privacy along with convenience, and also in some cases the apparent growing aspirations to own a private toilet. In all locations people seem unconcerned about the disposal of baby faeces and in some locations floor boards are removed from their the stilted houses so babies (and people with disabilities and the elderly) could defaecate through the gap.

Almost all villages had public toilets but these are never noted as a preference and most are rarely being used. Public toilets are often broken, poorly maintained and/or do not have a water supply. Often public toilets are located in inappropriate locations: on the land of authorities (head teacher, village head), on the main street where there is no privacy or too far from people's houses.

Cleanliness is associated with visually not being dirty. This includes clean water being clear water; household floors and front yards being frequently swept clean; bathing regularly; washing hands before and after eating; washing dishes and utensils conscientiously with soapy water using a two bucket system. These actions are all primarily done to remove dirt or smells.

People said clean is the opposite of dirty which implies something you can see such soot, mud and dust. Cleanliness is not associated with removing germs or reducing the possibility of infections.

Access to safe, clean drinking water remains problematic despite widespread government programs seeking to address this problem. This has resulted in some communities struggling to access safe water, especially in the dry season, and in some cases ineffective practices being undertaken to treat the water such as the use of *tawas* (potassium alum) alone. Water facilities are often broken, poorly maintained and/or not effectively operating during the dry season.

Garbage is visible in all the locations, in particular behind houses and many families burn their own garbage periodically but those with access to the sea or river usually throw their trash there. Locally arranged community rota garbage sweeping systems have been effectively working in some locations for decades.

Seasonality affects many facets of life in all the study locations, including food and water accessibility, income earning opportunities and health. Researchers stayed in the communities during the dry season and experienced the particular context specific challenges faced at this time.

People in general feel they are, on the whole, healthy. Diarrhoea is not raised as a common problem except in C Kalimantan where the cause is associated with external factors related to such things as the pollution of the river, packaged foods and medicine, rather than any reference to their current health and hygiene practices.

Food, and in particular rice, is often re-heated or cooked once and allowed to cool down slowly over many hours or days before being consumed. Nobody in the study linked any illness to re-heated rice consumption. In C Kalimantan, people preserved river fish for months at a time either in closed containers or by salting it, however it was observed that maggots and flies had gathered over the drying fish and inside containers.

Poor practices around baby hygiene, feeding and breastfeeding are widespread. There is still confusion about feeding colostrum with some saying it is 'dirty ' or 'expired milk'. No mothers practice exclusive breastfeeding for the first six months. Solids and other liquids are commonly introduced as soon as possible (even as early as the first couple of weeks). In general, people know more about different types of baby formula than they do about good breastfeeding practices. Many mothers and fathers could describe different types of formula for different needs, with specific benefits such as making a baby fat, tall or smart associated with particular brands. This information and 'awareness' has been picked up from TV and adverts.

Baby sickness is seen as 'normal' and not something to be worried about. Coughs, fevers and running noses are seen to be part of the child's development and in some cases indicating that they '*mau pintar'* (want to be smart). Babies are given a variety of items such as cigarette lighters and plastic bottles as pacifiers and/or for chewing on when they are teething.

Overall mothers do not mention any specific practices or changes in food intake during pregnancy. Mothers in almost all study locations have a trusted relationship with their local traditional midwife.

Many mothers said they visit their local *posyandu* and their children are getting regular immunizations. Although *posyandus* are regular, mothers said that little information is provided to them and in some locations mothers are not aware of what their children were being immunized for. Also a sense of embarrassment and shame is felt by some mothers who are offered food supplements at the *posyandu* as they feel judged for being poor parents by health staff and fellow *posyandu* clients. The emphasis on weight gain at the *posyandu* actually may be encouraging people to provide their babies with solid foods too early.

A key element cutting across all the study locations and findings is the sporadic and lack of useful information on nutrition, hygiene and baby health. Understanding and practices are often passed down from parents and despite large scale programmes such as Community-Led Total Sanitation and PNPM Generasi, there is limited and variable information provided from public frontline service providers. TV and advertising have become important and trusted sources of information and messages and are taken literally as factual information.

Peoples' decisions and behaviours are also influenced by the desire to adopt elements of a 'modern' lifestyle that they are exposed through TV and as a result of increased inter-connectivity with urban centres. For example, teens in N Sulawesi use shampoos, deodorants, perfumes and body lotions in large quantities in order to smell and look good. Other people use 'Sunlight' dish washing liquid on the hands after eating so they 'smell nice'.

We conclude with a discussions around some of the 'conundrums' around hygiene and nutrition highlighted by the study commissioners, in particular relating to: why stunting persists; regional variations; insights into supplementary food programs; food choices; exclusive breastfeeding; the effect of open defeacation.

The policy implications are provided from an authorial perspective and structured around the elements considered essential for behaviour change. These elements emerged from discussion and analysis of the findings and included:

- Is there Motivation For Change? Given that people do not perceive there is a strong need to change their current nutrition and hygiene behaviours, the right triggers and motivations need to be identified and exploited to promote positive behaviour change. These include: utilising the trusted medium of TV to promote simple, clear and contemporary aspirational rather than instructive messages; promoting cost cutting and cost saving choices that are beneficial for improved nutrition and hygiene practices; promoting increased availability and convenience of healthy local products and encouraging local post harvest processing.
- Addressing the problems of access to means for change through: Improvements in the design of water facilities taking into account seasonality affects, better quality construction and mandatory funds for ongoing maintenance; considering providing 'shared' toilets which are collectively maintained and cleaned by neighbouring households rather than public toilets; more carefully considering the location of the shared/ public toilets within the village; and ensuring toilets have readily available water access at all times.
- People's Knowledge and Application: changing the emphasis for action away from 'hardware' solutions which are easier to report against, to focus more on 'software' processes; targeting men and children for sanitation awareness raising programs; to avoid stigma and shame providing more homebased advice and care and in particular utilising the trusted cadres and/or TBA; building on emerging new knowledges and linking these to the causes or impacts; prioritising context specific policies and interventions where the current practices are bad.
- Influences and Support: Utilising TV in more creative ways and embedding messages in popular programs and aligned with aspirational lifestyle choices; regulating adverts so that messages are not being misinterpreted and bad practices are not being encouraged; utilising the influence of cadres and TBAs more and providing them accurate information so that they can practice, inform and instigate changes in practices.

INTRODUCTION

This Report presents the main findings of the Reality Check Approach (RCA) study which was conducted in September 2015 and designed to understand the nuances of hygiene and nutrition behaviour from the perspectives of families living in poverty. This Study is commissioned by a group of stakeholders including the World Bank and KOMPAK and implemented by the RCA+ project with financial support from the Government of Australia through the Knowledge Sector Initiative.

In response to the implementation of the recent Village Law No.6/2014 and changes in National Health Insurance (Jaminan Kesehatan Nasional), the World Bank's Health, Nutrition and Population (GHNDR) and Urban, Rural and Social Development (GSURR) teams and KOMPAK are developing strategies to support the 'frontline' approach to enhance quality service delivery for health at the local level.

There is a growing shared-interest to adopt more 'community-focused' programming which consequently requires a better understanding of local practices, contexts and how people experience and currently manage their health and nutrition. Up to date insights into the ground realities of current hygiene and nutrition behaviours can be channelled into the ongoing policy dialogue process for more responsive health programming and effective resource allocation. This study is complementary to the Frontline Health Service Providers RCA study conducted in July/August 2015. The timing of this study is particularly pertinent as the new Village Law comes into full operation. The intention of this law is to transfer revenue from the central government directly to village level for resourcing local public services allowing for local responsiveness and adaptability.

During preliminary meetings held in April 2015 with the World Bank Health, Nutrition and Population team and partners, a range of 'conundrums' were highlighted which would benefit from further exploration through the RCA study. These were:

- While the stunting rate in Indonesia has been widely acknowledged to affect 37% of children under 5, with levels as high as 50% in some regions[1], root causes (why and how) of stunting remain unclear. Why does stunting continue to persist? Is it poor knowledge and practice around infant and young child feeding, limited access to food (including costs), continued traditions of child rearing practices, culture and local/religious beliefs or limited health outreach/counselling or other causes?
- Despite the generally reasonable access to public health care and media coverage particularly around chronic under-nutrition, maternal and child health issues continue to disproportionately affect some regions in the country[2]. More understanding on regional variation (particularly around behaviours and perspectives) is sought.
- Caring practices of mothers and/or other caregivers and the dynamics of interactions in the family and beyond (community) remain insufficiently understood. The role and effectiveness of health providers, both formal and informal, in advising and counselling needs further understanding.
- Evaluation of PNPM Generasi indicated that 41% of block grants were spent on the provision of supplementary food[3] especially for malnourished children in the community and was reported to have some impact on this problem[4]. It is important to understand better the contributions of this as well as other public, private and community led programmes to provide insights in what works and how people perceive and experience these programmes.
- Factors influencing people's behaviours in terms of food choice and preference need further understanding. The increasing use of instant foods and snacks in the diet, which seems to be condoned sometimes by health providers and in locations where healthy alternatives are plentiful and cheaper needs to be explored and the motivations understood better.
- Further insights into roles in the family and community will help identify who is involved in making health and nutrition decisions for the family and to whom parenting advice should be directed. Understanding how information is shared and whose advice is listened to and trusted will provide insights for developing Information, Education and Communication (IEC) strategies.

[1]RISKESDAS 2013 Report
[2]Impact evaluation of PNPM Generasi in 2008/2009 indicates that Generasi is attributable to reduced childhood malnutrition overall.
[3]Indonesia's PNPM Generasi Program: Final Impact Evaluation Report, June 2011
[4]Major spending on supplementary food may also indicate some procurement benefits that accrue to various layers of health bureaucrats, suggesting relevance to the Frontliners Study.

- Despite reported knowledge on the health benefits of exclusive breastfeeding, breastfeeding practices remain inconsistent amongst mothers. Understanding why this is the case and current practices and beliefs around breastfeeding is important. Are there external factors affecting behaviour such as media adverts, influence of health workers, role models, family or others.

RCA field teams' experience from previous studies also found that:

- Despite poor coverage of toilets and sanitary facilities and poor hygiene practices, incidence of diarrhoea and water-borne diseases varies across communities with some, counter intuitively, better off than the others. Deeper understanding of local practices and possible insights into positive deviance in the community which could be useful in the development of appropriate hygiene intervention strategies and tailoring programmes to embrace the local realities.

This RCA study was intended to shed light on some of the 'conundrums' above. The study sought to understand the nuances of hygiene and nutrition behaviour from the perspectives of families living in poverty.

The study also opportunistically examined the dynamics between the community and frontline health providers, to complement and triangulate the research study separately undertaken what focused on frontline services in health.

RCA studies provide opportunities not only for listening to people but also for observing and experiencing their reality. Insights are gathered *in situ* so that the context is fully appreciated in analysis of findings. The pooling of information from these several sources of information is particularly insightful for studies on knowledge, attitudes, behaviour and practice.

Structure of this report

This report begins with an overview of the Reality Check Approach (RCA) methodology, including adaptations made for this study as well as study limitations. The following section 1 presents the main Findings and is divided into 5 sections: current observed, experienced and discussed practices; physical access and means; people's knowledge and the application of good practices; baby nutrition and hygiene; and, finally, looking at the key influences and influencers. This report concludes with policy implications that have been drawn from the analysis and discussions of the findings.

METHODOLOGY

The Reality Check Approach (RCA) is a qualitative approach in which trained researchers gather in-depth qualitative data through a multi-night immersion, open conversation and participant observation. This informal approach provides a context that enables the researcher to gain insights into the reality facing the people with whom they stay, their neighbours and the wider community. The main idea is to have sustained, detailed conversations and intense interactions with a small number of people in their own homes. Sharing in their lives provides opportunities to better understand and contextualise people's opinions, experiences and perspectives. The RCA is generally intended to track changes in how people live and experience their lives and usually involves repeating the RCA with the same people at approximately the same time each year over a period of several years.

The Reality Check Approach extends the tradition of listening studies (see Salmen 1998 and Anderson, Brown and Jean 2012[5]) and beneficiary assessments (see SDC 2013[6]) by combining elements of these approaches with researchers actually living with people whose views are being sought, usually those who are directly experiencing the issue under study.

RCA is sometimes likened to a 'light touch' participant observation. Participant observation involves entering the lives of the subjects of research and both participating in and observing their normal everyday activities and interactions. It usually entails extensive and detailed research into behaviour with a view to understanding peoples' perceptions and their actions over long periods of time.

[5]Salmen, Lawrence F. 1998. "Toward a Listening Bank: Review of Best Practices and Efficacy of Beneficiary Assessments". Social Development Papers 23. Washington: World Bank.
Anderson, Mary B., Dayna Brown, Isabella Jean. 2012. Time to Listen; Hearing People on the Receiving End of International Aid. Cambridge MA:CDA.
[6]Shutt, Cathy and Laurent Ruedin. 2013. *SDC How-to-Note Beneficiary Assessment* (BA). Berne: Swiss Agency for Development Cooperation.

The Reality Check Approach is similar in that it requires participation in everyday life within people's own environments but differs by being comparatively quick and placing more emphasis on informal, relaxed and insightful conversations than on observing behaviour and the complexities of relationships.

Important characteristics of the Reality Check Approach are:

- Living with rather than visiting (thereby meeting the family/people in their own environment, understanding family/home dynamics and how days and nights are spent);
- Having conversations rather than conducting interviews (there is no note taking thereby putting people at ease and on an equal footing with the outsider);
- Learning rather than finding out (suspending judgement, letting people take the lead in defining the agenda and what is important);
- Centering on the household and interacting with families/people rather than users, communities or groups;
- Being experiential in that researchers themselves take part in daily activities (collecting water, cooking, work, hanging out) and accompany people (to school, to market, to health clinic);
- Including all members of households
- Using private space rather than public space for disclosure (an emphasis on normal, ordinary lives);
- Accepting multiple realities rather than public consensus (gathering diversity of opinion, including 'smaller voices')
- Interacting in ordinary daily life (accompanying people in their work and social interactions in their usual routines)
- Taking a cross-sectoral view, although each study has a special focus, the enquiry is situated within the context of everyday life rather than simply (and arguably artificially) looking at one aspect of people's lives;
- Understanding longitudinal change and how change happens over time.

All the researchers kept their own field notes but they never wrote these in front of people they were conversing with. To illustrate context and findings, photos were taken, all with the consent of the people concerned. These narratives and visual records formed the basis of detailed one day debriefing sessions held with each of the six sub-teams as soon as possible after each round of the study was completed.

These were led by the Study Team leader or Technical Advisor and provided an important opportunity to further triangulate findings. These de-briefings were captured in rich note form and comprise the core documentation for this study.

Following the completion of all study rounds a sense making workshop was held with the research team to collectively review and analyse the findings to draw together some of the key patterns that emerged from the data.

Study participants and locations

Location

The study team purposefully selected the same 3 provinces and same districts as those chosen for the Frontline Service Providers RCA study to enable further examination and triangulation of the dynamics between the community and frontline service providers. The districts were selected on the basis of relatively poor health performance indicators using data from Riskesdas (*Riset Kesehatan Dasar*/National *Basic* Health Research)[7] 2013 including the following;

- Use of health facilities for labour/ delivery, completion of ante-natal check-ups.
- Low Birth Weight
- Low weight (0-59 months) <2500 gr/ height <48 cm
- Stunting
- Wasting
- Ratio of Weight/Height
- Sanitation status and access to clean water
- Low height 5-12 years of age
- Low weight 5-12 years of age
- Overweight & Obese 5-12 years of age
- Overweight & Obese 13-15 years of age
- Male adult obesity >18 years of age
- Female adult obesity >18 years of age

Sub-districts were chosen for this study based on additional factors such as :

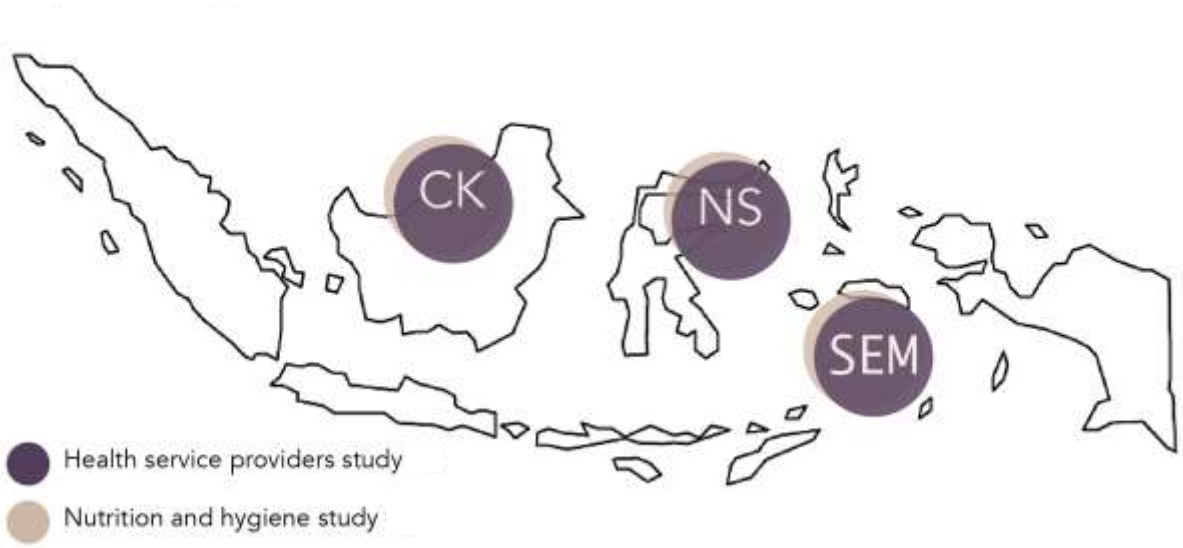
- **Access**: mix of remote/accessible
- **Geography:** coastal/inland characteristics.
- **Religion**: food and hygiene behaviours are often particularly circumscribed by religion so the selection of locations included this as a parameter.

A total of 6 locations were selected which were:

Location	Sub location	Sub location
Maluku	Rural (very remote coastal SE Maluku)	Rural (coastal SE Maluku)
North Sulawesi	Peri urban (coastal N Sulawesi)	Peri urban (inland N Sulawesi)
Central Kalimantan	Peri urban (inland C Kalimantan)	Rural (remote inland C Kalimantan)

[7] http://www.depkes.go.id/resources/download/general/Hasil%20Riskesdas%202013.pdf

Locations for this study and the complementary RCA study on health front-line service provider



During a sense making workshop following the sub-team debriefings the entire research team reflected on what people's perceptions of poverty were in their locations. A range of characteristics were drawn up which were commonly raised as key determinants by people themselves. These included: means of production (e.g. equipment); regularity of income; access to cash; access to free food; electricity; village leadership; remoteness; and types of houses.

The study teams then scored each of the locations against these characteristics and analysed the results to develop an overall contextual assessment of the comparable levels of poverty between the locations pertinent to the characteristics identified by people in the villages. This table shows our assessment from perceived least poor to the poorest locations:

	Location	Key Characteristics
Least Poor		
	NS-2	Peri-urban inland location relatively close to 2 urban centres, well networked villages with good access to markets and access to wider work opportunties (such as mining and clove plantations). Fertile soil and diverse range of crops grown. Good quality housing appearance from the front, with more simple construction at the back and rubbish heaps behind the houses.
	NS-1	Peri-Urban location well-connected with a main urban centre with extensive fishing (including profitable deep sea fishing), some service based opportunities and contruction work, and limited copra cultivation.
	SEM-2	Coastal fishing community with some recent road construction which has provided some limited work opportunities and growing access to cash and markets. Some cultivation including timber.
	CK-2	Remote rural location alongside a polluted river with seasonal working opportunities such as gold mining providing access to cash; self sufficient crops, and relatively weak village leadership.
	CK-1	Peri-urban location along main polluted river, with some work opportunities in coal mining, birds nest cultivation and fishing; self sufficient crops and yearly flooding.
	SEM-1	Very remote isolated island fishing community with poor access, poor roads (no motorbike ownership), limited work opportunities and limited means to obtain cash. Widespread social assistance received in the villages.
Poorest		

The study team

The study team was composed of 12 researchers, including two international researchers and 10 Indonesian researchers (see Annex 1). One international researcher was accompanied by an Indonesian researcher/translator while the other is fluent in Bahasa Indonesia. All researchers and researcher/translators had participated in a full Level 1 RCA training. The three main sub teams were led by experienced Indonesian RCA practitioners.

Study participants

Host Households

All study households were selected by individual team members through informal discussions with people in the community (e.g. at teashops) *in situ.* The team made it clear that we had a special interest in understanding the lives of 'those left behind' as well as the experience of the ordinary. Care was taken to ensure that people understood the nature of the RCA and the importance of staying with ordinary families and not being afforded guest status.

The team members entered communities independently on foot in order to keep the process 'low key'. The households selected were at least 15 minutes walk away from each other and, where possible, even further away to ensure interaction with a different constellation of focal households and other community members. Each team was comprised of three to four team members so that the study involved living with a total of 22 families. In the course of the study, team members also interacted closely with the neighbours (on average about 4 additional households) of the host household. In addition the teams had further opportunistic conversations with other members of the community including local informal and formal service providers. See annex 4 for profiles of the host households.

At least 1800 people participated in the study, although in depth information was be mostly gathered from the HHH (approximately 90 people).

Study Participant	Anticipated Number	Intention
Families living in poverty with young children/infants (Hosting households HHH) Purposeful inclusion of families with women who are pregnant and elderly people.	18 families	Close interaction and conversations with all members of the family to understand perspectives from the family with children/infants in terms of their day-to-day hygiene and nutrition behaviour, priorities, access and challenges to meet basic needs.
Neighbours, including those with young children/infants (Focal Households FHH)	Approx. 54 families	Less detailed interaction than HHH, mostly conversations to explore diversity of family experience and perspectives and to generate a wider view of hygiene and nutrition behaviour patterns in the community, provide context for the observations and experience in the HHH
School -age children (in addition to the HHH/FHH)	minimum 90	Opportunistic interactions to explore behaviour, knowledge and aspirations
Service providers (education, health and others)	Minimum 54	Opportunistic engagement for informal conversations to explore their role, behaviour and practice as well as their perceptions of community hygiene and nutrition
Kiosk owners, food sellers, teashop owners, places of entertainment	Minimum 36	To explore their view of hygiene and nutrition, practices, knowledge (local wisdoms), community context.
Community people	Minimum 180	Contextual conversations as well as triangulation

Each team member discreetly left a 'gift' for each family on leaving, comprising food items to the value of around IDR 150,000 to compensate for any costs incurred in hosting the researcher. As researchers insist that no special arrangements are made for them, they help in domestic activities and do not disturb income-earning activities, the actual costs to 'hosts' are negligible. The timing of the gift was important so people did not feel they were expected to provide better food for the researchers or get the impression that they were being paid for their participation.

Study areas for conversation

RCA is not a theory based research method although it often generates people's theories of change and contributes well to grounded theory approaches. It does not have a pre-determined set of research questions relying as it does on iterations from information gathered *in situ* and building on progressive series of conversations. However, as part of the briefing process for researchers areas for conversations were developed to act as a guide to ensuring that conversations were purposive. The outcome of the deliberations with the research team are provided in Annex 2 Areas for Conversations.

Ethical considerations

Like most ethnographic based research, there is no intervention involved in RCA studies. At best the study can been viewed as a way to empower the study participants in that they are able to express themselves freely in their own space. Researchers are not covert but become 'detached insiders'. As per American Anthropological Association Code of Ethics, RCA adopts an ethical obligation to people *'which (when necessary) supersedes the goal of seeking new knowledge'*. Researchers '*do everything in their power to ensure that research does not harm the safety, dignity or privacy of the people with whom they conduct the research*'. All researchers are briefed on ethical considerations and Child Protection Policies before every field visit (irrespective of whether they have previously gone through this). All researchers sign Code of Conduct and Child Protection Policy declarations as part of their contracts. All data (written and visual) is coded to protect the identity of individuals, their families and communities. As a result the exact locations and identities of households and others are not revealed in this report.

Study limitations

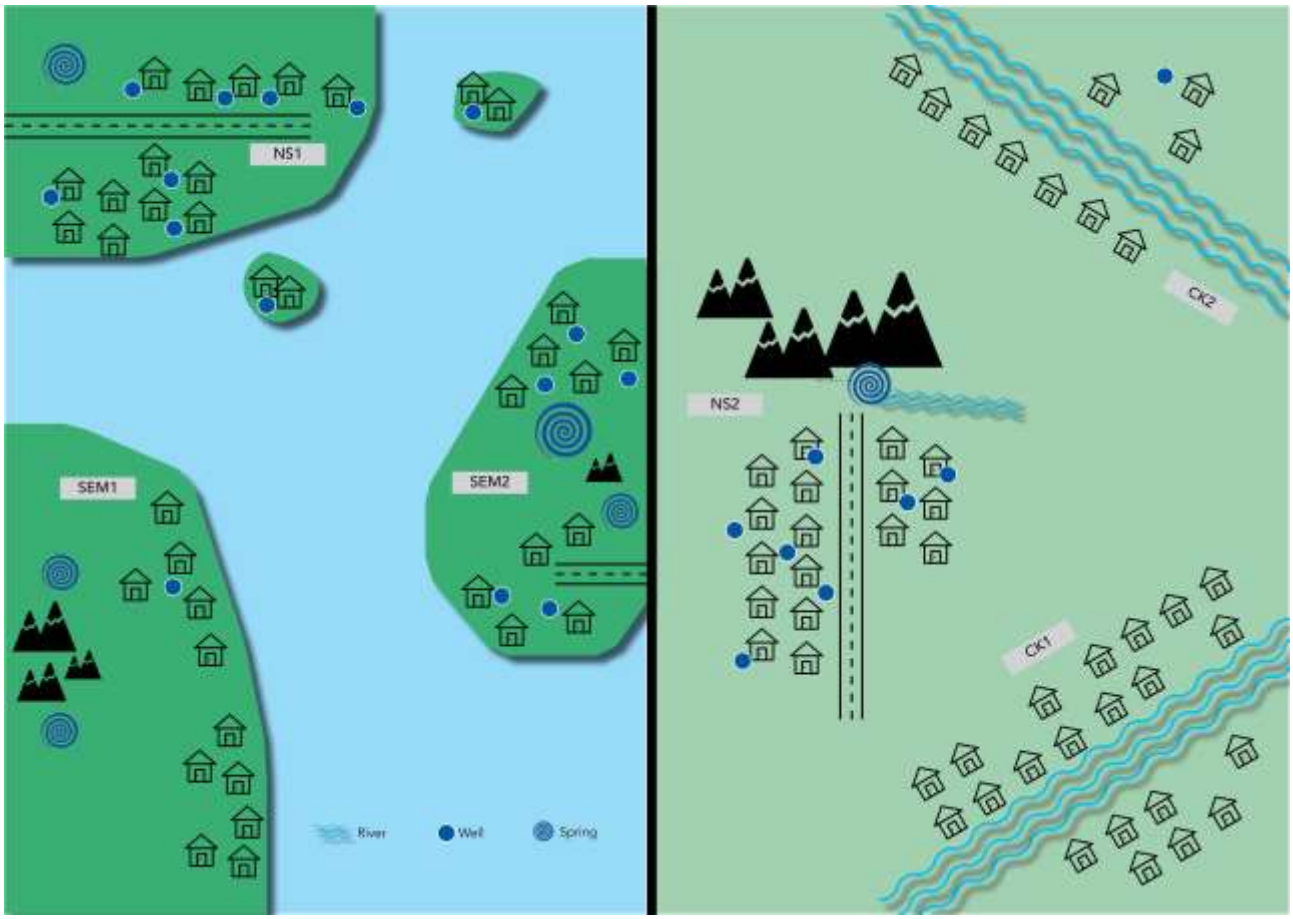
As with other research methods, this study has a number of limitations

- The study purposively selected the same provinces and districts as the Frontline Health Providers RCA study but different sub-districts. Some of the villages selected were too small for the sub-team of 3 or 4 researchers to stay and work independently from one another. Therefore in 4 locations the sub-teams ended up staying in separate villages but ensured the same sub-district level frontline services (*puskemas*, high schools) were serving the different villages. This had some effect on the sub-team's ability to triangulate as different villages were experiencing different contextual challenges.
- Although most villagers in all locations are familiar with Bahasa Indonesia, the study team nevertheless experienced some language issues, particularly with the elderly and young children. At times people also switched to their local dialects when talking in groups or about sensitive matters, making some conversations difficult to follow.
- The study was conducted during the dry season and given the focus of this study this presented specific seasonal challenges. In particular the water access in some locations was much more difficult during the dry season, which impacted hygiene practices and behaviours. While the study findings should therefore be read in the context of the seasonal issues, it is also very pertinent for understanding the nature of the challenges.

- In relation to the seasonal impacts, this also had a bearing in some study locations (such as C Kalimantan) on the ability to interact with a wide range of people in the village as many were working in gold mining and away from the village from dawn until dusk.
- Due to some community suspicions regarding outsiders in very remote coastal SE Maluku and coastal N Sulawesi, one researcher in very remote coastal SE Maluku and one researcher in inland N Sulawesi were asked to stay in the homes of village leaders. While the researchers were still able to interact with others in the community, this meant the majority of their time was spent with families of a higher social status who did not necessarily represent more typical experiences for people in that community.
- In coastal SE Maluku, two of the researchers' stays came during an annual weeklong Church anniversary celebration which meant that many people's daily activities were different than a normal week, however this also meant more people were in the village during the day (rather than, for example, going to their gardens outside of the village).

RCA, like other research methods is only as good as the recognition and mitigation of bias. Annex 5 provides information on how the RCA research acknowledges, reflects and consist

The Setting



The findings are presented from the perspectives of people, shared with us through conversations and demonstration but are augmented by our own observations and experiences. Our own observations and experiences are generally separated from the text and highlighted by appropriate symbols.

Researchers' Field Diary

Researchers' Observations

Researchers' Experience

We have laid out the findings in a way to illustrate the elements usually considered essential for behaviour change; i. people's motivation and assessment of the need for change, ii. people's access to the means for change, iii. people's knowledge and application of good practice and iv. influences and support for change.

As baby hygiene and nutrition is such an important element of this study, we have devoted a specific section to this.

FINDINGS

What people eat:

The most common meal across study locations is fish and rice and people said this was the '*best food*' and is eaten one or two times (sometimes three times) per day. The fish is either sea fish (caught by themselves or neighbours in N Sulawesi or SE Maluku) or river fish (in the C Kalimantan locations) which is eaten fresh or preserved in some way. Sharing of fish catches between families is common in all the study areas although less so where fish is less readily available and/or more expensive (remote inland C Kalimantan and inland N Sulawesi). Those with cash incomes buy fish at, what they say, are reasonable prices (about IDR 2- 2,500 per family member per day). With the exception of C Kalimantan where hunting for game meat is common, very little meat is eaten except for special occasions and then this is primarily chicken.

We ate chicken only on the last day to celebrate the family's eldest daughter's birthday.

SE Maluku

People eat a lot of rice at a single meal. Many families consumed 2-3 kg per day. Rice was piled on to plates in quantities which were much more than we could manage. Side dishes of sambal, vegetables and fish were small and often only a spoonful each.

One family of five in C Kalimantan ate 80kg rice per month

In some villages in SE Maluku they told us they eat pork at Christmas only and in N Sulawesi they told us they not only eat pork but dog too as '*these are the most delicious meats'*. A recent Government asset transfer programme providing duck in C Kalimantan was ridiculed because all the ducks given were female and *'we don't like to eat duck'*. Others in N Sulawesi said that duck meat was '*too tough'*. Only a few eat either chicken or duck eggs partly because they are considered expensive and partly because it is less easy to share an egg or *'make it last the day'* (N Sulawesi).

My 'father' showed me how to catch fish in the pond behind our house. We put a little left over rice in the net and let it sink. After one hour we got more than ten fish and 'mother' fried them for lunch and dinner. There's always plenty.

C Kalimantan

"Doctor said embal (bitter cassava) is not good for our body but this is our ancestral food- so we cannot not eat it– it would be a sin for us"

FHH mother, SE Maluku.

White rice is the main and preferred staple across all locations and has replaced the traditional staples of cassava and root vegetables, except in the poorest location in SE Maluku where most people cannot afford rice. People explained that rice used to be an occasional food perhaps only for special days (*'we used to buy rice only on Sundays but now we eat it everyday'* (N Sulawesi) but now it is the norm.

The idea that eating white rice has some status value is prevalent with people suggesting it is a feature of 'modernity'; *'We were introduced to modern life in the '50s when we got rice* (from the Mission)' (C Kalimantan) and, by implication, eating cassava and roots is not 'modern'. Most linked the change to the Soeharto New Order drive towards self -sufficiency in rice from 1967 onwards. This included the introduction of new varieties and new cultivation techniques and promoted rice consumption, changing peoples' tastes and habits for good. People often shared with us that '*we try to have it* (rice) *at every meal*'.

Some told us they grow a proportion of their rice for their own consumption, only a few grow enough to last for most of the year and the majority only grow enough to meet about a third of their total needs. Many therefore have to purchase large quantities of rice to meet their needs, usually buying in bulk and then home–store it (sealed) for a month or so.

The exception is one location in the SE Maluku islands where they continue their tradition to eat a particular kind of bitter cassava. In this village, the families have very little cash and cannot afford rice even though they regard it as *'better'* than their traditional cassava biscuits (known as *embal*). One host family here apologized daily that they were unable to provide rice to the researcher during his stay, illustrating the perceived status associated with eating rice. Here RASKIN rice provision is irregular and, as well as lack of cash, distance from markets constrains routine rice purchase. They grow some mountain rice (*beras merah* or *beras gunung*) but *'children won't eat it as they say they don't like it'*.

"an egg costs IDR 2500 for one but you can buy several fish for IDR 5000"

Mother, N Sulawesi

My family in SE Maluku told me that they buy a sack (about 20kg) of rice once per month. As a team we noted this is much less than other families in other study locations who would typically use three to five times this.

Those living in the islands of SE Maluku have the least varied diets. Vegetable growing is said to be difficult because the soil is *'rocky and dry'*. But others said that the young don't want to farm, '*they are too lazy to go and don't know how to farm'*. A few families eat cassava leaves and young papaya but others eat no leafy vegetables at all (see right). Neither location in SE Maluku has many kiosks and there are no travelling vegetable hawkers as found elsewhere.

People living here have the least disposable income and rely only on cash from fishing, seaweed cultivation and some timber cutting. The nearest markets are several hours boat or *angkot* journeys away, and occasionally people go there to sell their fish, but do not buy vegetables to bring back home. Due to the lack of work opportunities some are choosing to migrate to Ambon and Papua to work mostly in construction and mining.

Rarely eat leafy or non-root vegetables

Three generations of women live together in the small wood house. Each day they ate *embal* (a kind of biscuit made from bitter cassava which they are able to grow all year) with fish twice per day, which is given to them or bought. This was only varied on receipt of the rice assistance programme (a local one, not RASKIN) and was supplemented by sweet tea and home baked bread. Only on my last night did we eat any vegetables, a leafy spinach. They told me the diet remains the same all year round and only costs them the fee for grinding the cassava. Occasionally when they have some cash from selling baked goods in the neighbouring village, they will buy sugar, tea, instant noodles, oil and seasonings.

SE Maluku

Each day 'my family' (mum, dad and two preschool age boys) ate fish, rice and *embal*, supplemented by squid provided by a neighbour on my last night. My 'father' always has rice in the house because he is the village secretary. Each dinner and breakfast we take hot sweet tea too. We eat no vegetables except on the first day when we take a watery pumpkin soup.

SE Maluku

By contrast in C Kalimantan, families eat vegetables at least once per day. This includes cassava leaves, long beans, aubergine, peanut, pumpkin, Chinese cabbage and varieties of spinach which they grow in their back gardens or down by the river edge in small plots. During the dry season they buy from vegetable hawkers (including from children from neighbouring villages), kiosks and the market when their own gardens have run out. This accompanies rice and fish (fresh or preserved), hunted meat, tofu or egg. Those with cash also have packaged food such as tinned sardines and instant noodles especially when they run out of fresh food. Quite often researchers found that the families they lived with resorted to instant noodles and tinned fish on their last day staying with them.

Vegetable eating in N Sulawesi is somewhere between the extremes of SE Maluku and C Kalimantan, with sambals (often made mostly from tomatoes) being essential and beans, cassava leaves and spinach added regularly although not necessarily daily. Many families have small kitchen gardens where they grow onions, tomatoes, papaya and chillies.

The decision to include vegetables in meals seems largely to be related to whether people can gather them free (from nearby forests and gardens) or whether they are easily available from nearby markets and/or vegetable hawkers. Some children shared that they '*hated vegetables'* and in one family this view was encouraged because *'vegetables are expensive'* (C Kalimantan). But sometimes children said things like *'I like carrots'* or *'papaya leaves are healthy'* but when we chatted further we found these were often what *'teacher told us'* or *'teacher said eating papaya can prevent malaria'.*

> *"We don't often eat much vegetables and yet we are very healthy so it must be the fish which is nutritious and healthy especially snake head fish"*
>
> HHH C Kalimantan

My family grew vegetables and had plenty but the farm was some distance from their house (about a 2 ½ hour walk) , so, they said, it was too much effort to collect regularly.

C Kalimantan

Diverse diets in C Kalimantan

On our first morning , our 'father ' surprised us with some river frogs which we ate fried for breakfast and then made into soup in the evening . We had a bigger surprise on the second morning as 'father' had been to the forest and brought back a small deer, civet cat and a forest rat. These were cooked and served for breakfast with garlic, onion and aubergine. Married people are not supposed to eat deer according to Dayak tradition and so the married ones in the family ate only vegetables with rice or duck eggs bought from a neighbour. On the fourth day we were concerned when yet more civet cat and deer was caught that this was special for us but we were reassured that this was normal, *' we go hunting nearly every day'.*

C Kalimantan

Most people eat cassava leaves, spinach and other vegetables they grow themselves every day. In the dry season they buy vegetables at the local market , perhaps spending 5-10,000 rupiah per day . I am told cassava leaf is a Dayak favourite and *'everyone in the village eats it'* .

C Kalimantan

When money is short, people shared they might only eat rice and salt (N Sulawesi) or rice and sambal (C Kalimantan) but often eating very simply was, they said, because it was easier and less effort or because *'it is sufficient to just feel full'.*

People in all study locations use chilli and flavour enhancers such as monosodium glutamate (MSG). The use of chillies in N Sulawesi was very significant with some people saying *'it is better not to have fish than not to have chilli'* and spent around IDR 5-7000 per day on chillies. Similarly, one of our HHH mothers in C Kalimantan said, *'eating meals would not be enjoyable without sambal, that is why we eat so much chilli despite the high prices'*. Chillies were also said to be good '*because they make you sweat and you don't need to take so much exercise'* (HHH, N Sulawesi).

MSG and salt are often bought in pre-mixed flavouring packets (such as Royco and Masako brands) for around IDR 3500 per sachet and were used in all our study locations and added to most cooked meals.

One SE Maluku family shared that if they only have enough money for salt or MSG, they will always choose the latter because it makes the food tastier. In one family in N Sulawesi, the grandma explained that *'garam dan Vetsin hidup berdampingan'* (meaning' salt and MSG live together') and expressed what many others think that *' food is not delicious without these'* but although also conceding that they know it is not good for you.

People rarely ate fruits while we were with them in any location. Although many fruits were not in season, they were still available, including locally grown fruits in coastal N Sulawesi and in coastal SE Maluku. Fruits were most readily available in N Sulawesi both grown locally and for sale in the market. Even though some children here know about the five *'perfect foods: rice, meat, milk and vegetables and fruit'* from school and others[8] claimed their favourite foods were *'fruit, cassava and fish'* they said they rarely ate fruit. Here we also heard many who thought packaged fruit drinks (like Ale-Ale)[9] are alternatives to eating fruits. They said advertisements on TV showed that they contain real fruit.

A wide range of fruits were also available in the markets in C Kalimantan, including grapes, durian and apples but here too they were rarely eaten. One mother said firmly that her children '*do not like fruits*' but the cost may have been the reason for this rather than anything else as the children said they do like fruits.

In the SE Maluku islands there was much less fruit available (mainly just papaya) and no market or house to house fruit sellers. Some fruits were sold in the villages although no one mentioned regularly eating them. In some villages fruit was described as a '*delicious food*' but people did not feel that it was very important.

I played a game with schoolchildren so they could pick their favourite foods from pictures I had with me. They picked fruits such as pineapple, guava and vegetables, rice and fish (mimicking what they have learned about the five important foods at school). When I played a similar game with children away from the school and when they were not in uniform, they chose many more items including packaged orange jelly drinks, chocolate, instant noodles. They said they liked to snack directly from the packet, candy, pop ice, crackers and, after more thought, peanuts.

C Kalimantan

[8]During the time the researcher was there he never observed them eating their 'favourite food' fruits!
[9]A brand of fruit drink

The RCA team has noticed that since 2009 when the first RCA studies were carried out in Indonesia, there has been a noticeable increase in the use of instant noodles, sometimes as a substitute for rice and sometimes as a supplement to rice. Significantly, the most conspicuous consumption of instant noodles is in C Kalimantan where there is the most cash earning and least in SE Maluku where there is both little surplus cash and very few kiosks. For one family of nine children in C Kalimantan the peer pressure to eat snacks and instant noodles has led the school-aged children to earn their own money from portering in the local market (earning about IDR 4000/day). In another family in C Kalimantan the children go to school each morning without breakfast, and buy snacks for lunch.

Instant noodles fried with spinach, long beans, cassava or an egg is the favourite for all the school children in the area

Remote inland C Kalimantan

"Some think eating instant noodles is healthy"

Mother SE Maluku

One teenage daughter said she likes to buy instant noodles at school. And another not atypical C Kalimantan family shared that their 11 year old daughter does not eat vegetables or meat, preferring noodles and tinned sardines. In the N Sulawesi study area children also snack often and, like some in C Kalimantan will earn their own money, for example by selling coconuts, to be able to buy their own snacks. The children in SE Maluku rarely get pocket money and rarely snack, but they are the exception. Elsewhere children get between IDR 2-15,000 to buy whatever they want at the local kiosks. They tell us they like the opportunity to buy something for themselves. Given the choice, children said they like packaged snacks but the preferences were tempered by what was the norm for the particular area. For example, in one location in N Sulawesi they preferred local baked 'donuts' and traditional cakes' *because they make you feel full'*, whereas in C Kalimantan, the favourite was tapioca balls served with chilli sauce.

Pooling observations across the study, we notice clear differences between generations with children especially liking pre-packed foods. Children buy snacks, particularly at kiosks near the school, to be like their peers.

Those families with more disposable income were more likely to give pocket money to their children for snacks and cave in to pester power when demands are made for noodles, candies or snack foods. By contrast in some villages in SE Maluku where there is less disposable income, children never leave home without breakfast and there is less expectation to get pocket money to buy snacks and few, if any, snack vendors.

Snack buying local norms

In my village there are two kiosks selling homemade snacks for children; bread, cakes, fried banana and green beans and sugar. Children here prefer these and rarely buy packaged snacks. The snacks are made fresh twice a day and as I watched, the cook used no MSG in them (although she used large amounts in the porridge she also cooked!)

N Sulawesi

I asked children whether they preferred home cooked snacks from the kiosk or packaged snacks. They liked the fruit drinks best ' *because they are healthy, orange colour so must be full of vitamins and makes you healthy , strong and cheerful'.* One young girl only eats chocolate bars all day and her mother laughs that she can afford this so there is no problem.

N Sulawesi

I went with my 'mother to the weekly PKK meeting. It was a one hour meeting and I watched another mum giving her children candies throughout, at least ten to keep them quiet.

At the Church service mothers constantly gave *gula gula* (candies) throughout the three hour service.

Because the green antacid tablets are sweet, my neighbour mother split her pill in half and gave half to her two year old *'as a sweetie'* she said.

Coastal N Sulawesi

All the children in the N Sulawesi locations get pocket money, at least IDR 5000 per day and in the location nearer to town they get 10-15,000 per day. There is a Ramadan savings scheme at both the primary and junior high school but this means the children are asking for even more money so they can also contribute to the scheme. At Eid they spend the 'saved' money on clothes and snacks. The teacher claims it teaches then to save but actually they are not saving just asking their parents for more pocket money. The Sunday school has a similar scheme where children save for the Christmas party. They spend all the savings on cola and snacks. One boy told us that at Christmas, *'while the adults are getting drunk we have a whole bottle of cola'*

N Sulawesi

What people drink

People drink a lot of coffee or tea and always with large amounts of sugar. In the villages we stayed in in SE Maluku, tea rather than coffee is taken in most households at breakfast time, sometimes on its own and sometimes with *embal* biscuits, or bread. Coffee rather than tea is preferred in the two other provinces and is often taken in the morning without eating breakfast. Men usually combine this with smoking cigarettes. Coffee (or tea) plus a cigarette in the morning '*gives you enough energy to climb a coconut tree*' (HH father, coastal N Sulawesi) and another father said that he often prefers to have coffee and cigarettes rather than rice (inland N Sulawesi).

Each day in one of the HH in C Kalimantan the adults took tea or coffee in the morning but the children went to school without eating anything.

In another family the father, a fisherman, told us that he only took coffee in the morning '*because I do not want to be fat and if I eat breakfast I would not be able to work so hard*'. A HH mother here, who only cooks once per day primarily to fit in with her gold miner husband's schedule, said she, like others, drinks coffee throughout the day to suppress hunger, while another mother liked to add sugar to water if she didn't feel like coffee or tea.

Everybody adds at least three spoons of sugar to their coffee and if 'mother' doesn't have coffee she simply takes the three spoons of sugar in water'

People in our 'homes' often commented to us ' You drink a lot of water' as it was not the norm for them.

C Kalimantan

In my family they buy 0.5 Kg of sugar every 2 days which mother dissolves in water for her 2 babies (17 months and 3 months)

SE Maluku

In several locations children often drink coffee or mix it with their rice or simple syrup water made with sugar. In inland N Sulawesi the two young daughters aged 6 and 9 years in one HHH family drink coffee every morning with ginger and sugar as they explained *'it gives us energy for school so we don't feel sleepy'* (they both go to bed after 10pm each night) and the elder added *'most of my friends drink coffee'*. Researchers in the other villages in N Sulawesi heard similarly, for example, *'it makes body warm and is good for reducing masuk angin (*a general term for feeling sick*) '*and one young boy liked to mix coffee in with rice. In one HHH in SE Maluku unusually coffee is preferred to tea and the one year old drinks it at breakfast from his parents cups but also has coffee provided to him in his baby bottle. In other places too small toddlers drink highly sweetened coffee and tea e.g. in very remote coastal SE Maluku (coffee), coastal SE Maluku (sweetened water, coffee, and tea), inland C Kalimantan (tea), inland N Sulawesi (tea).

Children in inland N Sulawesi enjoy packaged sweet drinks including boxed coconut water, which they said they preferred rather than an actual coconut because it is *'easier.'* In coastal N Sulawesi, a favourite drink for children and some mothers was *es mambu* (similar to an ice slushy or popsicle) with one mother telling the researcher that, *'if you are thirsty drink the es not water*' as she claimed this sweet cold drink was a better thirst quencher than water. Another popular 'drink' in this sub-village was shredded ice served with palm sugar and condensed milk. In inland C Kalimantan meanwhile, one kiosk owner said that she can sell 200 'Okky' brand jelly drinks every day.

Only one woman (very remote coastal SE Maluku) we spoke with emphasised the importance of drinking water. She took a large bottle of water with her every day to her garden outside of the village, saying that it was *'to make my body strong'*. Others carry water to the field but other than this people do not drink much water except after meals.

Alcohol, often locally-made, was also enjoyed in many of the locations. In C Kalimantan, the drinking of alcohol was particularly associated with going into the forest for timber or hunting. In coastal N Sulawesi, fishermen said they liked to drink alcohol after returning from the sea in the morning to *'help warm them up'.*

In remote inland C Kalimantan, both men and women like to drink regularly, and in coastal N Sulawesi some women drink to celebrate events and holidays like Christmas. Muslim men also drank alcohol here. People in SE Maluku and N Sulawesi shared that alcohol often leads to fights. One father in inland N Sulawesi worried that young boys, including his own son, go to the sub-district capital at night for drinking and might get into fights. This boy indeed went out every night while the researcher was staying with the family, taking IDR 20- 30,000 from his parents with him. In coastal SE Maluku, a one-litre bottle of the local *sopi* alcohol sold for IDR 20-25,000, and two of our HHH here made *sopi* as a way of earning additional cash.

What do people think is 'good' or 'healthy food'?

People tell us that good food is what you like and what helps you do daily activities well. Fish and rice, the most common diet, is described as meeting these requirements. *'If you like it , there is no reason not to eat it'* (N Sulawesi) was a common sentiment.*' Good food is tasty food'* (SE Maluku) and good food is '*tasty, enjoyable and easy to digest'* (C Kalimantan). Some felt they could not really explain what was healthy food and suggested we asked medics. In SE Maluku they felt it was pointless to talk about what might be healthier food '*as this is what we have.'*

People told us clearly that fish, the traditional food of previous generations, is *'good for you'*. As a '*natural*' food people said it was healthy. In N Sulawesi, we were told that fish is *'good to eat every day because it has vitamins which are good for the body'* and others warned not to over cook it or else the '*vitamins will go'.* The perception of fish being a healthy food choice is further endorsed by what people had heard from doctors and nurses (especially in N Sulawesi and C Kalimantan). They also say they '*like it'* and it is a favourite food. The only times we heard that eating fish could be problematic was in C Kalimantan where some said it was not good to eat in pregnancy because of *'worms'* and a mother of nine chided her children about eating too much fish saying that, *'it gives you worms'* but this may have been to stop them eating too much costly fish rather than a genuine concern.

"We are very healthy because we eat fish every day. We know from school that fish has protein and so eating healthily is easy for us. The more fish we eat the healthier we will be."

N Sulawesi

There are two boys in my family, aged 13 and 10 years. The younger one is bigger than the older one. Mama said this is because the younger *"kuat makan sembarang"* (likes to eat everything). When I asked the chubby younger boy, he said he likes to eat – literally everything i.e. fish, noodle, egg, vegetable, chilli only or even rice mixed with coffee When I was there, he ate 5 to 7 times a day, as long as there was rice available. If not, he would cook instant noodle for himself. His older thin brother eats only if there is fish. "I haven't eaten today because there is no fish" as he simply said one day. He often was 'looking for fish' in his aunties' kitchens when he felt hungry, which was about two times a day.

N Sulawesi

My 'grandma' was 90. She attributes her old age to eating well and never eating tinned fish, instant noodles or MSG.

C Kalimantan

"Everything from Java is unhealthy , but we want to try it"

SE Maluku

In C Kalimantan a HHH family talked about the bad effects of MSG, '*it will make your body feel weak- my colleagues at school have experienced this'* but nevertheless used an entire packet when preparing bakwan jagung (fried corn cakes) dough.

The idea that fish is natural and good for you is extended by the idea, which we heard often, that '*local food is healthy' (mother, very remote coastal SE Maluku)* and is *'better than food from outside'.* A mother in C Kalimantan echoed others by telling us that ' *I would rather buy food from neighbours than the market because then it is fresh'.*

It was actually easier to talk with people about what was unhealthy food rather than what is healthy. People explained the problem with '*food from outside'* which is often said to be unhealthy, in two main ways: i. packaged food contains additives and people have heard they are not good for you and ii. people across many study locations have heard that food grown using chemical pesticides is not good for you. As a result older people shared with us that they feel that they were healthier than the younger generation. '*Before we were fine and we ate what Nature provided. Even I get ill these days with all these modern foods. It can't be because of the water because we have always drunk the same water'*, shared an elderly man in inland C Kalimantan.

An elderly woman in N Sulawesi said that *'Grandpa's rice is better because he is not using pesticides'* and another man in SE Maluku said*' People used to live to 100 but now everyone dies at 70 because people eat instant noodles and lots of preservatives'* Both packaged food and food cooked outside are said by several to be *'too oily'*. At the same time, MSG in particular was commonly noted by people as being unhealthy. One HHH in Central Kalimantan said that *'too much MSG will make you paralyzed'* but nevertheless they continued to use large amounts of salt and MSG with all meals when the researcher was staying with them. Others referred to the chemicals added to food to preserve it or used in growing it as something they felt was unhealthy. For example, a mother in SE Maluku shared that '*food we grow (soil food) is good and fresh but fish bought in the city has died many times'.*

A young mother of two in N Sulawesi was very quick to point out that home cooked food was healthy and packaged snacks were unhealthy. Some suggested that instant noodles were not good because *'others say so'.*

What is being clean and hygienic?

Cleanliness is important for many. Where water is available people in all locations bathe at least once per day, usually before taking dinner in the evening. People also wash their hands (or take a bath) before eating as well as after eating. These actions are all primarily done to get dirt or smells off the body. People say clean is the opposite of dirty, meaning something you can see such as soot, mud dust.

The idea of keeping clean is illustrated by a number of examples;

- Washed dishes were covered with a cloth to keep the dust off, others covered to keep the smoke off (SE Maluku)
- Children were told off for not wearing sandals inside the kitchen – the kitchen floor being dirty (SE Maluku)
- If one has just bathed and clothes have just been changed then people worry about getting these dirty (N Sulawesi)
- Concern about the newly swept floor getting dirty (N Sulawesi)
- Floor in the house is said to be dirty (it is just dusty) and therefore sandals must be worn (N Sulawesi)
- There is a community schedule to sweep the paths of leaves in front of the houses and this is followed unfailingly. The village once won the 'cleanest village' award but garbage is thrown into the river which runs to the sea (SE Maluku)
- Daily sweeping of the path in front of the houses (and following village orders to keep the gardens in front tidy) but throwing the garbage out back (N Sulawesi)

My 'mother' takes a bath at least twice per day. If there is little water she will bath in the sea instead. If there is plenty of water she will bath more often. She says it because she feels sweaty and also likes to change her clothes

SE Maluku

Dishes and utensils were washed conscientiously everywhere using predominately a standard two bucket system with soapy water in one and rinsing water in the other. Some even used three consecutive buckets. The exception was one location in C Kalimantan, where there were a few cases where soap was not always used, a single bucket was used for washing and rinsing, or washing up water was kept for as much as two days without changing.

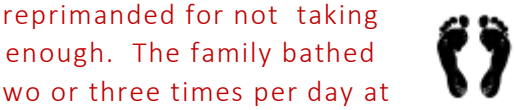
The idea that something which appears clean is good extends to how people view drinking water. The worst situation is in C Kalimantan where most families use the river water. This river is filthy with faeces from the floating toilets, garbage and is polluted from the gold mining, coal mining, and plantations. Most take water directly from the river and add *'tawas'* (potassium alum) which they buy locally. This 'cleans' the water as far as most are concerned but alum is primarily a flocculant to clear dirt[10]. Some additionally boil the water making what they refer to as *'air mati'* (literally, dead water), while '*air hidup'* (literally, live water (unboiled)) is also stored in the home and we observed members of one family, including the baby, drinking directly from both sources and the mother using the *air hidup* to cook rice.

Only in rural C Kalimantan were some people collecting water from a tributary further upstream where, once again, the colour of the water acts as confirmation that this is '*really clean and healthy water'.*

In coastal SE Maluku even though some regard their particular water source (springs and pools) as spiritual or blessed and point out that the water is crystal clear, they still boil it before drinking and some families also filter it through cloth after boiling. Those taking from piped water sources in very remote coastal SE Maluku also boil the water routinely.

We were constantly reminded to take a bath perhaps even reprimanded for not taking enough. The family bathed two or three times per day at the river.

C Kalimantan

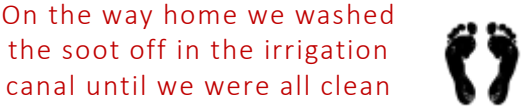


My mother was constantly sweeping the leaves in front of the house . She said she was embarrassed in case people thought hers was a dirty house

SE Maluku

We spent the day burning rocks and got really sooty. On the way home we washed the soot off in the irrigation canal until we were all clean as some men also peed in the canal.

N Sulawesi



[10]Although it has been shown to have some effect on some pathogens

While most people in the N Sulawesi study sites had access to wells, the visual test is also sometimes applied for assessing the quality of water from other sources. For example, one HHH mother explained that she could see that the water piped from the mountain '*looks clean enough'* and so feels no need to buy bottled water. Others explained that the water from the mountains comes through the rocks but the river looks dirty and people bathe there (we too saw it was full of trash and murky) and often say, '*never use the river for drinking because somebody has already used it'.* But one village in coastal N Sulawesi was the only location in the study where anyone mentioned *' kuman'* (germs) and said that this was why they needed to boil the well water - *'everyone does this'.* The same village people carefully cleaned jerry cans before filling with water and scolded our researcher for not observing the norms of cleanliness and conservation around their drinking water sources.

Rather than a hygiene connection, being clean is more synonymous with looking and smelling good. It is important for babies to smell nice, so for example like many others we observed, one mother in N Sulawesi washes her baby three to four times a day and lavishes Johnsons products on her so that she is always smelling nice. One HHH in SE Maluku used baby oil and talc fastidiously on their 8 month baby son. The teenagers (boys and girls) in one village in N Sulawesi used shampoos, deodorants, perfume and body lotions in large quantity in order to *'attract'* the opposite sex by smelling good. Other people use 'Sunlight' dish washing liquid on the hands after eating to be *'fresh'* and *'to take away the smell of the fish'*.

I was repeatedly told off for not wearing sandals when walking outside. I pointed out that others didn't either but I was scolded , *'it's dirty'* . My 'mother' even used sandals inside because she said inside was dirty too. The only floor which was not considered dirty was the tiled one but the visiting relatives from Manado still kept their shoes on here – even this was *'dirty'.*

N Sulawesi

Local views of clean water sources

In C Kalimantan people in the village away from the big river are proud of their water source some 3km up in the hills, *'which we never boil and never had to'*. They blame diarrhoea outbreaks on the 'big river' and when their habitual source dries up in the dry season they take boats to another tributary further up stream which is a 'clean river' and collect water in buckets there.

C Kalimantan

In my village in S.E Maluku the villagers believe their water source in the forest is magical and projects people from evil. Newcomers have to throw a rock into the well. They say if it 'boils' it is a bad omen. They say this water is 'mirror' clean and therefore healthy and safe. Nevertheless the source has lots of garbage scattered around.

SE Maluku

What people do about poo?

Men and children consistently told us they preferred to poo in the open . This would be the beach or the sea or rivers and, less often, tall grass or bush. They tell us it is more convenient (*'you don't have to wait to use'* (SE Maluku)), they are used to it and, where there is flowing water, it is easier to wash at the same time. *'I like the river because I can wash my hands, legs, face at the same time'* (HHH,C Kalimantan)

In the C Kalimantan study locations most families had access to 'floating toilets'. These are basic wooden structures built out into the river with a hole in the floor and a means to wash with river water using a small scoop bucket. Faeces and urine pass directly into the river. '*This is just normal'* explained one HHH mother who lived in an area near the river where people did not have their own floating toilets but shared use with four other families. In other areas they are owned by individual/families and sometimes they are available for general use. In one village we were told that people prefer these floating toilets to the public toilet which has been built seven years ago in front of the village office near the market. The school toilets are also not used as '*we prefer the river and are used to this'.* In another village the children said they only use the school toilets when there is water available which is only occasionally. Here children pee and poo under their stilted houses and in the long grass. At night, they lift a floor board and pee or poo through the gap.

Another family showed us the same procedure which was specially good for '*the baby, the child with disabilities and old people'.* The faeces stay beneath the house where chickens and dogs scavenge. Ceramic toilets were only installed in a few houses, often those of civil servants and the better off.

In some of our C Kalimantan villages households had head torches which helped them to use the floating toilets at night although children asked to be accompanied. In others, children do not go to the floating toilets at night because they are scared and preferred to relieve themselves in the yard of their house or through the floor at the back of the house.

In SE Maluku the villages were all located near the sea and the preference was to use the sea or beach. In one village they have designated areas of the beach for women and another for men. Women, in particular, preferred to go very early in the morning, and some said at the beach they *'feel exposed'* and preferred *'the bush*.' We observed that the beach area was always relatively clean as the tide washed it all away. Like the C Kalimantan villages, some people explained that at night time the elderly and small children simply pee through the bamboo slatted floor. In other villages a few had their own pit toilets but very few had ceramic toilets mostly because it is considered costly. The sub-village head is one of these villages with a ceramic toilet which they flush with sea water.

My ‘grandma’ was the first person to have her own toilet some twelve years ago. She had visited Papua and went to a shopping mall and so liked the toilet she wanted one herself. She let others use it to in the beginning. Many don’t have a toilet in this village in SE Maluku.

I was shown the best place to have a poo was under the boat jetty but there were other ‘good places’ among the rocks and bush on the beach.

SE Maluku

The kids took me down to the beach . On the way you can smell pee everywhere. At the beach they play a game ‘mining for poo’ where they tease those who they think may be standing on poo. This was done with much hilarity.

SE Maluku

My 15 year old 'sister' said she was ashamed that her family did not have their own toilet. She feels too old to ask her parents to come with her although she is often scared to go alone. She tries to go to a friends house to use their toilet. She is constantly asking her parents for their own toilet *'when they have some money… I am too old to just go anywhere'*

A neighbour has an elderly uncle who can no longer use the floating toilets and they have made an arrangement with another family for him to use their ceramic toilet. They 'pay' for this with gifts of vegetables

C Kalimantan

The Head of the sub-village claims families have toilets but this is not true. Just a few have pit latrines but most use the beach. I got up early one morning and many women and children were going to the beach, some waded far into the sea to poo. At night I was awak-ened by people peeing by the house.

SE Maluku

There was baby poo at the well where people were washing their dishes

N Sulawesi

In coastal N Sulawesi, among those living nearer the town most had their own goose neck ceramic toilets with their own electric water pump, water tanks and septic tanks though some used well water for flushing the toilet. But further away although most had squat toilets some still used the beach for poo. Some of this was preference but some was also because water was difficult to obtain at times, such as in one sub-village where they had solar powered water tanks. Even those with squat toilets and their own well shared that they often used the beach because the toilet is too hot and filled with mosquitos and,*' it is windy at the beach and nicer'.* In one of the inland villages, only 5 out of 50 houses had their own squat toilets which they flushed with well water. As discussed below all year use is problematic because the wells are low in the dry season so, especially at this time, people used the river for defaecation. Some young children simply pooed in their own family gardens.

In all the locations people seemed to be unconcerned about the disposal of baby poo. For example, in C Kalimantan the 18 month toddler's poo was scooped up wherever it was done and thrown behind the house. In N Sulawesi the poo from the 10 month baby was thrown in the hedge or just left in the yard. Soiled pants were washed along with all the other clothes and soiled disposable diapers were thrown over the back fence. In another village the one year old boy poos whenever and wherever he wants in the yard. The father said he would clear it up but never did just letting it dry in the sun. The beaches in N Sulawesi were littered with soiled disposable diapers.

Physical access/means This section describes the physical access to sanitary toilet facilities, drinking water and water for washing. Even when facilities are available there are major problems with poor construction, maintenance and seasonal availability of water. It also points out that provision of facilities does not automatically lead to use of these facilities.

Access to toilets

Where people have constructed their own toilets they are generally simple single pit latrines with stone/cement linings. These may have ceramic or more basic toilet pans and are flushed using water scooped from various sorts of storage containers. Some of these toilets are tiled but most have basic mud floors and bamboo or wood walls. In some areas, people have a small fenced-in area with small rocks which can be used for peeing, washing and bathing Only in one area in N Sulawesi are a few toilets water-sealed.

In C Kalimantan the toilets are extremely primitive and could not be described as sanitary as they are basically floating wood and bamboo structures on the river with a small hole through which people defeacate. Table 1 provides an overview of the estimates of households with their own toilets in the different study locations as gauged by conversations with villagers and supported by our own observations. Table 2 describes the toilet arrangements for each of our twenty two HHH.

1. Toilet Access

Location	Estimate of percentage with own toilets	What do others do?
Inland N Sulawesi	~ 65%	Even those with their own toilets often preferred the river
Coastal N Sulawesi	85%	Everyone else uses the sea
Coastal SE Maluku	~ 50%	Rest use the beach or bushes
Remote inland C Kalimantan	Very few	Majority have access to floating toilets
Inland C Kalimantan	100% in one sub village (mixed floating and inside toilets)	All other villages have own or shared floating toilets
Very remote coastal SE Maluku	< 50%	Water shortages mean many more are actually using the beach rather than their private toilets

2. Toilet Preference

Location	No HHH	No. HHH with sanitary toilet	No. HHH actually using their toilet for poo	No. HHH with access to working public toilet
Inland N Sulawesi	3	2	0 (river)*	0
Coastal N Sulawesi	3	3	2 (beach)	0
Coastal SE Maluku	4	2	2 (beach/bushes)	1 (not using)
Remote inland C Kalimantan	4	0	0 (river)	3 (2 use sometimes)
Inland C Kalimantan	4	0	0 (river)	2 (but not using)
Very remote coastal SE Maluku	4	3	0 (beach)*	2 (not using)
Total	**22**	**10**	**4**	**8**

*during rainy season more likely to use toilet

3. Access to Public Toilet

Location	Public toilets	Constraints
Inland N Sulawesi	No public toilets	-
Coastal N Sulawesi	No public toilets	-
Coastal SE Maluku	2 cubicle toilet near houses	Have to fetch own water from well – takes too long
	Plans for new toilet stalling	Rocky ground, people unwilling to pay IDR5000 per month maintenance
	3 cubicle toilet near beach, close to pier	Broken pipes , not used for a long time
Remote inland C Kalimantan	2 cubicle toilet block	Pipes go directly into river. One cubicle broken and used as storage
	7 cubicle block near village office with tank and septic tank	Basically all used by village office officials and their families. Children often barred from using
Inland C Kalimantan	Toilet by village office near market	Nobody uses
Very remote coastal SE Maluku	3 cubicle old toilet block	Too far from water source
	New 3 cubicle block with solar light (built '14)	Rarely used. Light not properly maintained and only gives 4 hours light. Low water pressure means tank does not fill. Pump not working. Children say it is *'smelly'*. Teacher who gave the land has one toilet and shower for personal use. People say poorly constructed

The village nurse got support from the Health Department for the villagers to mould their own toilet pans. But there was a dispute over the cement that was purchased and stored at the Church. Although they made some pans people still needed to build the water tanks and construct walls which they neither have the time nor money to do. The nurse does not want to get involved in any more projects because of the failure of this one. TV crews had even come to film to showcase this local initiative *'but it wasn't a success'* she said.

SE Maluku

In my village in SE Maluku during the complementary frontline health providers study carried out the month before this one, an environmental health officer had organised a toilet programme whereby each household is required to make savings and contribute to the building of their toilets with help from the district office. This, is what they think is community led sanitation.

SE Maluku

Even where there is apparent access, observations indicated that many who have their own toilets actually prefer to defeacate outside, especially where there is flowing water. Their own toilets are sometimes reserved for guests, are places where the family pees but does not poo, or have water restrictions (shortages and non-functioning water pumps). The cost of building one's own toilet are considered high and for many this was not a priority. It might become a greater priority, some conceded, as they age recognising the increasing need for privacy and the problems of reduced mobility. Various costs were shared with us but nobody has a clear idea of the total investment. In SE Maluku we were told a toilet costs about IDR 700, 000

Many villages have public toilets but this was **never** noted as a preferred place to use in any of the study locations. Only those who lived near by actually use them and even then it was not necessarily consistently. People shared many reasons for this with the most obvious being water shortages. Table 3 shows that even had the public toilets been preferred their use would have been constrained because of they were poorly located, poorly maintained, without water or difficult to actually use.

Access to drinking water

Table 4 describes how our twenty two households access drinking water. The most problematic is in SE Maluku where seasonality issues make water scarce in the dry season. The worst source of water is in C Kalimantan where people collect their water from the highly polluted river.

4. Access to Drinking Water

Location	HHH	Source	Proximity (minutes)	Ease of accessing drinkable water	Seasonality Issues
Inland N Sulawesi	1	Well	Own well	Easy	Some
	2	Well	Own well	Easy	Some
	3	Well	Own well	Easy	No
Coastal N Sulawesi	1	Tank / Bottled	Less than 5	Relatively easy	Some
	2	Tank / Bottled	Less than 5	Relatively easy	No
	3	Bottled	Less than 5	Relatively easy	No
Coastal SE Maluku	1	Well	More than 10	Difficult	Yes
	2	Well	Less than 1	Easy	No
	3	Well	Less than 1	Easy	No
	4	Well	Less than 1	Easy	No
Remote inland C Kaliman-tan	1	River	Less than 5	Difficult	No
	2	River	Less than 5	Difficult	No
	3	River	Less than 5	Very Difficult	No
	4	River	Less than 5	Very difficult	Yes
Inland C Kaliman-tan	1	River	Less than 1	Difficult	No
	2	River	Less than 1	Difficult	No
	3	River	Less than 1	Difficult	No
	4	Bottled	Less than 5	Relatively easy	No
Very remote coastal SE Maluku	1	Piped	Less than 5	Relatively easy	Some
	2	Spring	More than 15	Very difficult	Major
	3	Spring	More than 15	Very difficult	Major
	4	Spring	More than 15	Difficult	Major

Easy Relatively Easy Difficult Very difficult

5. Water Treatment Before Drinking

Location	Source	Boiled*	At home filtering	Drink the same water as wash in
Inland N Sulawesi	Well	Yes	None	Some
Coastal N Sulawesi	Tank / Bottled	Yes	None	No
Coastal SE Maluku	Well	Yes	Some homemade cloth filters	No
Remote inland C Kaliman-tan**	River	No	None	yes
Inland C Kalimantan	River / Bottled (1 sub village)	Usually	Using *tawas*	yes
Very remote coastal SE Maluku	Spring	Yes	None	Some

In almost all locations, with remote inland C Kalimantan an exception, people believe that they need to boil water before drinking it. None of our families in remote inland C Kalimantan are boiling their drinking water, even though cases of diarrhoea would often be blamed on drinking water from *'the big river'*. People here said that water from the smaller branch rivers is better for drinking, but the extra effort and cost associated with collecting this water (typically requiring at least a 10 minute boat trip) means that most families were still using the main river water for drinking.

In two sub-villages of inland C Kalimantan, some families have started to buy their drinking water from a kiosk which processes the river water with *tawas* and *kaporit* (calcium hypochlorite).

One HHH noted that they feel this water is *'fresher'* than the piped water and better than getting water directly from the river, also noting that they are rarely getting diarrhoea compared to before. *'It's not smelly; this is what people in town do'* (HHH inland C Kalimantan). Coastal N Sulawesi was the only other location where people were using bottled water for drinking, with many people buying their drinking water from local kiosks producing filtered water or purchasing factory-produced gallon water.

Two sub-villages in coastal N Sulawesi also have access to large water tanks (distinct from the wells also present in each sub-village) which store water piped from underground springs. One host household uses this for all of their drinking water needs while another host household alternates between purchasing gallon water and using one of sub-village's water tanks.

*In all study locations, boiling water was removed from heat soon after beginning to boil
**Some sub-villages in remote inland C Kalimantan had piped water from a nearby dam, but it was not functional during our stay due to disputes

Access to water for washing

Most people tend to use the same water for bathing, washing clothes, and washing dishes. This is usually different from the water used for drinking. However, some make choices about which water source they use for different washing activities. For example one HHH (inland N Sulawesi) prefers to use their well water for washing clothes because they say river water is not as clean; In two sub-villages in coastal SE Maluku, most people used well water for washing dishes but bathed and washed clothing at a nearby spring because they felt this was easier and the women could chat while washing.

People use rivers for bathing, washing clothes, and washing dishes in both C Kalimantan locations as do many people in inland N Sulawesi. In inland C Kalimantan, one HHH has piped water available in their house but is still doing the majority of their washing and bathing at the river. Two other sub-villages here had large tanks where river water was stored, but in one of these areas the pump has not worked for 3 years and in the third village , out of the 8 tanks provided in 2010, 3 have *'exploded.'* In remote inland C Kalimantan, all HHH have pipes intending to bring water from an upriver dam, but in one sub-village the pipes were not functioning during the dry season and in the three other sub-villages disputes between villages leaders mean that the piped water is either very sporadic or has not been *'turned on'* in their area for years.

In very remote coastal SE Maluku, most families collect water directly from mountain springs for washing and bathing because they had no other options at the time - water pumps from these springs either did not function during the dry season or the pipes were partially broken. During the rainy season however, shared water taps did work in most sub-villages.

Two sub-villages in coastal SE Maluku have broken water pipes which had previously sourced spring water, but these areas still have good access to wells and there were multiple springs close to the sub-villages where most people bathed and washed clothing. The two other sub-villages did not have easy access to springs so are using their well water for washing and bathing, although one sub-village noted that the water was dirtier during the dry season.

In coastal N Sulawesi, one sub-village had personal wells with the other two sub-villages had shared wells along with water tanks sourcing from springs which could also be used for drinking (after boiling). In these two sub-villages people decide between using a well or water tank for bathing and washing based mostly on proximity and how long it takes to collect the water. For example, the water level in a well near one HHH was so low in the dry season that people often need to wait up to an hour for the well to *'fill back up.'*

After walking around my village, I was passing one of the village's water tanks (which sources from a spring) and decided to wash my hands. As I put my hands directly into the tank, I was harshly scolded by a grandmother who told me *' you can't do that because it needs to be clean for drinking.'* After this, I noticed that people would bring their own scoops to the tank to collect water or for bathing.

Coastal N Sulawesi

Access to food

As noted above, people on the whole felt they ate adequately by taking rice and fish most days. About half of our families were able to provide for most of their food consumption needs through their own efforts or from neighbours. The rest bought food, with rice costs making up the bulk of their food costs. The exception was the poorest location in SE Maluku where they did not grow rice (except for some small amount of mountain rice) and did not have dependable cash incomes. While we stayed with them they were mostly unable to buy rice. In both SE Maluku locations food was often shared with neighbours and relatives.

> *"Now we are more developed and have more cash so we can buy more food'*
>
> HHH, coastal N Sulawesi

Table below shows a stark difference between locations where the main livelihoods are cash-earning e.g. deep sea fishing, plantation, mining and construction work which provide disposable income to buy rice, vegetables and fish compared to those, especially in SE Maluku, where cash income is very limited and diet more restricted to own cultivated cassava and own caught/ bartered fish. Cassava in SE Maluku was referred to as *'soil food'* and, although their cultural heritage staple food, the reference carried some negative connotations and rice is seen as superior.

The poorest location in SE Maluku was also the location where there was the least amount of food available to buy.

Some kitchen garden demonstrations initiated by PKK were seen in this study in N Sulawesi and the RCA study on frontline health provision in SE Maluku. One seems to have potential but the other is neglected and nobody seems to know anything about it and the signboard is all that is left.

6. Main Food Sources

Location	Main Livelihood	Cash Surplus	Buy Food	Grow Food				Hunting	Fishing
				Rice	Cassava	Veg	Fruit		
Inland N Sulawesi	Mining, clove & copra plantation, govt. work schemes	Moderate	Rice, fish & veg	Little	Not done	Little	Little	Not done	Not done
Coastal N Sulawesi	Deep sea fishing, work in urban areas	Moderate	Rice & (veg)	Little	Not done	Not done	Little	Not done	Sea
Coastal SE Maluku	Sea fishing, seaweed farming, migration to Papua/ Ambon	Cash poor	Rice	Little	Done a lot	Little	Little	Not done	Sea
Remote inland C Kalimantan	Gold mining, rubber, timber	Lots	Rice & veg	Little	Some	Some	Little	Pig, deer, frog, rodents	River
Inland C Kalimantan	Swallow nest cultivation, Rubber, coal mining	Lots	Rice & veg	Some	Not done	Some	Not done	Not done	River
Very remote coastal SE Maluku	Migrant work to Papua, sea fishing	Cash poor	Little	Not done	Done a lot	Little	Not done	Wild pig	Sea

Not done · Some · Done a lot · Little · Lots · Moderate · Cash poor

7. Availability of Food to Buy

Location	Access to Town*	Kiosks	Local Market	House to House Vendors
Inland N Sulawesi	Good	Many	None	Many
Coastal N Sulawesi	Good	Many	1 sub-village	Limited
Coastal SE Maluku	Ok	Some	None	None
Remote inland C Kalimantan	Difficult	Many	2 sub-villages	None
Inland C Kalimantan	Ok	Many	1 sub-village	Some
Very remote coastal SE Maluku	Difficult	Very few	None	None

*Town refers to the district capital

8. Costs of Food (in IDR)

Location	Fish (per family meal)	Rice (per kg)	Vegetables (per family meal)	Eggs (each)	Noodles (pkt)	Seasonings (chilli/salt. MSG)/day
N Sulawesi	5-10,000	9-12,000	3-5000	2500	1,500-2000	5-7000
C Kalimantan	10,000-	12-15,000	5000	2000	3000	
SE Maluku	Don't buy but if have to about 5,000	10-12,000	Don't buy	Don't like	Don't buy	

Access to garbage disposal

Garbage is visible in all the locations. Many families seem to burn their own garbage periodically but those with access to the sea or river usually throw their trash there. Only in one SE Maluku location, which is also the poorest of our study locations, were people a little more cautious about dumping their trash in the sea. This seems to be as a result of a decades old community environment programme which the village leader still enforces.

I asked the kids on the beach what the container was for. Not one of them knew it was intended for waste. On another occasion boys said if it was meant for waste it was too small and it was better to throw the waste on the beach so the sea would take it away

N Sulawesi coastal

9. Garbage Disposal

Location	Visual assessment	Usual practice for disposing of garbage	Comments
Inland N Sulawesi		Burn in holes at homes. Leaves burned regularly (daily) plastics and 'wet garbage' burned weekly.	No river or sea to act as garbage disposal.
Coastal N Sulawesi		Throw on the beach , some who live nearby will burn what is left in front of their house if it gets a large amount . Also encourage goats and pigs to eat	Most people take no responsibility for the garbage disposal. Tide does not wash it all out to sea, but they claim this garbage is from another island.
Coastal SE Maluku		Weekly sweep up and burn. Those near beach throw on the beach or in the bush. Some gathered up to rocky end of beach and washed to sea.	Beach washed by tide, but one part not reached by sea and full of garbage.
Remote inland C Kalimantan		Throw in river (if nearby) or under stilted houses/in yard. Burn every 2-3 days	Some worry that when the level of the river rises their garbage will enter others houses.
Inland C Kalimantan		Throw in river when high so it flows away. Also use plastic instead of kerosene to ignite cooking fires.	Highly polluted river
Very remote coastal SE Maluku		Community schedule to sweep leaves from paths – these are burned. Men are expected to remove animal faeces. Throwing garbage on beach only condoned by village leader if sure it will be taken out to sea. But some garbage/ plastics appearing near the river now.	15 + years ago this area won the cleanest village in the province award and community practice *(gotong royong)* persists

Lots of garbage Garbage Relatively clean

10. Public Garbage Facilities

Location	What is provided	Comment
Inland N Sulawesi	None	Trash burned at home.
Coastal N Sulawesi	3 small cement containers on beach	Even in the main market there is no trash bin and all the market trash is thrown on the beach. University students had constructed public garbage bins in '14 at the beach but these are too small and never used. They had also suggested to build a pit but nobody was willing to give up their land for this.
Coastal SE Maluku	None	Condone use of the sea
Remote inland C Kalimantan	Village Office has large hole where garbage burned. No bins	Mostly use the river.
Inland C Kalimantan	None	All dumped in river.
Very remote coastal SE Maluku	None	A broken water storage tank is being used in one sub-village.

Children trawl through the trash dumped around the village looking for plastic which they 'sell' to *Mas Sampah* (Mr Garbage) who comes to the village each week. I kg of plastic earns a bracelet and 2 kg earns a puppet.

N Sulawesi

Development programmes aimed at increasing access

Raskin, the long-running subsidised Government rice provision programme, was available in all the study locations but, as previous RCA studies in Indonesia have shown, the regularity of distribution may be unreliable, quality is variable and local sharing mechanisms reduce the amounts available for the most needy families. In inland N Sulawesi, the sub-village near the town no longer gets its share of Raskin since it was administratively split from neighbouring villages whereas previously about a quarter of households were receiving it. People told us that one of their hopes would be for this provision to be restored. In the coastal N Sulawesi location people said they got 10 kg of Raskin every quarter but *'this only lasts one week for a family'* . People explained that it tastes *'alright'* but *'it has less vitamins in it than the one we buy and this is why it is less expensive'*. In the poorest study area in SE Maluku relatively few households were officially entitled to Raskin according to the village secretary and these entitlements were reduced in quantity in order for more people to benefit. Another rice provisioning programme (*rawan pangan*) operates here too but people feel that the village leadership is keeping some of the rice for themselves. In the other SE Maluku location people told us they get Raskin occasionally but said it is also possible to *'buy it from a Chinese store where it is mixed with better rice'.* As we found in earlier RCA studies, the price of Raskin, which is supposed to be uniformly fixed, varies.

In one C Kalimantan location within a very small area the price ranged from IDR 1,000/kg to IDR 14,000/kg. In the other C Kalimantan location many people said Raskin had stopped two years ago. Some sub-villages were still getting irregularly and paying around 10,000/kg but they mostly on-sell to a trader at IDR 15,000/kg or had to *'mix with other rice to make it possible to eat'*. Here there is annual heavy flooding during which the Church provides various food supplies including rice to its members. This is regarded as better quality than the rice from the Government.

The monthly *posyandu* facilitated by the local health authorities is active and regular in nearly every study location. People explained it usually involves several health staff who may run concurrent sessions for immunization, baby monitoring and *'care for the elderly'*, although in one location in C Kalimantan the *mantri* had to run the whole programme himself. Nevertheless, mothers here automatically attend until their children are about two years old, *'it is a must'*, they say. This *posyandu* does not provide supplementary food suggesting that the main motivation to attend is not to receive this as often claimed by health service providers. There was no evidence of any supplementary feeding programmes in C Kalimantan. We cover the role of the *posyandu* further on page 78. as it specifically relates to baby care. As well as baby monitoring, the *posyandu* in coastal SE Maluku also provides free check-up for *'the over 45s'*. However, people complained that the contract nurse who was supposed to be running these sessions '*is very lazy and runs off to Ambon for a few weeks at a* time'.

Program Keluarga Harapan (PKH) a national conditional cash transfer programme for poor families is operating in each of the study locations. However, the work of PKH facilitators were not mentioned at all. There was no mention of any '*family development sessions'*, which are supposed to be integral to the later versions of the programme

Community led total sanitation (CLTS) has been adopted as a Government nationwide programme but nobody, including health officials and village leaders, mentioned this programme in any of our study locations even when probed. Open defeacation was extensive in all the study locations. The two toilet programmes mentioned before on page 44 may be a variation of the CLTS approach.

A number of water schemes had been funded by government programmes, notably through PNPM.

The table presented earlier describes some of the problems with these, especially concerning maintenance. In remote inland C Kalimantan, there continues to be a major dispute over the maintenance of water pipes and the use of the maintenance fee which has resulted in cessation of water supply. Also here a PNPM cement water tank constructed less than 10 years ago has a large hole in it and is no longer functional. The Village secretary says that they were forced to sign a document saying this tank was a priority for the village and knows that there was corruption involved and further PNPM support has been withheld. The land owner of the land where the PNPM water tank is situated now wants to turn this water tank into a house. In SE Maluku, a PNPM constructed water pipe only works during the wet season so is non-functional from July until November but the village secretary has her own pump which brings water directly to her own water tank which she allows some to use on payment of a small fee.

According to the midwife the *posyandu* involves 4 - 5 sub district health staff from the *puskesmas* - 1 for nutrition, 1 for elderly care issues, 1-2 for weighing and measuring infants, and 1 for ad-ministration. These health staff would be helped by the five local cadre.

N Sulawesi

Two of us accompanied two different nurses on different days as they implemented the school biscuit programme in three different primary schools and this is what we observed;

(i) The teacher at the first school remarked *'this is the first time ever for this biscuit programme although they have come to give immunizations before'*. All the children at the primary school were to be weighed and their heights measured, but the weighing scale, which had been given to the school by the *puskesmas* could not be found. So the nurse measured the arm circumference instead. Those children who were judged to be small were given a pack of six smaller packets of biscuits and others were given one small packet only. The nurse told them *'Eat these yourself, these are not for your mums and dads or your older brothers and sisters'*. When she finished she told them *'those who got biscuits this year don't expect I will do this next year'*. We went to another school where the weighing scale did not work. I tried it and it was weighing 20% higher than it should do. All the children here were very happy to get the biscuits even though it meant the nurse told everyone they were malnourished. The nurse gave her own son a pack of biscuits.

(ii) I agreed to help the nurse distribute biscuits at the primary school. She arrived late. She told me the biscuits were provided by the *puskesmas* from the Ministry of Health Nutrition programme and it was only for first grade students unlike the interpretation of the programme experienced by my fellow researcher (i). The session started with the nurse showing how to show there is iodine in salt using starch which turns purple. She said '*You have to eat iodine to prevent goitre'* but did not explain what that was. She did not mention that it is good for brain development. She wrote down the weights and heights of all the class of about thirty to forty children. The nurse taking the height measurements often made mistakes and called out heights which were clearly too high (e.g. 160cms) but these were recorded by the other nurse without question. About three children were given two packets of biscuits rather than one because they were *'smaller'*. All the children ripped open their biscuits and ate them there and then even though the nurse said *'eat them when you get home'.* The nurses shared the remaining biscuits between themselves.

SE Maluku

Seasonality effects on access

Seasonality affects many facets of life in all of the study locations, from food and water accessibility to general health. Researchers were visiting during the dry season in all locations, and in general it was this dry season which was the more difficult time of year for people. In the SE Maluku locations the dry season is the *musim angin timur* (easterly winds season), when winds create rougher seas and ocean travel can be more difficult and dangerous This makes trips to the main markets difficult and affects fishing.

The type of fish available changes at different points of the year - the biggest effect was seen in coastal N Sulawesi and in very remote coastal SE Maluku. In the former, people said that it was currently the low season for fish but one fisherman said that he '*does well any season'* and the research team in this location observed that the amount of fish being caught seemed to still be quite good. By contrast, people in two of the sub-villages in very remote coastal SE Maluku told us that they rarely go out fishing during the current *musim angin timur* and either need to buy fish, depend on neighbours and relatives or go without. They buy from a neighbouring sub-village which is still regularly fishing because they are more skilled fishermen and have bigger boats and engines but also because 'our' village has accepted this as a cultural norm.

In inland C Kalimantan, most of the sub-villages are flooded for 2-3 months during the rainy season. While this highly constrains cash income earning opportunities for many it also meant an abundance of fish: *'we can wash our clothes inside the house and the fish come right inside the house'* . This results in eating more fish but less rice. In inland N Sulawesi, the dry season means less income for those who get paid to work in the paddy fields and one family said that currently they can't afford fish because of this.

People in inland C Kalimantan, both N Sulawesi locations and very remote coastal SE Maluku told us that vegetables were more readily available from their own gardens during the rainy season. While families in inland C Kalimantan and inland N Sulawesi were able to buy vegetables during the dry season, those in coastal N Sulawesi and very remote coastal SE Maluku simply ate less or no vegetables. In coastal N Sulawesi this was less of an issue with access and more about choice and convenience as there were plenty in the market, whereas in very remote coastal SE Maluku families did not have the option to buy. People explained that there are less fruits towards the end of the dry season but, given that few gave much importance to eating fruit, this was not a concern.

The dry season had the biggest effect on water availability, with people in locations such as very remote coastal SE Maluku needing to walk at least 20 minutes uphill and into the forest to get fresh water which then required a climb down into a cave to collect one jerry can at a time. While many men and boys would often bathe here, women said that it was too public for them and they carried water back to the village for bathing as well as for washing clothes, cooking, and washing dishes.

The water level in the wells being used by most people in inland N Sulawesi and one sub-village in coastal SE Maluku drop significantly during the dry season, and people said the water would be *'dirtier.'* This leads people in inland N Sulawesi to prefer to defaecate and bathe at the river, while families in coastal SE Maluku had to use alternative sources of drinking water from another well around 15 minutes walk away.

In C Kalimantan and inland N Sulawesi and coastal SE Maluku, people said that instances of diarrhoea increase in the dry season. In coastal N Sulawesi, where diarrhoea was not mentioned as a problem, fever and cough were said to be common during the dry season, especially for children. Mothers said this was because of *'dust'* or because they *'drink too much es.'*

People in C Kalimantan told us that they had to work harder to earn money during the dry season to cover the wet season when the illegal gold mining machinery on the rivers cannot work, and this, they felt was a reason for more people to get sick. People said they got sick from inhaling the *'fog'* during the dry season, which was actually smoke from burning of farm land.

Malaria was not prevalent in almost all locations but in coastal N Sulawesi it was linked with the rainy season, while in remote inland C Kalimantan malaria was not correlated to seasons.

Despite the usual expectation to bathe at least once or twice a day in other villages I have stayed in , here I was able to bathe only twice during my four-night stay. Once involved a trek into the hills to the small spring and the second time when my host family visited relatives in a neighbouring village who had better access to water. My 'father' did not take a bath the entire time I was there.

SE Maluku

Knowledge and application of good practice

Knowledge and practice-defaecation

Generally, people said that diarrhoea was not that common and they felt they were, on the whole, rather healthy.

The stark exception is C Kalimantan where people mentioned diarrhoea often , we observed it (and experienced it!) and health staff in the area confirmed that diarrhoea was quite prevalent. One *puskesmas* nurse told us they were currently (dry season) seeing about five adult patients per week and about eighteen children.

People attribute the causes of diarrhoea in different ways;

- Swimming in the river
- Swallowing the poison in the river which is used to catch fish
- Pollution from the mining activities
- Mercury from the gold mining
- Packaged foods
- Medicines
- Changing weather (including extended dry seasons)
- Eating instant noodles every day
- Processing sea cucumber (according to a nurse)
- Hot weather (according to a nurse)
- Eating 'es' (according to both nurses and people)

These associations with the river in C Kalimantan relate to additional (external) activities and provide plausible explanations for people as to why the incidence of diarrhoea has increased compared to decades ago. They have not connected this to their floating toilets and the use of the river water for drinking, swimming, bathing , washing dishes and having fun in the water. These activities have always been there, they say, so they cannot explain the change. Similarly, packaged foods, medicines and climate change are also blamed for the worsening incidence of diarrhoea. This further places blame on external factors rather than their own practices. We noticed that the only people who associated the consumption of river water with diarrhoea were health professionals, some members of local government and some residents who had travelled outside of C Kalimantan to places like Sulawesi and Java.

There are more incidences of diarrhoea in SE Maluku than N Sulawesi but much less mentioned than in C Kalimantan. One of our mothers felt that 4 out of 12 children die because of diarrhoea in the poorer SE Maluku location but others felt this was an exaggeration and for those who die '*it was their destiny'.*

A two-year child in 'my' family had died of diarrhoea one month before I stayed there. 'My' mother (of nine children) said that if her baby has diarrhoea five times per day then it's 'still normal.' She does not see this as an illness. She seemed surprised how quickly her baby had died.

C Kalimantan

Knowledge and practice-drinking water

Across all locations, people said that clear water is better for drinking. In coastal SE Maluku, a family showed us how they boil well water and then filter it through a homemade cloth filter because the *'well water is dusty.*' No matter the source, people are mainly sure that they should boil their drinking water. They did not specifically say what not doing this would lead to, but this has become normalised practice and is what people mostly do. However, in the first C Kalimantan location the addition of *'tawas'* (potassium alum) to clear the water either before or after boiling seems to have been mistaken by some families as sufficient to make the water ready to drink. People in this area spoke of *air mat*i (dead water) as being boiled water which '*kills diseases'* and *air hidup* (live water) as un-boiled water. But they were not always consistent about using *air mati* for drinking.

However, some families told us that they were now exclusively drinking bottled water which is processed by a local kiosk owner who uses both *tawas* and *kaporit* (calcium hypochlorite) in its preparation. One family explained that they felt this bottled water was *'fresher than piped water'* adding *'it is not smelly and it is what people in town do'*. This family said that those who use this water rarely get diarrhoea now. Meanwhile, none of our four households in the second C Kalimantan location boiled their drinking water. Some were taking water from a tributary upstream which may have been less contaminated than the water closer to home but most felt that this was an effort (typically involving a 10 minute boat trip) , even though diarrhoea was being associated with the river.

For Your Information

Tawas, or potassium alum, is a sulphate which is commonly used for water purification. Adding tawas makes particles clump together, but does not disinfect the water. Kaporit, or calcium hydrochloride, is an inorganic compound used for water treatment which unlike tawas, acts as a disinfectant. (Note: Kaporit is distinct from sodium hypochlorite, or liquid bleach)

Knowledge and practice–food preparation and consumption

A recurrent theme in different locations is that food cooked at home is better than food from outside for example an HHH mother in N Sulawesi said, *'Rice and fish at home is healthy, so getting sick must be about what you eat outside'.*

We heard quite a bit about cholesterol, especially in N Sulawesi and to a lesser extent in C Kalimantan. A number of causes were shared;

- *'if you eat too many sweet cassava you will get high cholesterol' ,*
- *'it is the oil you use in cooking that gives you cholesterol'*
- *'don't eat too much or you will get cholesterol'*
- *'don't eat too many chillies'*
- *eating too much roasted corn*
- *eating fried chicken/broiler chicken*
- *eating salty fish*

We are not sure people knew what cholesterol is except that too much is a bad thing.

Each day 'my family' (mum, dad and two preschool age boys) ate fish, rice and *embal*, supplemented by squid provided by a neighbour on my last night. My 'father' always has rice in the house because he is the village secretary. Each dinner and breakfast we take hot sweet tea too. We eat no vegetables except on the first day when we take a watery pumpkin soup.

SE Maluku

Despite eating lots of rice and sugar, few indicated that they were suffering from diabetes (or 'sugar disease'). One couple said they both had this and they were trying to reduce their sugar consumption (but our researcher noted they still put three spoons of sugar in every hot drink they had).

Nobody in the study linked any illness to rice consumption and our observations showed that many families ate rice which had been cooked and left warm throughout the day. One HHH in N Sulawesi inland area explained that when cash was short they make a porridge from rice seasoned with salt and eat this throughout the day. The other two host families here use rice cookers to keep the rice slightly warm all day, a practice most food hygiene specialists do not recommend (see below). In another family in coastal N Sulawesi, the rice was cooked in the late afternoon and left until it was reheated in a rice cooker before eating (but not at a high temperature). In many other homes rice was cooked only once and allowed to cool down slowly (the most risk for contamination) and was kept for many hours, sometimes days.

For Your Information

Background on rice preparation

Cooked rice which is left warm (and is not cooled rapidly) especially over long periods incurs risks of food poisoning because of the highly heat resistant *Bacillus cereus* prevalent in uncooked rice. Eating contaminated rice can lead to vomiting and diarrhoea. Leaving at room temperature for extensive periods of time as well as re-warming (rather than re-heating to a high temperature) all increases risks.

The people living in the SE Maluku who prepare bitter cassava are well aware of its potential cyanide poisoning affects and undertake an extensive soaking and pressing process to remove the toxins before consumption. But even so, people complained of indigestion from eating *embal* and some older people say the problem gets worse with old age and they like to alternate with rice. Mothers were ambivalent about giving *embal* to their babies with some saying they would wait until they were a year old and others giving *embal* crackers at 4-5 months. Doctors in the area had also warned them of eating too much *embal*. We were told about a woman who died recently eating cassava without proper preparation and said that if only a little is taken they can '*flush it out with coconut water*'. To eat an alternative means finding cash to buy rice or other staples, something very hard for the inhabitants of our poorest study location.

People across all our study sites habitually use MSG in their cooking at home and generally, we observed, in large quantities.

They often shared that they knew '*it is not good*' but they could not do without it[11]. As the box suggests, this practice may not be so bad.

Recognising the dangers of only observation for assessing malnutrition levels among children, the RCA team nevertheless felt that children in the study locations were not obviously malnourished. Their food intake was regular. Conversations suggested that there had been more malnutrition before in all the study sites and some cases remained. For example one sub-village leader said ' *we still have few cases of malnutrition in babies – it is because we, the parents, are careless and don't feed them properly – and they put their hands on the floor and then into their mouths'* (SE Maluku). In C Kalimantan people said there were *'skinny kids but it is because they don't like to eat'* or because their *'family are all short and skinny'* or because *'there are too many in the family and they don't look after them properly'*. On the whole people did not think that these '*skinny kids*' did not have access to food but rather they were *'bad eaters'*, had '*careless parents*' or were *'lazy'* .

For Your Information

Is MSG a problem?

Monosodium glutamate (MSG) has gained a bad reputation in recent years and has been linked to a range of ailments including headaches, nausea and obesity but the hard evidence of its harmful effects remain elusive and world Food Authorities do not ban it but often require its presence in foodstuff to be signalled.

'Too much MSG makes your body weak' said my 'mother' but the family still eats a lot.

C Kalimantan

One day, my grandma, bought fresh fish from a fisherman. When my mum saw the fish, she complained that the fish was not fresh anymore because the fisherman caught the fish in the middle of the night instead of in the morning. So she took the fish back, and exchanged it for fresh fish that have been caught recently in the morning.

SE Maluku

[11] Supporting some claims that it is an addictive substance.

Knowledge and practice-cleanliness

People often could not say exactly why they practice a particular hygiene behaviour, or where a particular bit of knowledge came from. For example, nobody could explain where the ubiquitous two bucket system of washing dishes described above originated from but it seems it has been practiced for several generations and has become the 'norm'. The grandmother in coastal N Sulawesi who yelled at a researcher for putting his hands into the water tank that they use for drinking water knew you should not do that to water you are going to drink because this had also become community knowledge. Some people here said specifically that they know about germs and bacteria from TV. The children in one HHH complained when one of the researchers walked barefoot, saying that they knew from Dettol and Lifebuoy advertisements that germs can enter the feet and toenails. This N Sulawesi location was the only location to specifically mention germs or bacteria. Otherwise, people's practices reflected a heavy emphasis on the visual aspects of cleanliness rather than matters of hygiene.

Another near ubiquitous received wisdom is that bubbles and foam are an important part of getting clothes clean and a key visual marker which indicated cleanliness. In inland N Sulawesi, many people add some additional detergent before scrubbing each individual piece of clothing. With the relative lack of water in very remote coastal SE Maluku and the amount of soap people were using, clothing was often not able to be fully rinsed. One mother commented that her clothes are sometimes itchy but said this was '*probably because I dry them on the street*' rather than attributing this to residual detergent. All of this means that people were using a lot of detergent. For example, a HHH in coastal SE Maluku (2 parents and 3 children) use a 1 kg bag of laundry powder each week. Other local techniques which people felt got clothes clean included heavy brushing of clothing or smacking the clothes onto wood or rocks. The desire for bubbles also extends to bathing habits, for example in one HHH in remote inland C Kalimantan the mother would mix shampoo with detergent when bathing her children to create more bubbles.

Most people know that they should wash their hands, or have clean hands, before eating, but they knew less about what makes hands clean. Hand washing often consists of simply dunking one's hand in the dishwashing buckets or in a small bowl of water without using any additional soap. Most people do however bathe before eating dinner. In some locations like coastal N Sulawesi, more emphasis is put on washing one's hands **after** eating because people want to get rid of the smell of the fish and like the smell of the soap. In all locations except for C Kalimantan, a majority of people are using utensils rather than their hands to eat most meals but did not say this related to any hygiene related concerns.

Every morning the front of the house was swept and the leaves burned. *'we are told we must keep the flower park clean'* my mother explained. But the household garbage is collected in a bucket and thrown over the back fence. The neighbours toss the used diapers there too.

N Sulawesi

Cleanliness for individuals is identified by people as not being *'sweaty,' 'dusty,'* or *'dirty,'* and people view regular bathing and changing clothes as important ways of dealing with this. The motivation to bathe is also very much about feeling *'refreshed,'* and for most locations this is at least as important a factor, if not more so, for taking baths. Most people bathe twice a day (although sometimes not using soap) and change their clothes at least once with a few exceptions.

One HHH father in very remote coastal SE Maluku didn't bathe during the researcher's stay but did change clothes each day. A different HHH in very remote coastal SE Maluku was bathing once a day but would only change their clothes every 2 to 3 days. In coastal SE Maluku, if the HHH parents in one home arrived late in the evening from their garden they would change their clothes but not take a bath. The decision not to use soap often revolved around cost, such as in very remote coastal SE Maluku, but in some cases soap simply wasn't seen as necessary to use every time.

> *"Eating chilli makes you sweat and then you don't need to exercise so much"*
>
> N Sulawesi

Teeth brushing practices varied with very little observed in very remote coastal SE Maluku and inland C Kalimantan. In remote inland C Kalimantan, people tend to brush once a day while they were bathing at the river next to the floating toilets. In inland N Sulawesi, one family said that they prefer to brush their teeth at home because they feel that slime and kids peeing in the river made it less healthy. Many people in coastal SE Maluku brush their teeth, generally doing so in the morning with water taken from their nearby wells. When brushing nearly everyone uses toothpaste, and just like the need for soap bubbles in washing, also like to make lots of foam implying this makes teeth cleaner. Although teeth brushing was less common in C Kalimantan the younger generation are keen to keep their teeth looking good.

Grey water from washing is not seen to be a particular concern and people dispose of this randomly around their homes, sometimes near wells where they would be washing, or dump into rivers. Poo from babies and children is also not seen as problematic, and could often be seen around homes and wells. A 'dirty home' was seen to be one that doesn't *'look nice'* or *'neat'* from the front of the house. Trash, and other physical waste such as leaves, is viewed as an eye sore if it was allowed to accumulate in front of homes because this would give the impression of a dirty home. Still, trash would often be thrown randomly around the house to be swept up later (generally by the mother) if it could be seen from the road or path. Trash beneath and behind homes was often ignored.

Knowledge and practice-healthy lifestyle

People told us they are healthy and led healthy lives. We observed some obesity among a few adults and children and the older generation often talked about the younger generation being *'lazy'.*

Similar to the way people talk about cholesterol, N Sulawesi villagers also talked a lot about blood pressure, where it seems to be the most important diagnostic relating to *'being healthy'* (see box). It was also talked about in one location in SE Maluku where they too noted that a blood pressure of 100-120 was *'normal'*. The causes of abnormal blood pressure according to people included;

- you don't work hard enough
- eat too much meat , too much chilli
- not enough sleep

The abnormal blood pressure results often led to the health staff suggesting taking medication, which people did not know about except to describe its colour.

Everywhere people indicated a preference for buying medicines for common ailments from kiosks, markets or pharmacies in town rather than visiting the *puskesmas*. The kiosks sellers told us they buy in town and *'know what people like'*. Local *puskesmas* opening hours, poor accessibility and unreliable medicine stocks were all deterrents to going there and it is *'easier to buy what you need in the kiosk'*. As we have found in other RCA studies[12], some people also felt the quality of medicines in *puskesmas* is inferior. When things get more serious those within access to district health facilities prefer to go directly to them.

[12] People Views and Experience of National Social Assistance Programmes (2015), Frontline Health Service Providers, 2015.

Smoking was prevalent in all locations and in N Sulawesi fishermen told us that sweating and coughing could be 'cured' by smoking, *'because it heats your body and then you don't need to go to the doctor.'* They also said smoking *'gives you energy'.* Men told us that , *'If you can smoke everyday and still go to the field, then you are healthy, even if you are seventy'*. A HHH father took cigarettes from his wife's kiosk every day and confided *'I have to smoke and drink coffee – it's what gives me energy'*. Here men spend about IDR 15-30,000 per day on packs of branded cigarettes or about 1/6th of this on hand-rolled cigarettes. A boy said it was quite usual for children to smoke and he had started when he was only ten. He said that he was not scolded by his parents as long as *'he helped in the farm'*. In C Kalimantan men and youth talked about smoking giving them *'self-confidence'* and nearly all did smoke. The cigarettes were easily available in *warungs* and kiosks and, like N Sulawesi, men spend about IDR 15,000 per day (equivalent to about 30% of their household daily expenses). In SE Maluku they said they smoke to keep awake (especially while fishing). Smoking close to children is common even while breastfeeding. While few women smoke in N Sulawesi locations, in C Kalimantan many women smoke and it is considered quite normal with some starting while they are still in primary school and continuing during pregnancies. In coastal SE Maluku, the local nurse blamed the prevalence of coughs in children on their parents smoking. Betel nut chewing is most prevalent in SE Maluku where often the women chew betel nut and the men smoke, though older C Kalimantan women also chew betel nut.

preoccupation with blood pressure

The oldest uncle (mid-60s) was sick when I was there, so everyday many family members gathered on the veranda to chat about his condition and meet the local *mantri* who took is blood pressure each morning. "*How is he, Pak?"* an aunty asked, *"His blood pressure is normal, 120" "my turn"* the aunty sat next to Pak Mantri to be checked, *"90"* Pak Mantri said. "*Oh, low blood pressure! It must because I had less sleep last night"* The aunty grumbled and left. "*My turn! My turn"* each of the others cried queuing to get their blood pressure checked by Pak Mantri who one by one read out the readings. Each reading was responded to by a self diagnosis which Pak mantra did not dispute,

"150" …..."Gosh! high blood pressure, too much eating chilli"

"80" …….."low pressure, I need more sleep"

"110"…… "yes normal!"

180 ……..' I have high blood' and Pak mantri gave her a red capsule to take three times a day to lower blood pressure

The aunty said "*if its 100 to 120, means that you are healthy. If under 100, you should take blood pills and rest. Be aware if you are over 120, high blood pressure will cause you many problems! If it reaches 200: you will die!"*

N Sulawesi

My family had a small kiosk in front of the house which stocked packaged food, toiletries and other necessities. It also had a wide variety of medicines including anti-biotics. The mother said she had taught herself about the medicines and people were confident with here recommendations. She said she suggested alternatives if she was out of stock and knew what she was doing because '*it had worked before*'

N Sulawesi

My neighbour is a farmer and has very basic education. She has no toilet at her house and no health insurance but she can name a whole list of medicines that she needs and explain why she needs them

SE Maluku

Babies nutrition and hygiene

Baby feeding

Breastfeeding practices varied across the study locations. Breastfeeding is not necessarily considered best as many people said the milk powder advertisements made it clear that this was good too. Rarely people said it might be better, e.g. *'babies of mothers who give their babies formula have wet poo and poo a lot'* (C Kalimantan) and *'the doctor said it* (breastfeeding) *is better for brain development'* (C Kalimantan). Nevertheless most mothers told us they breastfeed for at least six months, but this was never **exclusive** breastfeeding. Some told us that younger mothers do not like to breastfeed.

Colostrum feeding was not spontaneously talked about in study locations as a good practice. Even when we had conversations about breastfeeding in the first week after birth, people often just talked about not having enough milk or difficulties in the early days. Some view it as 'dirty' milk or 'expired' milk and would purposely discard it (this included specific advice from one TBA in remote inland C Kalimantan who had delivered the majority of the babies in the village and who also recommended that babies should be given coconut water straight after birth to *'clean out their insides*.') One HHH mother (coastal SE Maluku) said that her neighbour's mother believes that babies should not have breast milk in the 1st week and so the daughter gave formula first and then started breastfeeding. Only a few, including schoolgirls, said that they knew that breastmilk was healthy and should be given to babies.

"We follow what our mothers' say"
mothers, SE Maluku

"A big healthy baby is one who is continually eating"

mother, C Kalimantan

My family told me that they will breastfeed within hours after *birth 'as soon as there is milk'* but said that the practice is changing as some young mothers don't want to breastfeed. My 'mother' said that she had not been able to breastfeed her eldest and youngest *'because there was no milk'* and she gave them SGM from the start. She remembers it cost IDR 50,000/box and she needed 4 boxes per week, At two months she added Sun biscuits (IDR 10,000/ pack) mixed in water and then at 6 months she gave them rice porridge. Each day I was there she fed her 8 month baby with porridge only lying down.

SE Maluku

The table below illustrates how breast-feeding is never practised exclusively for the first six month in all locations.

11. Introduction of Liquids and Solids in Babies Diets

Location	Age when other food/drink given	What food/drink?	Comments
Inland N Sulawesi	1 week	Mashed banana or papaya	Mothers and grandmothers were proud that their babies took these solids early *' makes strong and healthy'*
Inland N Sulawesi	1 week	Mashed banana	-
coastal SE Maluku	1-4 months	Milk formula, syrup water, coffee	-
	3-4 months	Packet porridge, cassava & potatoes	-
remote inland C Kalimantan	1 week	Coconut water	-
	3 months	Rice, crackers	Coughing risk with crackers
inland C Kalimantan	1 week	Water	Water treatment specially problematic here
	3-4 months	Rice, packet porridge, crackers	-
Very remote coastal SE Maluku	2-4 months	Milk formula	-
		Packet porridge, *embal* biscuits	-

The table illustrates that other liquids and solid foods are generally introduced before six months. The reasons vary and in several cases mothers told us they had heard about exclusive breastfeeding. One mother (remote inland C Kalimantan) told us that a 'doctor' had told them at the *posyandu* meeting that they should exclusively breastfeed until eight months but she admitted that she and others did not follow this advice. In inland N Sulawesi, a few mothers shared that they *'know'* breastfeeding should be for a full six months, but personally they like to try to feed their babies solid foods as early as possible, *'to see if it's ready to eat.'* In coastal N Sulawesi, one mother explained the common practice there of putting a drop of honey on the babies tongue within the first twenty four hours after birth and then each feeding time for the next 7 days '*to tickle the taste buds*' and stimulate the baby to breast feed.

Some mothers told us they stopped breastfeeding completely within the first few months, while others said they never started. Among those who had never breast fed one HHH mother (coastal SE Maluku) told us she didn't breastfeed her youngest child *'because there was no milk*.'Another told us '*My baby does not accept the nipple*' (FHH, coastal N Sulawesi) and another HHH mother (very remote coastal SE Maluku) said she had tried breastfeeding her child but stopped '*because I am too busy.*'

One mother pretended that her nipples had been bitten by a dog and put lipstick on them to make them look sore. Every time the baby went near she reminded him and the baby was eventually put off by this. The mother then gave the child condensed milk mixed with water

N Sulawesi

In coastal N Sulawesi, there were two examples of babies who had not been breastfed because their mothers worked away in Manado and had left their babies in the care of grandmothers. One of these grandmothers said she had told her daughter to give her baby breast milk at '*least once for immunity'*, but her daughter refused because she was *'afraid to get too attached to the baby.'*

Most who had stopped breastfeeding early explained that it was because they had *'insufficient milk'.* They concluded this because their babies were crying a lot and always seem to need feeding so it was assumed they were not getting enough milk. One mother (inland N Sulawesi) told us that her second child '*only wanted breast milk for the first two months.*' In inland C Kalimantan, one mother started giving her baby sweet tea and crackers because she '*didn't have enough milk,'* adding that the baby '*really likes the sweet tea'*. Another in C Kalimantan gave her baby *'hot rice water'.* But in most cases mothers switch to using powdered milk formula. This becomes a major household expense, and mothers said they spend between IDR 50,000-75,000 per week on SGM brand milk powder.

'We know that we should only breastfeed but we don't do it. If the baby takes banana and chews it then it is OK , especially if the baby doesn't cry or have diarrhoea. It means the stomach is ready . We give water after the banana to help them swallow.'

Some others had introduced banana at two weeks and were proud that their babies' stomachs were stronger than others. Everyone here starts with banana

N Sulawesi


Bebelac 4

Echoing many others, one mother (very remote coastal SE Maluku) said she '*knew when to stop'* breastfeeding each of her children. They know this because they '*start grabbing for our food', putting things in their mouth',* or *'clutching for my drink'*. In a few places we observed that some mothers continue breastfeeding toddlers and even a boy as old as five, but this was less about nutrition and more about offering a comforting pacifier, mothers explained.

In general, people knew more about different types of baby formula than they did about good breastfeeding practices. This was primarily due to advertising (discussed further below). Although both younger mothers and older generations were similarly supportive of the use of baby formula, younger mothers were more likely to rely on formula milk versus breast milk and this was mentioned explicitly in coastal SE Maluku. Powdered baby formula is available in all study locations and many use it telling us that SGM is the most commonly used. However, in the poorest of our study locations in SE Maluku baby milk formula was only mentioned by one family and Sun brand powdered porridge as the food or drink supplement of choice. Many mothers could describe different types of formula for different needs, for example *'use this SGM for the first six months, then this SGM until one year, then this SGM,'*. Others purposely switch brands of formula depending on the babies age, believing that, for example, Lactogen brand is better for babies over six months. As discussed further on page 82, both mothers and fathers often described different brands of formula as having different, very specific benefits, such as making a baby fat, tall, or smart.

While baby formula was widely used, it wasn't always the first supplemental food or liquid. In coastal N Sulawesi and remote inland C Kalimantan in particular, many mothers shared that they would try to introduce solid foods as soon as possible, which was often in the first few weeks. *'Kalimantan people are stronger than others because they can eat rice from 4 months old'* (HHH, remote inland C Kalimantan) exemplifies the pride parents and grandparents shared in this practice. In inland N Sulawesi, mothers say they always try to introduce bananas within the first few weeks. One baby in this location had taken banana at two weeks and the family was very proud of this. This practise is also advised by the TBA in remote inland C Kalimantan who has delivered most the babies in the village and is a trusted source for information. Green bean porridge, along with packaged Sun brand porridge, are popular first foods in the SE Maluku locations. Both are also often given as a supplementary food by some of the p*osyandu*. One mother in coastal SE Maluku said that if she has enough money she will buy Sun porridge because it is '*better than rice porridge.*' She said that other mothers like to buy Sun when they go to town. The local bitter cassava was also sometimes given as a first solid food in very remote coastal SE Maluku, while in coastal SE Maluku one mother said that many mothers try to feed their babies shredded cassava at around three months old. In inland C Kalimantan, one HHH mother started giving her baby crackers and chilli sauce at 5 months old. MSG and/or salt is commonly added to homemade rice porridge across the study locations, and in general it is seen as good to try to introduce rice at least before the baby is a year-old. Some mix small amounts of vegetables such as cassava leaf, spinach leaf and carrots with the porridge but many only give rice porridge.

In both N Sulawesi locations, we observed mothers often comparing the size of their babies as a sign that they were well fed. Large and fat babies are role models to emulate and there was tangible competition on this. To reach this mothers and grandmothers told us that the sooner the baby can eat solid foods the better so they could put on weight and gain strength (as illustrated well in the observation right).

Getting supplementary food from the *posyandu* is sometimes viewed negatively by other families and mothers. For example, one neighbour in N Sulawesi told us "*My baby never had this* [supplements] *because I care for my baby - those who get that don't care for their babies"* (FHH mother, coastal N Sulawesi). Another neighbour mother said she did not want to take supplements for her baby as *'others will blame me that I am not taking care of my baby'* and others we chatted to endorsed this view. In C Kalimantan a mother told us *'If you have a skinny child it is shameful and you will be teased and mocked'* (HH, inland C Kalimantan).

In most cases babies were fed and given drinks whenever they wanted and whatever they '*seemed interested in*' trying. Babies were given coffee in both SE Maluku locations and sweet tea was given in inland C Kalimantan, inland N Sulawesi, and coastal SE Maluku. An eight month old baby in a FHH in coastal SE Maluku was given candies by her mother that would be shared with her older brother (4 years old). Babies are commonly given crackers and fish in both Kalimantan locations, cassava in both Maluku locations, and bananas in the Sulawesi locations.

"adult food will make the baby stronger"

mother, C Kalimantan

"I give the baby rice so he'll be able to talk sooner "

mother, C Kalimantan

My 'grandma' looks after her two month grandson as her daughter works away in Manado. He is already 9kg and others think he looks like a one year old. One day she sat with another grandma who was looking after her grandson too. This lady said *'my grandson can get bigger like yours if I fed him banana… I tried from two weeks but his poo got hard so I stopped… but otherwise he would be big like yours'*. She was very envious.

N Sulawesi coastal

Baby Hygiene

During conversations, mothers and others did not mention the need for any special practices related to baby hygiene. Our observations confirmed that there is little special attention given especially in relation to what babies put into their mouths or hygienic disposal of baby poo.

This series of photos above best illustrates the issue. None of 'our' mothers washed their hands or their nipples before breastfeeding. Mothers and others put unwashed fingers into their babies mouths to pacify them when they were crying or teething. Baby feeding bottles were always washed with the other utensils and no special cleaning or brushing was done. For example, in one household in C Kalimantan the mother or older children wash the baby bottle in the river with a sponge. In many places feeding bottles were left lying around with left over syrup water, milky tea or coffee, formula for babies to return to later in the day. Often these were lying on the floor.

Most babies pooed directly into their clothing or went bare-bottomed, although in both N Sulawesi locations many babies wore synthetic Pampers brand diapers for part of the day (often at night). These diapers are generally purchased individually for IDR 3,500 , and in coastal N Sulawesi many were disposed of on the beach. One of our mothers in SE Maluku tells the older daughter to hold the baby over the small river next to the house when she thinks that he is about to poo. Another of our mothers in inland N Sulawesi disposes of her baby's poo by throwing into the edge of their yard. In both C Kalimantan locations as mentioned before, many families have a removable floorboard towards the back of the house over which babies would be seated to poo. In remote inland C Kalimantan, one HHH mother was proud that her baby had only pooed once in three days while we were there.

Soiled pants were washed along with the family's other clothing. Researchers also observed that while babies' bottoms were often rinsed with water after pooing, soap was rarely used and the parents would rarely wash their hands before or after doing this. We observed babies were bathed quite often during the day sometimes just by pouring water over them and not always with soap. Sometimes this was more related to making them *'smell nice'* than to cleanliness or hygiene. In remote inland C Kalimantan babies, including a 1 week old baby, were washed in the polluted river.

"If my child is sick it's a signal that he or she is growing" (HHH, inland C Kalimantan) is typical of the view taken in most areas. In other words, getting sick is just a normal part of childhood and growing up. Coughs, fever and running noses are regarded as 'normal' for babies and generally seen as not something to be concerned about. In remote inland C Kalimantan, people said that fever was a common illness, particularly for children, and a mother said that fever is part of the child's development indicating that they *"mau pintar"* (want to be smart). In a sub-village in SE Maluku a number of children were coughing with phlegm but people said they will '*grow out of it'* and it was not considered serious. This sentiment was echoed in another area of SE Maluku where mothers said that "*This* [cough with phlegm] *is because they are kids - it will disappear when they are older*" (very remote coastal SE Maluku).

'My' mother pours water over the baby and then puts baby oil and baby powder on

N Sulawesi

'My' mother took off the Pamper diaper off her toddler daughter and popped pants straight on.

N Sulawesi

Many of us saw babies being given objects to play with and suck, including cigarette lighters and plastic bottles. In one place neighbours had given the baby an old vaginal cream bottle to play with.

Our team rarely saw baby feeding bottles being cleaned. My 'mother' put new milk into a bottle for her eighteen month girl in the morning without washing from the night before. My team colleague saw her neighbour washing bottles for her 5 month baby by shaking it up with a little water and a tiny amount of soap only.

N Sulawesi

The eight moth baby was coughing all the time during my stay but the family said they did not plan to do anything. This was 'normal'

SE Maluku

Superstitions relating to pregnancy include

- Don't put feet on table or the baby will be premature
- Don't rest chin on hand or put finger to mouth as baby will have a cleft palate
- Don't kill an animal or insect as the baby will look like them

I met one tough lady. She already has four kids, and now she is pregnant for the fifth time. Her husband is a fisherman and is always drunk. So she has to take care of almost everything. She walks each day to the farm which takes 2 hours, collects water from the well and she cuts down trees. When I asked her why she wanted lots of kids, she said *"If someday, one of my kids rebels , I still have another". "And what if, all of your kids rebel?".* She answered *"Well, I am unlucky mom then...."*.

Her good humour and pragmatism were a joy but she lacked certain important knowledge. While other mothers had indicated that colostrum was important for new babies she told me it was dangerous as it was yellow. She called it 'expired milk'

SE Maluku

Nutrition in pregnancy and breastfeeding

Mothers rarely shared any specific practices or foods needed for pregnant or breastfeeding mothers beyond a few superstitions. They told us they eat as normal, although in C Kalimantan some said they avoid fish because it is said to have worms. Some mothers suggested they ate a bit more towards the end of their pregnancy and one mother in SE Maluku said she would eat green bean porridge. They say they keep active throughout the pregnancy and most said they went for monthly ante-natal check ups and we observed iron tablets being given out at one *puskesmas* in SE Maluku.

A few mothers shared some tips for breastfeeding including that eating spinach will help the flow of breast milk (mother, inland C Kalimantan), and drinking *jamu* (traditional herbal drink) ensures the breast milk '*doesn't smell.*' (mother, inland C Kalimantan). But none took any special food or extra liquids.

Female Circumcision

Female circumcision was widely practiced in the first Central Kalimantan location in both this study along with the RCA Study on Frontline Health Providers. In the Frontline Health Providers study, a TBA was performing female and male circumcisions in one village using a rusty knife which had been *'handed down from generations'*, noting that female circumcision is *'part of our religion'*. In this study meanwhile, one HHH mother said that this is done when girls are two years old and *'guarantees a healthy life'*.

Views of the *posyandu* for mothers and child care

As noted above monthly *posyandu* sessions are happening in most of our study locations. The regularity of the *posyandu* is confirmed in other locations in our parallel study on frontline health service providers suggesting this is a rather universal practice. Some told us that the cadre handle most of the *posyandu* tasks themselves, with the *puskesmas* or district health staff overseeing. Immunization is mostly happening although some mothers shared their reasons for not having their children immunized. But few understood what these immunizations are for. Some mothers, especially in SE Maluku told us that immunization is not necessary as their children are healthy. They also explained why they did not attend the *posyandu*, saying they '*forgot the day', 'were too busy'* or *'it was too hot'* or *'too far way'.* However, when they do go they say they get given green beans porridge which they like. In coastal N Sulawesi, one young mother, who was an exception rather than the rule, told us she could not to go to the *posyandu* because the baby '*was asleep'*, she was *'busy'* or visiting my home village, but her mother in law said she *'is just lazy. I am busy with my kiosk, she should take more responsibility*'. In the poorer location in SE Maluku attendance at the monthly *posyandu* has waned since the 'much loved' contract doctor has left. *' We had an active mothers group while he was here but everything has stopped since he left'.* They have no regular midwife visits and no immunization programme but run their own monthly baby feeding programme with ingredients '*sent from town'*. In one sub-village the cadre receives porridge and palm sugar for a feeding programme but not regularly and not more than quarterly.

In the coastal NE Sulawesi a *mantri* keeps very detailed records from the *posyandu* sessions. To ensure the baby books are kept up to date he, like others in this location, retains them rather than giving them to the mothers to keep. He refers any babies whose growth has stagnated or reduced immediately to the local *puskesmas* where they get provided with supplementary food (fresh green beans , biscuits and powdered milk in sachets. In other sub-villages the same referral system operates and people say the food is provided by PNPM Generasi. They said they used to get bigger rations including Sun porridge but that '*government policy has changed and we don't get any more '* but they are hopeful this will resume.

"*People listen but don't do anything*"

midwife in N Sulawesi

I attended a *posyandu* session. It was four days late and the health staff told me they had to distribute the vitamin A tablets urgently. The nurse handed out the tablets and took down names. She gave no advice to the mothers. Mothers said they never got any nutrition advice.

N Sulawesi

In general, mothers said that they get little information from nurses and the weights and heights of their babies are recorded and little else. In inland C Kalimantan and coastal N Sulawesi, people mentioned that they knew the *posyandu* should also be providing supplementary food but that this was not happening.

For their part, health workers shared their frustration in trying to provide information. Some criticized people for being *'lazy'* while others said that they had *'given up'* giving information because people didn't listen to them. This included one midwife in inland N Sulawesi, who says that now for the *posyandu* she only takes a photo of the activity to prove it has happened.

In very remote coastal SE Maluku, the wife of the sub-village head said that she *'has given up giving information because people don't listen to her'* and was afraid of being poorly evaluated by district government staff if she were to continue to go to training sessions provided. A nurse in SE Maluku shared that it was the very young mothers who stop breastfeeding early or never do it, because '*they are lazy'* and only interested in '*going to the city.*'

In N Sulawesi mothers told us they get vitamin A tablets and last got this in August (they referred to a poster they had seen which told them that they would get these in February and August). Apart from C Kalimantan, vitamin A distribution was not mentioned at all in three of the locations.

Influencers

This section explores what influences people's nutrition and hygiene choices and what support is currently being provided for good behaviour change.

> *"nobody wants their kids to carry on as fishermen."*
>
> N Sulawesi

> *"Farming work is dirty, look at teachers who are clean and nice and wear uniforms"*
>
> N Sulawesi

Lifestyle

The desire to adopt elements of a 'modern' lifestyle are a strong influence on people's aspirations and the type of information that they are likely to be influenced by. Future aspirations generally favour urban lifestyles and even where traditional jobs paid quite well (e.g. fishing in N Sulawesi), nobody aspired for their children to continue these manual jobs.

In N Sulawesi where families had the greatest access to cash, TV, and the widest social and economic networks, people purchased more food and toiletries compared to C Kalimantan and SE Maluku, and were fussier about their choices.

Even in SE Maluku where the availability of cash is quite low and they have limited access to urban centres, people were still influenced by advertising and 'city life.' One mother, for example , swore by Shinsui brand whitening soap because she had *'seen an ad in town about it.'* She was also using Johnson brand baby soap for her baby while her daughter said the she likes Citra brand soap. Mothers in this area also said that one '*has to*' use body lotion after bathing because '*we don't feel nice without it.*'

My 'sister' won't bother to take a bath in the morning if she's not going anywhere. She usually takes a bath in the late afternoon, to clean off 'the dust' and applies some powder on the face. She dresses casually (i.e. t-shirt or *daster*) around the house.

On the last morning when I was about to leave, she asked me to wait for her because she wants to buy medicine in the market. I waited for her for 30 minutes and the boat was about to leave. I checked her and found her still straightening her hair with hair iron. She had put on different whitening powder and lotion on her hands, feet, and her face. She was dressed up: '*we have clothes to go to the church, clothes to the market, daily clothes, and clothes for the farm'*, she explained. '*Let's go or the boat we'll be left behind* 'she says as she as she grabs her fancy bag, necklace and watch.

Television

TV is the major source of information about hygiene and nutrition for most people. Nearly all HHH were regularly watching TV in the evenings (most not having electricity during the day), many in their own homes but some watching at a neighbour's house. All HHH in both N Sulawesi locations had their own TVs. very remote coastal SE Maluku was a clear exception - with few TVs and few generators in the villages, only one of the four HHH was regularly watching TV in the evenings and this was the home of the sub village leader. One neighbouring father noted that, *'here we don't have any influence from outside, not like in the city.'* In coastal SE Maluku, no HHH had TVs in their own home but some would watch TV at a neighbour's place, particularly one HHH where there was a TV at the kiosk just across the path from their home. From here this mother had learned about products she could buy when she went to town and about *'unhealthy city food'* like *bakso* (meatballs) saying on TV she had seen people *'mix poison into fast foods.'*

Only one location (inland N Sulawesi) had metered electricity running 24 hours a day, with the majority of other people watching TV using generators which would operate from around 6 until 10 in the evening. In most cases as a generator was turned on, so was the TV, and this would stay on until the generator was turned off or ran out of fuel. In general, people liked to watch *sinetron* (Indonesian soap opera), variety competitions (like singing and dancing competitions), and any movies being shown on TV. One HHH father in remote inland C Kalimantan who was frustrated that the community was always watching *sinetrons* would instead listen to the BBC on his radio, but this was a unique case. All programmes featured extensive advertising.

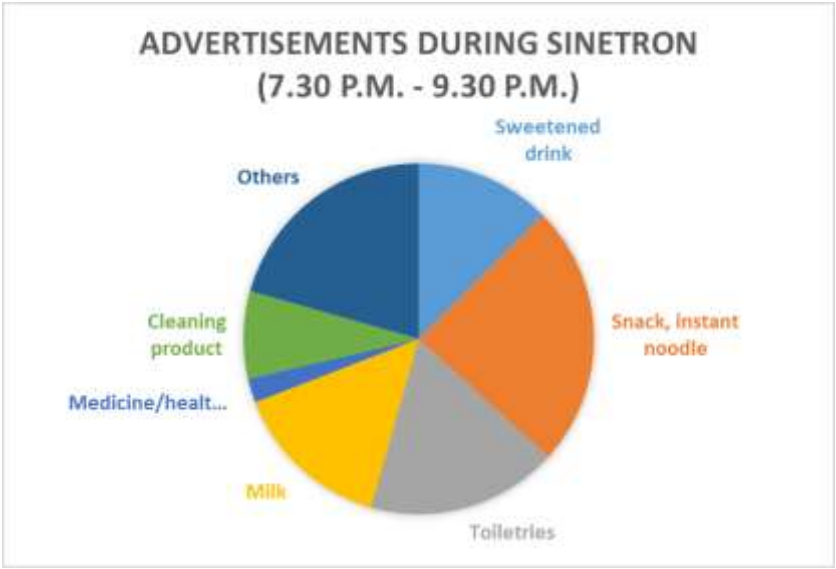
In N Sulawesi, where people comparatively watched the most TV, their exposure to TV could be seen through the following:

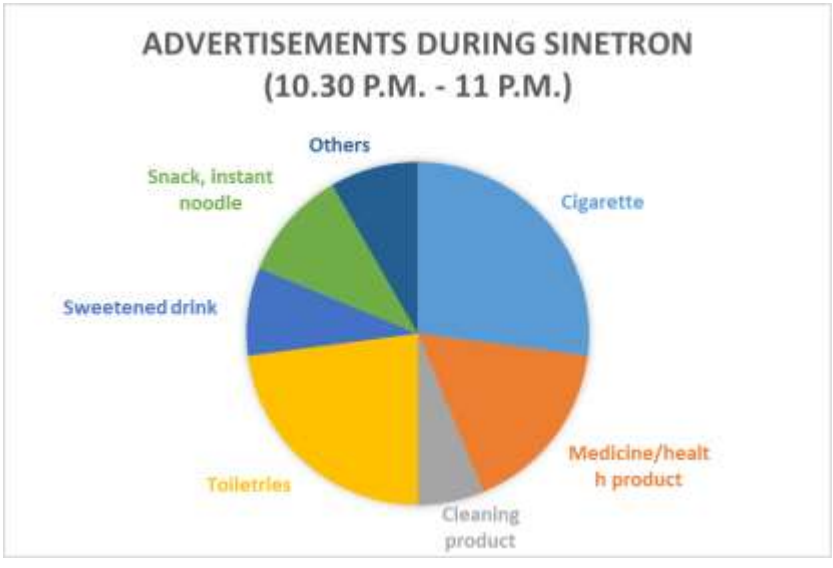
- Children in coastal N Sulawesi spoke about the differences in types of shampoo (*'one is for smooth hair, one is for silky'*).
- Teenage boys in coastal N Sulawesi mentioned needing to use deodorant, and many were using hair gels and lotions.
- Most teenage girls in coastal N Sulawesi were using face powder, lipstick, body lotion, mascara, and perfume.
- In inland N Sulawesi, children mentioned that girls should use 'Pantene' shampoo while guys should use 'Clear' brand.
- People in inland N Sulawesi were curious if the researchers had had their flights paid for because they had seen that happen for *dangdut* (Indonesian style of music mixing folk and traditional pop elements from South Asia) contestants in a show on the Indosiar TV station.
- One HHH father in inland N Sulawesi talked about a movie he was watching on TV as showing real history even though it was a fictional film.
- Girls in coastal N Sulawesi knew about germs from Lifebouy and Dettol advertisements
- One father explained the differences in his daughters growth and smartness from information in advertisements for the milk brands they favoured for each.

My 'father' was eager to explain the difference between his two daughters to me: '*look*' ,he said '*they are different because of the different milk they were given. This one*' he pointed to his elder daughter, *'had 'ChilKid' and is therefore tall. The younger one was given Berbelac and this is why she is smart'.* (she was indeed very talkative)

N Sulawesi

We carried out a mini survey of advertisements during the favourite *sinetrons* and this confirms the strong influence of TV advertising we observed in the study locations.





Professional advice

Although information from schools and health professionals appears sporadic some people did share that they had received advice, often in response to a particular ailment or condition rather than through a programme of education. For example in N Sulawesi one HHH had been told by a doctor to eat more vegetables and fish to avoid high cholesterol and another in C Kalimantan said the nurse had endorsed their consumption of fish telling them that it was very nutritious and healthy.

Health professionals felt they had, overall, limited influence and what influence they had was not consistent across locations. As noted above, some felt fed up as nobody takes any notice. The findings from our parallel study on frontline service providers suggests that they actually impart little information in sessions such as *posyandu* and concentrate more on taking measurements. Another RCA report noted that some mothers were frustrated that their questions were not answered or they felt the staff were rude to them. No home visits were being made to provide one on one information and advice to mothers and families.

Schools seem to have little influence, for example in coastal SE Maluku people said that school was not an influence on their food and hygiene habits. The people describes a school savings programmes designed to encourage saving of pocket money rather than daily snack eating but in the end the money was used to buy snacks together. The school in this sub-village was otherwise most concerned about hair length and dirty nails, and one boy mentioned not wanting to go to school because he was afraid of getting his hair cut by the teacher. In another sub-village, the teachers would check students' finger nails on Monday mornings, hitting students who had dirty nails with a ruler. A child in this location said the process was '*humiliating.*'

Family and community

Although people have aspirations toward urbanised lifestyles and modernity and are hugely influenced by TV advertising and life depicted in *sinetrons*, much of their behaviour is also shaped by tradition. Often people told us that since earlier generations had lived in the same way as they do now and had been healthy and fit, they are happy to adopt the default position of no change needed. For example, in SE Maluku they say they will continue to eat bitter cassava because that is their heritage. In C Kalimantan families feel that they should continue to live near the river as this is '*in our blood*'. Similarly, as mentioned before if people were healthy using drinking water from the river before, then there is no reason to suppose this is unhealthy now and if relatives have smoked all their lives and lived to old age then there, again, is no reason to change.

The Church was mentioned as an important part of sub-village life in coastal N Sulawesi, coastal SE Maluku, inland C Kalimantan, and remote inland C Kalimantan but only people in remote inland C Kalimantan mentioned it providing information related to nutrition and hygiene. In this location the Church held a weekly 'Fun Wednesday' where they gave advice such as '*eat veggies*'.

Discussion on the conundrums

In the introduction, we describe some of the 'conundrums' around hygiene and nutrition highlighted by the study commissioners. Some insights have been gathered from this RCA study to help explain some of these.

Why does stunting continue to persist? The study suggests that poor knowledge and practice around baby and infant feeding continues to be a key factor. Cost is not really an issue as people are mostly able to buy foods but are making ill-informed choices. On the whole the influence of traditional child rearing practices is less an issue as people are highly influenced by TV, advertising and urban lifestyle, although older people including mothers, mother in laws and a few traditional birth attendants may still perpetuate some of these traditional practices but the study finds that nowadays it is the mother who primarily make the decision about their babies feeding. This study and other RCA studies have not revealed any effect of women's involvement in groups on nutrient behaviours in the home. The study (and the parallel RCA study on health service providers) indicates a clear gap in information dissemination, outreach and counselling (discussed further in the study implications).

Regional variation? The RCA study was purposely designed to be undertaken in provinces and sub districts with relatively poor health outcomes which means it was less able to shed light on good practices and make comparisons.

A further study to understand what is happening in better performing areas may help. However, while there was much that was similar across the study locations, we found considerable local variation both in people's behaviours and health extension and response.

As highlighted in the study implications, this suggests that while some programmes would suit a nationwide approach (e.g. exclusive breastfeeding) context specific priorities need local attention and resolution (e.g. chronic sanitation problems in C Kalimantan).

Insights into supplementary food programmes; The study is not wide enough in scope to provide conclusions on these programmes but those formal programmes we observed (supplementary food from *puskesmas*, school biscuit programme) and those we discussed universally emphasise distribution rather than the important counselling and advice. Health providers complain that they suffer from periodic fund shortfalls making continuity of support difficult. Some mothers complain that they feel embarrassed being given these supplements although they are appreciated.

We also question what food supplements exactly are being provided (e.g. standard sweet biscuits in schools rather than nutrient biscuits) and to what extent the emphasis on weight gain is affecting the decisions to provide solid food too early.

Food choices: the study confirms that people are increasingly choosing packaged and convenience foods as a lifestyle choice even while claiming at the same time that local foods are better. While people consider that they eat well, diets continue to focus on rice and, in these study areas, fish. Children make many of their own food choices and are influenced by peer pressure and the TV. Local fruits, for example, are being discarded in favour of packaged products which claim to contain the same 'goodness'.

Exclusive breastfeeding: As suggested knowledge of breastfeeding is widespread but the health benefits are not. This suggests that people know they should do this but not why. There is particularly poor knowledge about the benefits of colostrum. Nobody we interacted with in the study had exclusively breast fed for six months and nobody was convinced that this would be sufficient for the babies' needs. There seems to be an emerging trend among employed mothers to leave their babies with the relatives and choosing not breastfeed.

Effect of open defeacation: Open defaecation has a clear link with high incidence of diarrhoea in C Kalimantan where people mostly use the river for defeacation but not in other areas, where people mostly use the sea. Different trigger tactics need to be geared to particular contexts.

Implications of Findings

The following policy implications have emerged from discussion and analysis of the findings by the RCA team and are provided from an authorial perspective. They follow the format of the report which was structured around the elements considered essential for behaviour change.

Is there Motivation for Change? Even though the study revealed many poor habits and practices, the findings suggest that people do not perceive there is a strong need to change their current nutrition and hygiene behaviours. This is a challenge for any behaviour change programming. If the right triggers and motivations are not identified and exploited there is little hope for lasting change. However, the study has identified some ways to promote positive behaviour change.

- Aspirational and Lifestyle Choices through TV: Given that TV is an increasingly trusted source of information and people are aspiring to adopt elements of a 'modern' lifestyle they see on TV, this could be capitalised on with simple, clear and contemporary health and hygiene messages provided through popular TV programmes (*sinetron*) and adverts. Simple messages about promoting breastfeeding and what germs are, how they spread and the linkage with sickness could be provided through TV shows and/ or adverts using the same approach as the successful adverts promoting toiletries and lifestyle products.
- Costs v Benefits - With the increasingly cash based economy people are very conscious of their family consumption costs. Promoting cost cutting/cost savings as an important element of choosing a different practice is likely to be an attractive motivator. For example, comparing the cost of formula milk with 'free' breastmilk, and highlighting that breastfeeding is actually better for the child's development, would be a very powerful TV or advertisement message that could motivate changes in practice. Similarly provision of needed vitamins from fresh fruit and vegetables grown at home or locally rather than from bought packaged drinks, foods and tablets might be an attractive motivator. What needs to be emphasised is this is 'less costly' (and good for you) not just this is 'good for you'.

- Availability and Convenience: Given that decisions around diet are often based around convenience and availability rather than ensuring diets are balanced and healthy, behaviour change programming could target ways to promote increased convenience and availability of healthy local products. This could be through promoting local, appropriate food production and encouraging local post harvest processing (e.g. drying and preserving fruits) to enable a more diverse range of balanced foods to become more easily accessible. There is already a positive perception that locally grown food is better and evidence of actions to make healthy local options more available. Highlighting that they are cheaper than snacks and packaged food, and promoting them as 'trendy' lifestyle choices would provide a stronger incentives for motivating changes in practice.

Addressing the problems of Access to Means for Change: The study highlights that access to safe drinking water and sanitation remains problematic despite widespread government programmes seeking to address these problems, and public facilities are often not used or not working. Some key points for consideration are:

- Mandatory funds for maintaining facilities: Water facilities are often broken, poorly maintained and/or not effectively operating during the dry season. Better designs taking into account seasonality supply issues and better quality of construction is needed. Mandatory sustainable and resourced maintenance plans should be established when constructing drinking water, toilet and waste facilities so that maintenance does not become a burden on communities and neglected.

- Public Toilets or Shared Toilets? Too often public toilets are not being used, broken and not considered 'public' for all but only for neighbouring households. Rather than continue provision of public toilets for general use, consideration could be given to strengthening the community's ownership of the toilets and providing 'shared toilets' for neighbouring households. As the study shows, locally arranged community rota systems for cleaning and sweeping have been working effectively in some locations for decades. If neighbouring households collectively maintain and clean their 'shared toilet' then they are more likely to be utilised. In order for this to be effective shared toilets should only be provided where there is a reliable all season water source, low maintenance materials are used and solar lights are provided for security and convenience at night.

- Location, location, location: The location of public/shared toilets in the village should also be more carefully considered. Too often public toilets are being located in inappropriate locations: on the land of authorities (head master, village head), on the main street where there is no privacy; too far from people's houses. If public/ shared toilets are being considered then where they are located in the village and on whose land should be carefully considered.

- Availability of All Season Water: Current practices and preferences for open defaecation in the river / ocean are often related to the opportunity to wash and freshen up at the same time. Ensuring private (and public/shared) toilets have readily available water access at all times is vital to promoting the changes in attitude and behaviour for people to use toilets and being able to wash at the same time.

People's Knowledge and Application: The study highlights that people's knowledge is derived from social norms and urban and media influences. This and other RCA studies in Indonesia also indicate that people are often frustrated by the lack of useful advice from health providers and feel that the media provides trusted information. The following emerge from the study for consideration:

- Emphasise process (software) and not hardware: The study shows that most of the current actions to promote better hygiene and nutrition is focused on the provision of physical facilities or provision of supplements (biscuits, vitamins, iron etc). Our observations reveal that health service providers and village elite prefer these programmes which have simple input – based metrics to report success. They talk about their frustrations trying to change behaviour which, in part, is because they say it takes time and people are resistant to change but also because the outcomes of advice and education efforts (processes) are not directly measured, although they can be. Our parallel RCA study of health service providers indicates that cadre (volunteer community health workers) feel underutilised. Their motivation to work for the community and their closeness to people can be used to affect changes in cultural norms and beliefs. Simple feedback systems where community members assess their cadres based on their own experiences of positive change could be considered as an important adjunct to enhancing cadre and TBAs effectiveness and the process of changing mindsets.

- Target Men and Children for Behaviour Change: The study revealed there is a growing preference among women for the use of private toilets rather than 'open' toilets (in the river/ocean). The study indicates this is because of increased safety and privacy, and also in some cases the apparent growing aspiration to own a private toilet. Sanitation awareness raising programmes promoting the construction and use of sanitary toilets should therefore specifically target men and children who need further convincing.

- The Agency of Children: Children demonstrated a strong degree of agency in choosing what food they bought and felt a sense of empowerment and status in being able to choose to purchase snacks and to share them with their class mates. Policies and practices may consider ways to increase the availability of healthier food options at school, and at kiosks around school, and promote these as the 'cool' choice.

- Homebased advice and care provided to avoid shame and stigma: Where supplemental food is provided consideration should be given to providing this and nutrition advice in private spaces. The study shows that frequently there is a sense of embarrassment and shame felt with requesting, or being given, food supplements at the *posyandu* as in some cases it was associated with parental failure or neglect. In addition, discrete home based counselling could be further emphasised in both hygiene and nutrition programmes supporting mothers and other caregivers. This would augment and reinforce positive TV messages, and help mitigate negative TV messages, given that these carry the most influence. The emphasis given on babies needing to put on weight is resulting in the further pervasive and unintended consequence of encouraging mothers and other caregivers to introduce solid foods early.

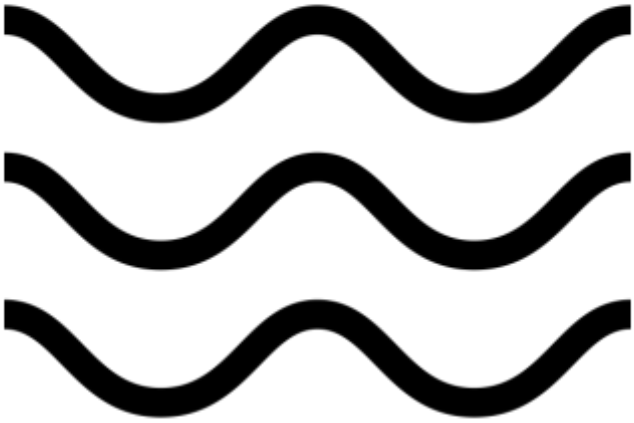
- Context Specific Policies and Interventions: In C Kalimantan where incidences of diarrhoea were seen to be increasing, people blamed external factors (pollution of the river, package food) rather than making any association with the need to change current hygiene practices. Prioritised action is required to highlight the dangers of current bad practices such as defeacating directly into the river where people swim and wash and/or drinking untreated river water.

- Safe disposal of baby faeces : The study highlights a particular lack of knowledge about the safe disposal of baby faeces and even where others use fixed places or toilets, baby faeces are often simply dumped near the home. Education around safe disposal of baby faeces (including washing soiled clothing) should be addressed and fixed places provided for baby defaecation.
- Build on emerging new knowledge: The study reveals a growing early knowledge of health issues such as high cholesterol, diabetes and hypo/hypertension. However, there was little understanding of the causes or impacts. At present health providers are not explaining well the connections between various diagnostics and the implications for health and nutrition. Simple messages, for example, linking consumption of sugar with diabetes, fat with cholesterol, salt with hypertension, will help people understand the need for change and monitor their dietary intake.
- Trigger with 'shock tactics' and simple explanation Messages on Simple Concepts: Cleanliness is associated with visually not being dirty, not with germs; colostrum as expired milk rather than essential milk for newborns. Simple messages are required to change current perceptions. These could be targeted through the key influencers and support (see below).

Influencers and Support: The study highlights that people are more likely to get information from TV and advertising and their local and wider networks than from formal health providers. Rather than change this as these sources are trusted, the study would suggest that these channels can be further supported:

- The Power of Television: TV and advertising have become the most important and trusted sources of information, however messages are often being misinterpreted and/or misunderstood due to advertising commercial spins. Some key ways in which TV could be used to promote positive behaviour changes are:
- Creatively Using TV: Contemporary and eye-catching messages and adverts could be developed that are aspirational and not instructional and can be easily understood. For example, simple and powerful messages and adverts about the cost and benefits of breastmilk vs formula milk; an animation on germs linking this to sickness.
- Embedded in Popular Culture / Lifestyle: Utilising popular TV programs and tailoring messages to resonate with lifestyle preferences could be a powerful way to provide mass dissemination of key messages. Given the wide popularity of TV shows (especially *sinetron* (soap operas) even in remote parts of Indonesia, consider using this for behaviour change messages, and using celebrities to advertise and make products seem 'cool'.
- Regulating Advertising: a major problem at the moment is that the advertising spin is often being misunderstood by people. What is said and how it is said should be regulated to avoid false representation and misinterpretations. Some good practices exist such as some baby milk producers endorsing that breast feeding is always best but these declarations can be made mandatory for all their TV advertisements and package labelling. Advertising standards could also impose regulations on what can be advertised at peak watching times (especially when children watch) as they have done with cigarette advertising as well as imposing standards around mis - representation of the health and nutrition benefits of those products.

- TBAs are important, respected members of the community who have been delivering in many cases exceptional services to the community, however some of their knowledge and practices are lacking and/or misguided. Up to date and accurate information should be provided to TBAs so they can practice, inform and instigate changes in practices.
- Cadres are under-utilised resource for supporting home visits: As found in this study and further elaborated in the complementary study an health frontline service provider. Cadres, along with TBAs, are local, willing and trusted. They can build relationships with families to support them in privacy on their own home. Up to date and accurate information should be provided to them so they can practice, inform and instigate changes and become integral part of hygiene and nutrition programmes.



Annexes

Annex 1: Research Team

Research Team

Team Leader

Peter Riddell-Carre
Steven Ellis

Technical Advisor

Dee Jupp

Team Member

N Sulawesi :
Rizqan Adhima
Putu Adi Sayoga
Upik Sabainingrum

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Peter Riddell-Carre

SE Maluku :
Denny Firmanto Halim
Siti Alifah Ahyar
Abdul Harris Martakusumah
Steven Ellis

Annex 2: Areas of Conversation

Context

Rural/peri-urban; Remoteness / topography / physical access; Size of community, main livelihoods, culture/religion, access to facilities (esp. related to health)

Your household/family

Profile of HHH: age; education; gender; culture; religion, skills; dependents; nature of work (formal/ informal, types of service availed); duration/ frequency

Perceptions of own health status. Observation of health status (physical appearance: healthy vs. sick looking; who is healthy; who is sick)

Family: (family tree); ages; gender; education; livelihoods; workloads (role differences, responsibilities)

House: location; building materials; layout, toilet/ drinking water arrangements ; key assets (land, livestock, work related equipment; electrical equipment; phones etc.)

Hygiene behaviour/lifestyle

Children; daily habits/preferences (bathing, hand-washing, defecating, playing); use of sanitary facilities (comfort vs. practicality);;

Adults: daily habits/preferences (bathing, washing hand-washing, defecating, cooking, farming); use of/preference for sanitary options (private vs. public, comfort vs. practicality); constraints to change, social activities related to hygiene (e.g. food preps. for social events, bathing, washing, etc); animal rearing and keeping; water storage and treatment; life-cycle changes of hygiene practices and requirements (esp. among the elderly); waste disposal (solid, grey water incl. baby waste) use of sealed waste containers/incineration etc; taboos;

Maternal/infant: use of baby utensils; bathing infants (how, when, why); labour hygiene (practices, equipment), breast feeding hygiene

Access

(Also probe with children and the elderly)

Nutrition: food sources (farming, credit, purchase, social assistance/charity, etc); costs (and opportunity costs); food availability (seasonality and events); food patterns and distribution (across time); eating hierarchy (in family and/or social events); pocket money (and use);

Hygiene: water sources (quality, costs, distance, regularity/ seasonality); ownership sanitary facilities (costs, private and/or public: toilets, ditches, dumping ground); government assistance); assistance from govt., NGOs,

Health services: costs (and opportunity costs); distance; staff (availability, attendance); medicine and preferences (over the counter, prescriptions, traditional herbs); barriers (language, culture, religion, race power hierarchy)

Nutrition behaviour/lifestyle

Children: food preferences and options (home-made food; outside home food (packaged food/snacks, canteen, warung), leftover); consumption of adult food and seasonings ((sugar, salt, MSG, etc); snacking; eating frequency and times; pestering; learning to cook (when, who teaches and which children);

Adults: daily meals (preferences and options); consumption of seasonings; eating frequency and times; consumption of appetite suppressers (cigarettes, tobacco, alcohol, betel nuts, etc.); food preparation/processing (who, when, how); consumption of leftover (and method of reheating); priorities (of HH's income) on food; economic means vs. nutrition status; life-cycle changes of nutrition; changes to accommodate nutrition needs and social obligations, food consumption and seasonality /hardship periods

Infant/maternal: pre-natal, infant and child feeding; pregnancy and birth care (midwives vs. traditional birth attendants (TBA), use of food (nutrition/ necessity vs. comfort); weaning practices and introduction of solid food; food preparation; breast feeding practices; use and view of supplementary food (role as motivator).

Chat, explore, probe, present scenarios 'what if', introduce debate 'some people think', listen, draw, explain, dream, play

Perception/Understanding

(Also probe with children and the elderly)

General understanding: being healthy (fat vs. skinny, tall vs. short, appearances); causes of illnesses (and types of common illnesses including non-communicable diseases (NCD)), superstitions and local wisdom; curative vs. preventive; knowledge (and use) of health records (baby monitoring books, *Kartu Ibu dan Anak, Kartu Menuju Sehat, Jaminan Kesehatan Sosial* etc)

Nutrition: good vs. bad food; healthy vs. unhealthy food; eating differently; local beliefs (traditional, religious); status symbols afforded to certain food items (poor people vs. rich people's food); perception of malnutrition (awareness in the community; shame; response); view on breastfeeding

Hygiene: clean vs. dirty; parents' perspectives about infant hygiene; local beliefs; status (ownership of sanitary facilities, "proper" hygiene practices); economic means vs. hygiene; illnesses caused by poor hygiene.

Support and influence

Support: use and preference of health services (formal vs. informal, self-managed); level of understanding of support and engagement (family, community, health providers, government, NGOs, etc); support from teachers and attitude; attitude towards and of health providers (formal vs. informal, level of trust); incentives and motivations; perception of quality; support during pregnancy; caring practices for the elderly and sick, view of government/NGOs' assistance

Influence/motivation: role models (family members, neighbours, friends, health providers, local and/or religious leaders); decision making dynamics (family, community, health facilities); care-giving and parenting roles; media and/or networks of information; acceptability of advice (position, age, status, attitude, relations, etc.)

Aspirations and Consequences

Aspirations: 'what if', what needs to improve; expectations for assistance; future dreams for themselves and others

Consequences: anticipated futures, knowledge of cause /effect, responding to poor nutrition/ hygiene (family changes, relationships, shame, psychological and social impacts, costs (and opportunity costs), changed roles, hostility, mobility and independence,

Annex 6 : List of People Met

Category	M	F
HHH adults	42	35
HHH children	62	52
FHH adults	154	278
FHH children	163	152
Formal FHP:		
GP	3	-
Dentist	-	-
Nurse	13	6
Midwife	1	-
Kesling (environmental health)	-	-
Kesmas (public health)	-	-
Cadre	4	-
PK head	-	-
Other formal FHP:	-	-
…		
…		
Informal FHP:		
TBA	-	1
Masseur	-	-
Traditional herb maker	-	-
Traditional healer	1	-
Other informal FHP:	-	-
Medicine seller (type):		
Pharmacy/med-shop	-	-
Ordinary kiosk/stall	4	-
Other seller	-	-
Other FHP not yet listed:		
Principal	-	-
Teachers (accredited)	-	-
Guru honor	9	5
NGO	-	-
Caretakers/cleaners	-	-
Stationery/photocopy owners	-	-
SD students	75	94
SMP/SMK(A) students	92	81
Kepala desa	6	-
Kepala dusun/RT	-	5
Kepala suku	-	-
Church leaders	3	-
Mosque/pesantren/wirid leader	-	-
Farmers	190	54
Fishermen	124	43
Transport operators	4	-
Shop/kiosk keepers	45	42
Local government staff	1	-
Army/police	-	-
TOTAL	996	848
	1844	

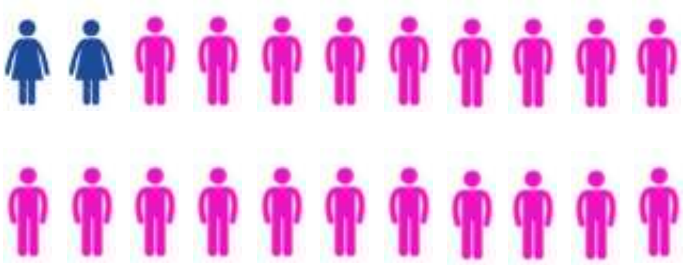
Annex 4: Host households' information

***Total no. of host household = 22**

Family

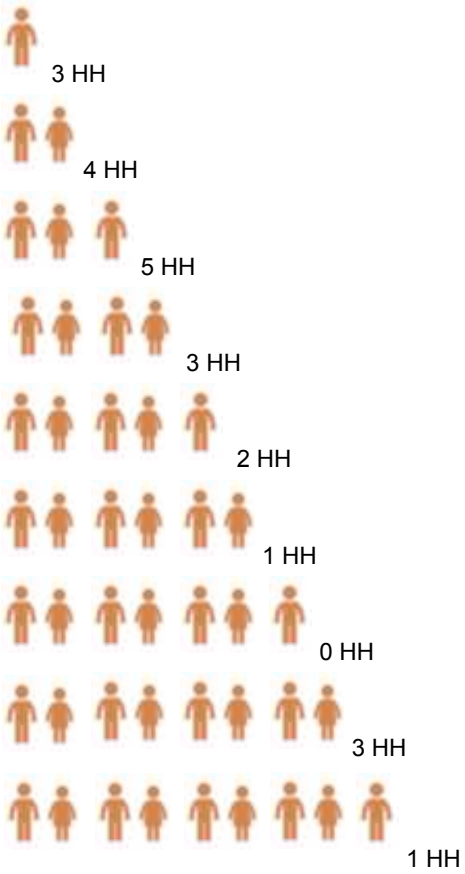
Nuclear	Extended
16	6

Head of household

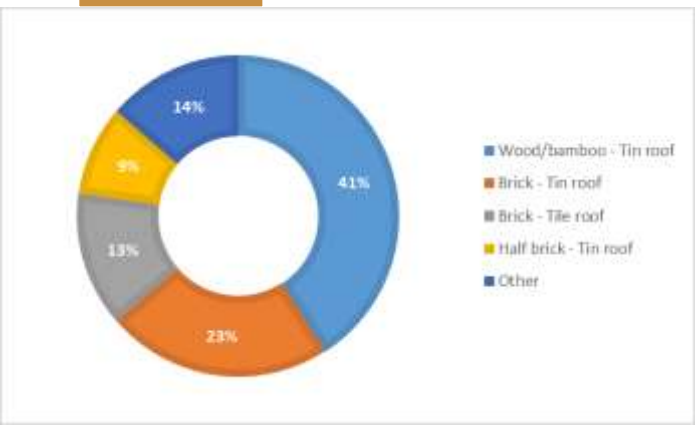


2 women, 20 men

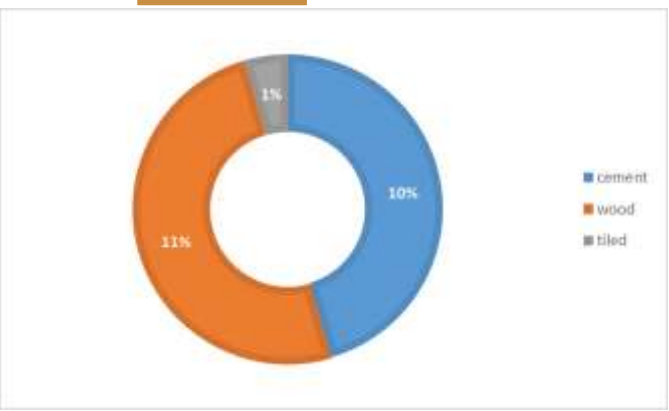
No. of children currently living in house



House Type



Floor Type



% with Electricity	
Metered electricity	41%
Generator	23%
Solar panel	4%
No electricity	32%

% with Toilet	
Toilet outside	36%
Toilet inside	32%
No toilet	32%

Distance from facilities

	Walking time		Time by motorbike / car / boat	
	< 15 mins	15 – 30 mins	< 15 mins	15 – 30 mins
School	16 HH	6 HH	20 HH	2 HH
Health centre	18 HH	4 HH	20 HH	2HH
Market	5 HH	17 HH	8 HH	14 HH

Main Livelihood

Farming	Fishing	Daily labour	Informal business	Village Officer
8	7	4	2	1

Additional livelihood

Additional / Main	None	Fishing	Farming	Daily labour	Village admin	Forest product	Informal business
Farming	2	1		1	1	1	3
Fishing			5			2	2
Daily labour	1					3	
Informal Business			1	1			
Village officer	1						

Only 4 of 22 HH has single livelihood

Offsetting Bias

Like all research methods, the Reality Check Approach takes note of and attempts to offset potential bias. The following is an analysis of the potential for bias and the way the researchers in this study and through the approach itself sought to minimise these biases.

Bias from being researched

The approach benefits from being low key and unobtrusive. It seeks to provide the best possible conditions to listen, experience and observe ordinary daily lives and deliberately seeks to reduce the biases created by an external research presence. The team members take time to get to know the families they stay with, work alongside them and adapt to their pace and way of life. Ideally they seek to listen to family conversations and interactions rather than engage in lengthy question and answer sessions. Considerable effort is made to ensure the host families feel comfortable and at ease so they tell their own stories and explain their realities in their terms and in their own way. This goes some way to ensuring that the families do not feel their answers should be filtered, measured or in any way influenced by the presence of the outsiders. The team members actively suspend judgment. Considerable effort is made in pre-field team training to make the researchers aware of their own attitudes and behaviour which may be conducive or obstructive to openness and trust among those they interact with.

Bias from location

At least three team members stayed in each village (*desa*), each living with a different poor family. All homes were at least 10 minutes walking distance from one another (and most were considerably more than this) so that each team member could maximise the number of unique interactions with people and service providers in the community and avoid duplication with other team members.

Researcher bias

A minimum of three researchers were allocated to each village but they worked independently of each other thus allowing for more confidence in corroborating data. Each village team underwent a day-long debriefing to review information and findings emerging from each location immediately after completing the immersion.

This enabled a high level of interrogation of the observations, experiences and responses and reduced the possibility of individual researcher bias. Furthermore, following completion of the entire baseline study, a validation workshop was held with the entire research team to analyse and confirm the main findings and ensure that both specificity and diversity in the findings were captured, along with more generalisable findings.

Evaluation framework bias

Rather than using research questions which can suffer from normative bias, the team used a broad thematic checklist of areas of enquiry. These themes, summarised in annex 2, provided the basis for conversation topics rather than prescribed questions. The team members engaged with family members and others at appropriate times on these issues. For example, while cooking the meal, opportunities might arise to discuss what the family usually eats, when they eat and who eats what and while accompanying children to school, field opportunities arise to discuss access to, cost and experience of schooling.

Triangulation

An integral part of the Reality Check Approach methodology is the continuous triangulation that ensues. Conversations take place at different times of the day and night allowing unfinished conversations or ambiguous findings to be explored further. Conversations are held with different generations separately and together in order to gather a complete picture of an issue. Conversations are complemented by direct experience (for example, visits to health clinics, accompanying children to school, working with families on their farms) and observation (family interaction/dynamics). Cross checking for understanding is also carried out with neighbours, service providers (for example, traditional birth attendants, community health workers, school teachers and teashop owners) and power holders (informal and elected authorities).

Conversations are at times complemented with visual evidence or illustrations, for example by jointly reviewing baby record books or school books as well as through various activities, such as drawing maps of the village, ranking household assets, scoring income and expenditure proportionally, and so on. In the course of four intensive days and nights of interaction on all these different levels, some measure of confidence can be afforded to the findings.

Confidentiality, anonymity and continuing non-bias in project activities

The study locations are referred to by code only and the team is at pains to ensure that neither the report nor other documentary evidence, such as photos, reveal the locations or details of the host households. Faces of householders and images which reveal the location are either not retained in the photo archive or identities are digitally removed. This is partly to respect good research practice with regard to confidentiality but also has the benefit of ensuring that no special measures or consideration are given to these locations or households in the course of the programme. All families are asked to give their consent for their stories and photos to be recorded and shared.

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